

Weekly Commentary 15 – April 2023

The Rise of China's Economic Competitiveness

There has been talk for a number of years that China will become the number one economy in the world. It hasn't made it yet. So, is that all just hype? Or has the pace of catching up to the US, the current number one economy, been held back by Covid?

Well, the race is on again...

Last week, China reported an unexpected rise in its exports. Being the export-oriented economy that it is, this is an important indicator of China's growth. Exports rose by 14.8% last month compared to a year ago, partly boosted by a spike in shipments to SEAsian countries and resilient demand from S Korea and Europe. Analysts were forecasting a 7% fall, and the surprisingly strong results were the biggest deviation from forecasts since 2018.

Here is a more detailed account of this development from the Wall Street Journal.

HONG KONG—China's exports bounced back sharply in March, a surprise that reflects greater demand in Asia and Europe as well as improved supply chain conditions.

Another major reason that was behind the unexpectedly strong result: A more than doubling of Chinese exports to Russia in March from a year earlier, highlighting warming economic ties between the two like-minded neighbors.

Outbound shipments from China soared 14.8% in March from a year earlier, data from China's customs bureau showed Thursday, reversing the 6.8% decline recorded during the first two months of 2023 and ending a nearly half-year string of such drops stretching back to October.

The result handily topped the 7% year-over-year contraction forecast by economists polled by The Wall Street Journal.

Imports into the world's second largest economy fell by 1.4% in March from a year earlier, better than the 5% drop predicted by polled economists and the 10.2% decline in the first two months of the year.

The better-than-expected outcome reflected a pickup in domestic activity after Beijing began abruptly dismantling Covid restrictions late last year that had hurt consumer sentiment and disrupted factory production.

The unexpectedly strong figures also reflect Beijing's growing economic ties with Moscow as its tensions with the West escalate.

Chinese exports to Russia more than doubled in March from a year earlier to a record \$9 billion, according to calculations by the Journal based on the customs data, compared with a roughly 20% gain during the first two months of this year. Economists attributed the magnitude of the upswing to

the low base of comparison from a year earlier in March 2022, just as Western countries began imposing sanctions on Russia in the wake of its Ukraine invasion.

Goods shipments to Russia totaled \$24 billion in the first quarter, up 48% from a year earlier—though they still account for only 3% of China’s total exports.

In December, Russian President Vladimir Putin said he expected total trade between the two countries to reach \$200 billion by 2024. Trade between Russia and China grew more than 30% last year to \$189 billion.

The unexpected overall resilience in China’s export data bolstered some economists’ forecasts of gross domestic product growth in the first quarter to more than 4%, up from 2.9% in the last quarter of 2022.

In the longer term, however, economists and Chinese officials remain cautious about how much trade can power China’s overall economy through the end of the year.

While inflation appears to be easing in the U.S., the Federal Reserve is likely to consider another interest-rate rise in May, a move that could curb consumer spending for a longer period of time.

The World Trade Organization last week forecast a 1.7% gain in the global goods trade for this year, up from its previous forecast of 1%—though that is still slower than last year’s 2.7% growth, thanks in part to geopolitical tensions and monetary tightening.

Economists from Capital Economics told clients in a note Thursday that China’s export upswing “may soon give way to a renewed downturn,” adding that they expect most developed economies to slip into recession this year.

Any weakness on the trade front would complicate Beijing’s efforts to ensure a smooth post-Covid recovery following an initial snapback after the lifting of restrictions, led by strong signs of life in the services sector.

“Flagging external demand and factors including geopolitics will bring greater challenges,” said Lü Daliang, a spokesman for the General Administration of Customs. “We still need to work hard to let trade play a supporting role to the economy.”

Last week, China’s new Premier Li Qiang called for more support for manufacturers selling to developed economies, as well as deepening ties in the neighboring markets such as the Association of Southeast Asian Nations, one of China’s largest trading partners.

China’s exports to Asean jumped 35.4% in March from a year earlier to \$56 billion, accelerating from a 9% increase during the first two months of the year. Exports to the European Union edged up 3.4% from a year earlier in March after contracting 12% in the first two months, while shipments to the U.S. fell 7.7%, narrowing from a 22% drop in the January-to-February period, Thursday’s data showed.

