Global Equity Strategy

The USD1trillion cost of remaking supply chains: Significant but not prohibitive

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Supply chain tectonic shift accelerates along fault lines

In January, our survey of global analysts confirmed that the trend of globalization to localization was real and structural. Then, the intended and actual relocations were small compared to companies' installed base; tariffs were the top-of-mind driver. Six months later, COVID-19 has turned tectonic shifts to visible fault lines. Our latest survey found that companies in over 80% of global sectors experienced supply chain disruptions during the pandemic, prompting three-quarters to widen the scope of their re-shoring plans.

Multiple stakeholder views converge over shifting chains

While disruptions from the pandemic might have acted as a catalyst to accelerate re-shoring, we believe that the underlying structural reasons are grounded in an ongoing shift to "stakeholder capitalism" where corporations focus on shareholders' interests, as well as the broader community of consumers, employees and the state. While each of these stakeholders is examining the location of supply chains from very different perspectives, they are – interestingly enough – arriving at the same conclusion: namely, portions of supply chains should relocate, preferably within national borders and failing that, to countries that are deemed allies.

USD1trillion in re-shoring costs; 70bps ROCE reduction

The argument against re-shoring has always been made on the grounds of lost efficiency and ruinous costs. Our analysis, however, suggests that a USD1tn capex cycle, spread over a five year period, would support the shift of all foreign manufacturing in China that is not intended for consumption in China. This would be significant, but not prohibitive. At the end of the five year period, we estimate this would reduce aggregate ROCE by 70 bps (from 8.9% to 8.2%) and reduce FCF/sales by 110 bps (from 7.2% to 6.1%).

Automation & additional policy initiatives to help

We expect corporate management and policymakers to aggressively explore ways with which to offset the higher operating costs associated with re-shoring. We don't expect a silver bullet, but we were struck by the universal declaration (in our survey) of intent to automate in future locations. Policymakers are also expected to help through tax breaks, low cost loans and other subsidies with recent announcements to that effect from the US, Japan, the EU, India and Taiwan (amongst others).

Our analysts identify potential beneficiaries

Investors may like to position portfolios towards sectors that stand to benefit from this theme – construction engineering and machinery, factory automation and robotics, electrical and electronic equipment manufacturing, application software and other auxiliary services. Banks in North America, Europe and Asia South may also benefit from greater economic activity that would accompany these changes.

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Figure 1: Breaking Chains & its Impact

Tectonic shifts underway in global supply chains: 10 observations for the 20s

#1: 30-year structural shift in manufacturing

The combined share of manufacturing value-add for EU and the US has declined 25 percentage points over 30 years.

#2: COVID-19: accelerating the decoupling of supply chains

10 out of 12 global sectors faced supply chain disruptions during COVID-19, accelerating re-shoring plans.

#3: Supply chains scrutinized by multiple stakeholders

Companies in 83% of global sectors expect greater scrutiny around their supply chains post COVID-19 - from government/national security | corporate governance perspective | shareholders

#4: ESG likely to influence more Capex decisions in the future

ESG focus to prefer the US/Europe/Japan/Canada/Australia cluster; ESG-induced near-shoring to favor Brazil/India/Mexico/Poland/Vietnam.

#5: Emerging trend of reshoring

Companies in almost half of global sectors in N. America intend to reshore and/or plan to move to Asia South.

#6: Foreign investment flows show signs of decoupling?

China outbound investment flows with the US and Europe are under pressure.

#7: Supply chain rejig goes mainstream

67% of BofA Global Fund Manager Survey participants think localization or re-shoring of supply chains is the most dominant structural shift in the post COVID-19 world.

#8: The impact of a 5-year trillion dollar decoupling cycle

The impact on return on capital employed and free cash flow seems manageable.

#9: Manufacturing has multiplier effects on the economy

7 indirect jobs are created for every new job in durbale goods manufacturing.

#10: Identifying potential beneficiaries

Myriad of sectors to play the decoupling theme

Construction & Engg. / Machinery	*Healthcare*	*Industrial REITs*
Automation / Robotics	*Semiconductors*	*Railroads / Utilities*
Electrical & Electronic Equipment	*Consumer Durables*	*Banks*

Source: BofA Global Research, UN, Rhodium Group, The China Global Investment Tracker (CGIT) from the American Enterprise Institute, Heritage Foundation, FactSet.

Executive summary

Re-examining chains

At the start of this year, we published the findings of a global survey of our analysts in which we argued that supply chains for companies representing USD22tn market cap were on the move. More importantly, in the first signs of reversal in a multi-decade trend, we found companies in North America were planning to 're-shore' production.

Although most of these planned relocations were small compared to their installed base, the breadth of the shift was striking. At the time, we characterized these movements as "tectonic": slow moving, persistent with major changes to the business environment.