Exports to Russia likely contributed 1.9 percentage points to March’s year-over-year export growth, while exports to Asean contributed 5.6 percentage points.

The degree to which overseas demand for Chinese-made goods slows will determine the amount of policy support the government is likely to provide, Goldman Sachs economists told clients in a report last week.

Goldman found that demand for Covid-related goods fell the most in 2022, while exports of housing-related products such as furniture could soften further this year, as rate increases by central banks around the world weigh on housing markets in many developed countries. New energy vehicles, however, should continue to boost China's overall exports thanks in part to policy support from Beijing.

Grace Zhu and Xiao Xiao in Beijing contributed to this article.

The Wall Street Journal probably takes no pleasure in reporting that China is doing economically well, but since statistics like these don't lie, they did report it. But overall, the tone of the article is that well, this would NOT last long...it reveals the same sour-grapes attitude that is so prevalent in western mainstream media reporting on China these days.

The WSJ also tried to make light of the Chinese rebound. They portrayed the increase to be due to a deepening economic relationship with Russia, a party among friends so to speak and no cause for real celebration. Actually, my own comment is, so what? If two friendly countries can trade with each other and profit from it, it is as good as their trading with countries less friendly and still make money. What's the difference? Well, I guess what the WSJ is trying to imply, is that either Russia does not have many friends to trade with and hence they have to depend on China or that China's export drive is depending on a small circle of friends. Also, we thought that the relationship between China and Russia was simply that Russia would sell energy to China. That's an import, not an export for the Chinese. Now that we are looking at an increase of exports from China to Russia as well, does it mean that the Russian economy is going strong or that China has been able to replace Western exports to the sanctioned country very quickly. It certainly looks like a flourishing economic relationship in both directions.

The other thing that seems to be missing in the WSJ's report is that the growth in Chinese exports is NOT simply due to this trade with Russia and SEAsia. It does not say that a lot of the new exports is due to electric vehicles, solar products and lithium batteries, which announces that the export growth is due to China's apparent success in a new technology.

China is emerging as the top electric vehicle manufacturer in the world, and people are still thinking electric cars is all about Tesla, and hence an American thing. Well, not anymore. The export data are showing that China is now occupying pole position in the industry. This is no mean achievement. I am sure that the Chinese are ecstatic about this.

Perhaps it is interesting for us to examine how China got there.

The automobile industry is of strategic importance to the world's economy. According to the International Organization of Motor Vehicle Manufacturers, the automobile industry has a global turnover of almost \$2 trillion, which, if it were a country, would make it the world's sixth largest economy.

In addition, the automobile industry accounts for over 5 per cent of the world's manufacturing jobs and that each directly created job supports at least another five jobs indirectly. But it is also an industry in a bit of a crisis. There are people who point out that it has both an adverse effect on public health, through the pollution it causes, and also that it contributes to global warming through carbon dioxide emissions from motor vehicles. For all the benefits the internal combustion engine brings to mankind, it is now recognized that there are side effects which have to be dealt with. Other countries in the world besides the G7 countries are now rapidly growing their middle class – the car buying segment of every population. And they are also contributing their share of carbon emissions.

There was a period, about ten years ago, when pollution from vehicles and industrial activity was so bad in China that there was widespread public agreement that pollution will need to be controlled, even as GDP grows. The government in Beijing took note of these demands for a low-pollution environment, and shifted growth policy away from the relentless pursuit of GDP to a cleaner path of lower pollution growth. Of particular importance is the need to avoid the cycle of development where growth leads to urbanization, middle class expansion and the massive ownership of cars. Which then leads to vehicular pollution. The Chinese government wants to avoid all that.

Specifically, the Chinese are very motivated to have their inevitably huge population of cars in their 660 cities not create the smog that has been urban plight in so many countries around the world. As such, one of the major objectives of urbanization in China is to make new energy vehicles – a classification that covers both pure and hybrid electric vehicles. This is a key element of its industrial strategy.

It seems to have worked marvellously well.

Here is an article from the MIT Technology Review, dated Feb 21, 2023 by Zeyi Yang, about this achievement:

Before most people could realize the extent of what was happening, China became a world leader in making and buying EVs. And the momentum hasn't slowed: In just the past two years, the number of EVs sold annually in the country grew from 1.3 million to a whopping 6.8 million, making 2022 the eighth consecutive year in which China was the world's largest market for EVs. For comparison, the US only sold about 800,000 EVs in 2022.

The industry is growing at a speed that has surprised even the most experienced observers: "The forecasts are always too low," says Tu Le, managing director of Sino Auto Insights, a business consulting firm that specializes in transportation. This dominance in the EV sector has not only given China's auto industry sustained growth during the pandemic but boosted China in its quest to become one of the world's leaders in climate policy.

How exactly did China manage to pull this off? Several experts tell MIT Technology Review that the government has long played an important role—propping up both the supply of EVs and the demand for them. As a result of generous government subsidies, tax breaks, procurement contracts, and other policy incentives, a slew of homegrown EV brands have emerged and continued to optimize new technologies so they can meet the real-life needs of Chinese consumers. This in turn has cultivated a large group of young car buyers.

But the story of how the sector got here is about more than just Chinese state policy; it also includes Tesla, Chinese battery tech researchers, and consumers across the rest of Asia.

When did China start investing in EVs and why?

In the early 2000s, before it fully ventured into the field of EVs, China's car industry was in an awkward position. It was a powerhouse in manufacturing traditional internal-combustion cars, but there were no domestic brands that could one day rival the foreign makers dominating this market.

"They realized ... that they would never overtake the US, German, and Japanese legacy automakers on internal-combustion engine innovation," says Tu. And research on hybrid vehicles, whose batteries in the early years served a secondary role relative to the gas engine, was already being led by countries like Japan, meaning China also couldn't really compete there either.

This pushed the Chinese government to break away from the established technology and invest in completely new territory: cars powered entirely by batteries.

The risks were extremely high; at this point, EVs were only niche experiments made by brands like General Motors or Toyota, which usually discontinued them after just a few years. But the potential reward was a big one: an edge for China in what could be a significant slice of the auto industry.

Why EVs won't replace hybrid cars anytime soon

Plug-in hybrids won't get the world to zero emissions, but they can help cut climate impacts somewhat. Toyota is betting they'll stay in the mix for a while.

Meanwhile, countries that excelled in producing gas or hybrid cars had less incentive to pursue new types of vehicles. With hybrids, for instance, "[Japan] was already standing at the peak, so it failed to see why it needed to electrify [the auto industry]: I can already produce cars that are 40% more energy efficient than yours. It will take a long time for you to even catch up with me," says He Hui, senior policy analyst and China regional co-lead at the International Council on Clean Transportation (ICCT), a nonprofit think tank.

Plus, for China, EVs also had the potential to solve several other major problems, like curbing its severe air pollution, reducing its reliance on imported oil, and helping to rebuild the economy after the 2008 financial crisis. It seemed like a win-win for Beijing.

China already had some structural advantages in place. While EV manufacturing involves a different technology, it still requires the cooperation of the existing auto supply chain, and China had a relatively good one. The manufacturing capabilities and cheap commodities that sustained its gas-car factories could also be shifted to support a nascent EV industry.

So the Chinese government took steps to invest in related technologies as early as 2001; that year, EV technology was introduced as a priority science research project in China's Five-Year Plan, the country's highest-level economic blueprint.

Then, in 2007, the industry got a significant boost when Wan Gang, an auto engineer who had worked for Audi in Germany for a decade, became China's minister of science and technology. Wan had been a big fan of EVs and tested Tesla's first EV model, the Roadster, in 2008, the year it was released. People now credit Wan with making the national decision to go all-in on electric vehicles. Since then, EV development has been consistently prioritized in China's national economic planning.

So what exactly did the government do?

It's ingrained in the nature of the country's economic system: the Chinese government is very good at focusing resources on the industries it wants to grow. It has been doing the same for semiconductors recently.