COVID-19 has accelerated our calculus. Stepping back, global supply chains were built to maximize returns by optimizing labor cost arbitrage and lower overheads. The pandemic has, however, exposed the fragility of far flung supply chains and a fresh survey of our analysts reveals that **companies in more than 80% of global sectors experienced supply chain disruptions during COVID-19.** As a direct follow-on to these disruptions, **three-quarters plan to enhance the scope of their pre-existing plans to re-shore production.**

While disruptions from the pandemic might have acted as a catalyst to accelerate re-shoring, we believe that the underlying structural reasons are grounded in an ongoing shift to 'stakeholder capitalism' where corporations focus on shareholders' interests, as well as the broader community of consumers, employees and the state. As a case in point, a survey of our analysts suggest that **companies in 75% of global sectors in North America and Asia Pacific and 67% in Europe are expecting to face additional scrutiny around their supply chains from governments, corporate boards and shareholders.**

While each of these stakeholders are examining the location of supply chains from very different perspectives, they are - interestingly enough - arriving at the same conclusion: namely, portions of supply chains should relocate, preferably within national borders and failing that, to countries that are deemed allies.

Starting with governments, last year our Asia and EM Equity strategy team wrote about how the world is becoming more government-heavy with heterodox policies reversing 40 years of free, global markets. We believe that government scrutiny of supply chains locations will be primarily driven by national security considerations and note that the US has recognized China as a strategic competitor – a view articulated in the National Defense Strategy documents. Similarly, the European Union in March 2019 concluded that the "the balance of challenges and opportunities presented by China has shifted". This geo-political assessment is resulting in a combination of legislation, incentives as well as moral suasion to relocate supply chains from China to alternative jurisdictions.

Finally, we turn to the views of corporate boards, shareholders and consumers which are increasingly influenced by ESG (Environment, Social and Governance) considerations. The influence of this perspective is reflected in the USD90tn in AUM being invested along the Principles for Responsible Investment (UNPRI).

Against that backdrop, our ESG team has examined the ranking of countries on a range of criteria and concluded that manufacturing in Europe and North America have under-appreciated advantages. These include higher use of non-fossil fuel power and proximity to consumers (implying lower carbon footprints) as well as lower risk locations from the perspective of climate change. Interestingly, our team concluded that ESG favors states like Brazil, Mexico, India, Poland and Vietnam over China. Overall, this leads to the same conclusion as the national security calculus. Namely, that there is a growing case for re-shoring from China to within US or European borders or to allies with shared values.

The USD1trillion cost of remaking supply chains

While political, social and corporate pressures to re-shore production are growing, they are also accompanied by trepidation about the costs that this shift would incur. This is grounded in concern about losing the unrivalled cost, scale and ecosystem advantages built up by China over the last few decades.

We have estimated those costs and conclude that a USD1tn capex cycle, spread over a five year period, would support the shift of all foreign manufacturing in China (c.40% of Chinese exports) that is not intended for consumption in China. In effect, foreign firms could continue to be 'in China, for China', but would have moved their manufacturing destined for global markets back within national borders, or to alternative jurisdictions.

While a USD1tn capex cycle would be significant, we don't believe that it is prohibitive. At the end of the five year period, we estimate this would **reduce aggregate ROCE by 70 bps (from 8.9% to 8.2%) and reduce FCF/sales by 110 bps (from 7.2% to 6.1%) for the global sectors ex-China**. Of course, not all industries are equal. Those with structurally higher returns - like health care and tech - will be able to absorb this incremental capex. Others, with more muted cash flows, may have to resort to external debt or equity financing.

We also caution that capex required to shift manufacturing should not be conflated with operating costs, which could be higher outside China and could act as drag on margins. We expect management and policymakers to aggressively explore ways with which to offset higher costs associated with re-shoring. We don't expect a silver bullet, but we were struck by the universal declaration (in our survey) of intent to automate in future locations. This was equally true of North American, as well as Asian companies and may be meant to mitigate the higher cost of operation in developed markets and offset lower productivity in emerging economies.

Policymakers are also expected to help through tax breaks, low cost loans and subsidies with recent announcements to that effect from the US, Japan, the EU, India and Taiwan.

Financial markets could - of course - assign lower multiples for lower ROCEs. Moreover, funding a major capex cycle could dampen the ability of corporates to support dividends and share buybacks. This is material at a time when an estimated 1-2ppt of annual US earnings growth in recent years is a consequence of buybacks. However, valuations may be helped by lowering exposure to geopolitical vagaries. Plus, historical parallels suggest that heightened competition between two great powers may lead to innovation and increased productivity, providing a much needed boost to nominal growth.

These tectonic shifts could have important implications for the manufacturing sector and auxiliary services. This is particularly true for the US, which has faced long-term headwinds in manufacturing. Any sustained recovery in capex and manufacturing would have multiplier effects on the broader economy. These include jobs (an estimated seven indirect jobs created for every new job in durable goods manufacturing), higher wages, greater R&D spend, more tax revenues and the creation of industrial clusters.

Investors, especially those with a long investment horizon, may like to position portfolios towards sectors that stand to benefit from this dynamic – construction engineering and machinery, factory automation and robotics, electrical and electronic equipment manufacturing, application software etc. to name a few. Moreover, banks in North America, Europe and Asia South are expected to benefit from greater economic activity.

Finally, it is worth noting that while other jurisdictions would benefit from re-shoring and its multiplier effects, over time, China could be presented with the challenge of offsetting the equivalent of c.7% of its GDP (currently derived from foreign company exports). We expect this to result in further efforts to stimulate domestic consumption and China's regional ecosystem/Belt-and-Road Initiative.

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