Starting in 2009, the country began handing out financial subsidies to EV companies for producing buses, taxis, or cars for individual consumers. That year, fewer than 500 EVs were sold in China. But more money meant companies could keep spending to improve their models. It also meant consumers could spend less to get an EV of their own.

From 2009 to 2022, the government poured over 200 billion RMB (\$29 billion) into relevant subsidies and tax breaks. While the subsidy policy officially ended at the end of last year and was replaced by a more market-oriented system called "dual credits," it had already had its intended effect: the more than 6 million EVs sold in China in 2022 accounted for over half of global EV sales.

The government also helped domestic EV companies stay afloat in their early years by handing out procurement contracts. Around 2010, before the consumer market accepted EVs, the first ones in China were part of its vast public transportation system.

"China has millions of public transits, buses, taxis, etc. They provided reliable contracts for lots of vehicles, so that kind of provided a revenue stream," says Ilaria Mazzocco, a senior fellow in Chinese business and economics at the Center for Strategic and International Studies. "In addition to the financial element, it also provided a lot of [road test] data for these companies."

*But subsidies and tax breaks are still not the whole picture; there were yet other state policies that encouraged individuals to purchase EVs. **In populous cities like Beijing, car license plates have been rationed for more than a decade, and it can still take years or thousands of dollars to get one for a gas car. But the process was basically waived for people who decided to purchase an EV.***

Finally, local governments have also sometimes worked closely with EV companies to customize policies that can help the latter grow. For example, BYD, the Chinese company currently challenging Tesla's dominance in EVs, rose up by keeping a close relationship with the southern city of Shenzhen and making it the first city in the world to completely electrify its public bus fleet.

Okay, so China is the global EV leader. But how does Tesla, the most popular individual producer of EVs, fit in?

The development of China's EV industry has actually been deeply intertwined with Tesla's rise as the biggest EV company.

When the Chinese government handed out subsidies, it didn't limit them to domestic companies. "In my opinion, this was very smart," says Alicia García-Herrero, chief economist for Asia Pacific at Natixis, an investment management firm. "Rather than pissing off the foreigners by not offering the subsidies that everybody else [gets], if you want to create the ecosystem, give these subsidies to everybody, because then they are stuck. They are already part of that ecosystem, and they cannot leave it anymore."

Beyond financial incentives, local Chinese governments have been actively courting Tesla to build production facilities in the country. Its Gigafactory in Shanghai was built extremely quickly in 2019 thanks to the favorable local policies. “To go from effectively a dirt field to job one in about a year is unprecedented,” says Tu. “It points to the central government, and particularly the Shanghai government, breaking down any barriers or roadblocks to get Tesla to that point.”

Today, China is an indispensable part of Tesla’s supply chain. The Shanghai Gigafactory is currently Tesla’s most productive manufacturing hub and accounts for over half of Tesla cars delivered in 2022.

But the benefits have been mutual; China has gained a lot from Tesla as well. The company has been responsible for imposing the “catfish effect” on the Chinese EV industry—meaning it’s forced Chinese brands to innovate and try to catch up with Tesla in everything from technology advancement to affordability. And now, even Tesla needs to figure out how to continue being competitive in China because domestic brands are coming at it hard.

What role did battery technology play?

The most important part of an electric vehicle is the battery cells, which can make up about 40% of the cost of a vehicle. And the most important factor in making an EV that’s commercially viable is a battery that’s powerful and reliable, yet still affordable.

Chinese companies really pushed battery technology forward on this front, says Max Reid, senior research analyst in EVs and battery supply chain services at Wood Mackenzie, a global research firm.

More specifically, over the past decade Chinese companies have championed lithium iron phosphate batteries, known as LFP technology, as opposed to the lithium nickel manganese cobalt (NMC) batteries that are much more popular in the West.

Meet the new batteries unlocking cheaper electric vehicles

LFP batteries are safer and cheaper, but initially they weren’t the top choice in cars because they used to have much lower energy density and perform poorly in low temperatures. But while others were ditching LFP technology, a few Chinese battery companies, like Contemporary Amperex Technology Co. Limited (CATL), spent a decade researching them and managed to narrow the energy density gap.

Today, the EV industry is again recognizing the benefits of LFP batteries, which made up one third of all EV batteries as of September 2022. “That shows you how far LFP has come, and that’s purely down to the innovation within Chinese cell makers. And that has brought Chinese EV battery [companies] to the front line, the tier-one companies,” says Reid.

China has also had one key advantage in battery manufacturing: it controls a lot of the necessary materials. While the country doesn’t necessarily have the most natural resources for battery materials, it has the majority of the refinery capacity in the world when it comes to critical components like cobalt, nickel sulfate, lithium hydroxide, and graphite. García-Herrero sees China’s control of the chemical materials as “the ultimate control of the sector, which China has clearly pursued for years well before others even figured that this was something important.”

By now, other countries have indeed realized the importance of battery materials and are signing deals with Chile and Australia to gain control of mines for rare-earth metals. But China’s head start has given domestic companies a longstanding stable supply chain.

“Chinese-made EV batteries ... not only come at a discount but also are available in much higher quantities because the manufacturing capacity has been built out in China and continues to be built out,” says Reid.

What does China’s EV market look like now?

As a result of all this, China now has an outsized domestic demand for EVs: according to a survey from the US consulting company AlixPartners, over 50% of Chinese respondents were considering battery-electric vehicles as their next car in 2021, the highest proportion in the world and two times the global average.

There are a slew of Chinese-built options for these customers—including BYD, SAIC-GM-Wuling, Geely, Nio, Xpeng, and LiAuto. While the first three are examples of gas-car companies that successfully made the switch to EVs early on, the last three are pure-EV startups that grew from nothing to household names in less than a decade.

*And the rise of these companies (and other Chinese tech behemoths) coincided with **the rise of a new generation of car buyers who don’t see Chinese brands as less prestigious or worse in quality than foreign brands.** “Because they’ve grown up with Alibaba, because they’ve grown up with Tencent, they effectively were born into a digital environment, and they’re much more comfortable with Chinese brands versus their parents, who would still rather likely buy a German brand or a Japanese brand,” says Tu. The fact that these Chinese brands have sprinkled a little bit of nationalism into their marketing strategy also helps, Tu says.*

Can other countries replicate China’s success?

Many countries are almost certainly now looking at China’s EV experience and feeling jealous. But it may not be that easy for them to achieve the same success, even if they copy China’s playbook.

While the US and some countries in Europe meet the objective requirements to supercharge their own EV industries, like technological capability and established supply chains, ICCT’s He notes that they also have different political systems. “Is this country willing to invest in this sector? Is it willing to give special protection to this industry and let it enjoy an extremely high level of policy priority for a long time?” she asks. “That’s hard to say.”

“I think the interesting question is, would a country like India or Brazil be able to replicate this?” Mazzocco asks. These countries don’t have a traditional auto industry as strong as China’s, and they also don’t have the Chinese government’s sophisticated background in handling massive industrial policies through a diverse set of policy tools, including credits, subsidies, land use agreements, tax breaks, and public procurements. But China’s experience suggests that EVs can be an opportunity for developing countries to leapfrog developed countries.

“It’s not that you can’t replicate it, but China has had decades of experience in leveraging these [systems],” says Mazzocco.

Chinese brands are now looking to other markets. What challenges are they facing?

For the first time ever, Chinese EV companies feel they have a chance to expand outside of China and become global brands. Some of them are already entering the European market and even considering coming to the US, despite its saturated market and the sensitive political situation. Chinese gas cars could never have dreamed of that.

Nevertheless, their marketing language and strategies may have to change for other markets. They will need to adapt to the different technical standards and preferred software services. And they will have to learn to accommodate different consumption habits and customer service requests.

“I think we take for granted that a company like Toyota or Honda is comfortable navigating different markets, but that’s taken decades of experience to build up for these companies, and it didn’t always look pretty for them,” Mazzocco says.

In the current geopolitical environment, these companies are also making themselves vulnerable by entering more countries that aren’t exactly maintaining good relations with China. Some of them may want to protect their own homegrown auto industries, and others may even see the entrance of Chinese brands as a national security risk.

For these and other reasons, the most growth potential will likely come from “emerging Asia,” García-Herrero says. That region will continue to need more EVs for its energy transition even after China’s domestic market becomes saturated.

This is why the benefits from China’s focus on EV supply are twofold: it both reduces China’s need for car imports from Western countries and creates another long-lasting export industry. Some countries, like Indonesia, are already courting Chinese investment to build EV factories there.

*In 2022, China exported 679,000 EVs, a 120% increase from the year before. **There’s little reason to doubt the numbers will only grow from here.***

From the export data that has just been released, it would appear that China has succeeded in becoming the most important player in a critical new industry in today’s global economy. That may be the reason why the WSJ did not even mention this accomplishment in the Chinese trade data. I am happy to be the one to break the news to all my readers.

But there is more.

Remember the chip wars, in which the Biden White House has tried to cripple the Chinese semiconductor industry by preventing American companies to export chips to China? And also prevent other countries to export chip making machines to China if they contain some American IP in their products? Well, it seems that China is rapidly overcoming that problem.

Here is a report from Bloomberg:

Huawei Touts Progress Replacing Chip Design Software Led by US

- The Chinese company is working with domestic partners
- Huawei cannot secure foreign technology due to US sanctions

By

Bloomberg News

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Huawei Technologies Co. has developed software tools capable of designing chips as advanced as 14 nanometers, advancing efforts to help Chinese companies sidestep US sanctions and replace American technology.

The telecom leader's inhouse teams worked with domestic partners to build tools required for creating chips considered a few generations behind cutting-edge, Rotating Chairman Eric Xu said. It plans to verify the products — known as electronic design automation or EDA software — this year, Xu added.

Huawei is among a coterie of Chinese hardware technology providers working furiously to replace sanctioned US components and software from AI chips to EDA tools — an arena dominated by American firms Cadence Design Systems Inc. and Synopsys Inc. Chinese chip software developer Empyrean Technology Co. rose as much as 7% in Shanghai on Monday after saying it has built solid commercial ties with major local chip designers and makers.

“We have basically realized the goal of building indigenous tools for designing chips as advanced as 14-nanometer,” Xu said during a company event on Feb. 28, according to a transcript of his speech circulated on social media and confirmed by a Huawei representative. Huawei has built 78 tools over the past three years to replace foreign products, he said.

Chinese President Xi Jinping has frequently highlighted the importance of building a self-sufficient supply chain, particularly on the semiconductor front, as the US has continued to tighten China's access to critical foreign technologies.

14nm is about four generations behind the latest commercially available products, but is already the second-best technology in China. Semiconductor Manufacturing International Corp. is capable of making 7nm chips.

Huawei gradually lost access to a large number of chips and the latest semiconductor design tools after the Trump administration blacklisted the company in 2019, citing national security concerns. Those sanctions helped torpedo Huawei's smartphone business, once the world's largest.

To build its own chip design tools, Huawei looked to hire scores of seasoned engineers to achieve breakthroughs in core technologies, Bloomberg News reported last year.

While Huawei can buy mature semiconductors from the likes of Qualcomm Inc., it is virtually impossible for the company to place orders with contract chip manufacturers like Taiwan Semiconductor Manufacturing Co. directly.

Existing US regulations ban chipmakers using any US technology to build new semiconductors for Huawei without a license. That means even leading Chinese foundries including SMIC and Hua Hong Semiconductor Ltd. cannot supply Huawei as they still use American production gear.

— With assistance by Debby Wu and Yuan Gao

So will the semiconductor business go the same way as the EV business in a few years? I would bet on it.

When that happens, China will dominate in several critical technology industries in the world — infrastructure (such as anything to do with concrete and civil engineering, including

railways), shipbuilding (China is now the largest shipbuilder in the world, with it also capturing the most lucrative part of that industry – the cruise ship segment), EVs as described above in this blog, and then semi-conductors that will drive all the machines in the above breakthroughs. China is no longer the copy cat manufacturer. It is making products which others are envious of. It is in other words, getting to the top of the totem pole, not just in terms of quantity of exports but also quality of exports.

This bodes well for the country's economic development and its leadership of BRICS.
We should look forward to it.

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Un-Influencer in a World full of Hubris