



SHIELD
by SOURCEREE



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February 2021



In February's SHIELD Newsletter, the Sourcing Team has flagged the best of what we've been reading in the CFIUS and Supply Chain Risk Management (SCRM) space this month. First, we look at a piece from John Lash focusing on CFIUS as a necessary national security tool that must be paired with promoting an open economy for US businesses. Sourcing's first public report follows and is a comprehensive overview of the People's Republic of China Belt & Road initiative, summarizing the importance of the effort as well as its risk to the United States. We finish up with the US Chamber of Commerce report on China Decoupling, where we excerpt their analysis of the impact to the global semiconductor industry and an International Energy Agency report on Electric Vehicles (EVs) in 2020 and the potential for EV technology to bolster the electricity grid.

--Adam Murphy, Sourcing President



The Next Generation Foreign Policy Paradigm: Economic Security as National Security

Darkhorse Global

Author: John Lash, PhD

This piece on the role and limitations of CFIUS as a national security tool sketches a roadmap for the future, one which leverages the full force of U.S. businesses to remain robust and innovative in a globally competitive and risk-laden landscape.

Select excerpts from the piece:

The Biden administration will contend with many pressing issues during its first 100 days, with none more nuanced than the intense geopolitical and economic competition between the United States and China. These circumstances are more than economic competition as they culminate on geopolitical and national security spectrums with a key U.S. interagency body – the Committee on Foreign Investment in the United States (CFIUS) – at the forefront of this effort.

The approach will require the design comprehensive models which address foundational truths of globalization, including both the potential benefits and negative consequences of free and open trade on national security. This includes evaluating the risks and the benefits of activity in the capital markets, such as access and control over key infrastructure assets that are funded or acquired through the Belt and Road Initiative (BRI) or through the acquisition of intellectual property for next generation technologies indigenous only to the U.S.

CFIUS: Sword or Shield

The increasingly resourced and specialized group that is tasked with examining these issues at this convergence of economics, trade policy, and national security is the Committee on Foreign Investment in the United States (CFIUS).

As sharp contrasts are drawn between the policy positions of the administrations, the focus on regulatory scrutiny of foreign direct investment in US critical infrastructure is an area of policy continuity which will continue to lead the great power competition. Through highly publicized cases a light has been shined on CFIUS as it emerges as perhaps the most critical line of defense for the US in the battlefield of global competition. CFIUS authorities can be deployed in expansive offensive and defensive situations, from investments in dual-use technologies to mobile applications to renewable energy, with an ability to review and take potential action not only pending deals, but also deals which have closed which are under its broad jurisdiction.

Competition as National Security Strategy

The connection between economics and national security is rooted in the fundamental principle of competition, which creates resilience, security, and innovation across the global markets. These global relationships have created dependencies between nations for research and development, along critical supply chains, and in mutually beneficial trading arrangements. The consequence of this interdependence is that certain countries, including the US and China, have moved towards the fourth industrial revolution, to a technology and knowledge economy. The future is represented by a digitalization that has created a global economy where traditional boundaries and international order have evolved to an interdependent international system.

Balancing Security with Open Economy

The US strategic approach to national security investment reviews under CFIUS jurisdiction will be integral to both economic policy and national security policy formulation. These policies will be impacted by how, when, and in what context the US government, along with other trade policy tools, are deployed and enforced. While the review of foreign direct investment under CFIUS is focused exclusively on the national security risk posed by the transaction, the potential positive or negative externalities that arise from these measures are intrinsically linked to creating, inhibiting, or protecting American businesses. These businesses are drivers in the development of innovative technologies which underpin domestic economic competitiveness; however, these technologies, often with civil-military fusion capabilities, are also key for military superiority.

As the global economic power dynamics continue to shift, China and the United States both have a vested interest in a stable world order; however, each country does maintain their own national interest in preserving and expanding their power-role both economically and politically. In addressing the evolution from conflict to competition between the US and China one of the critical inflection points will be whether the administration will concede that developing consistent, open, and rules-based standards in interactions can create positive sum outcomes for both countries and the global economy.

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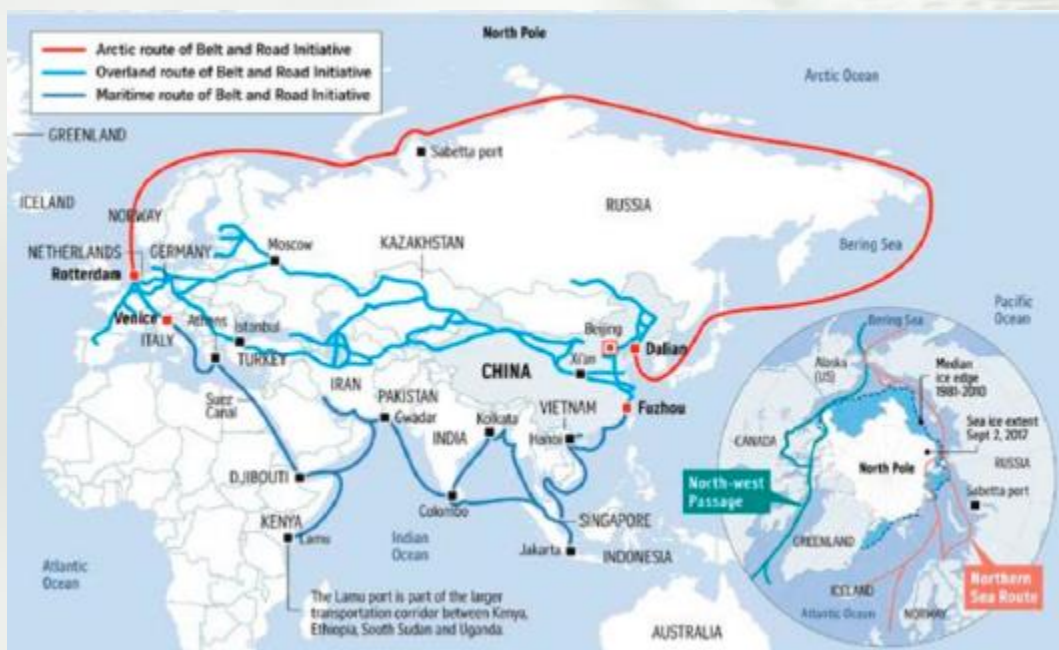
Sourcereer, SHIELDSquad

Author: Christian Faranda

In Sourcereer's first publicly available commercial report, we lay out a comprehensive research piece on China's Belt & Road Initiative (BRI), including objectives, corridors, partner countries, leadership and more. This excerpt lays out why this information is so critical.

Select excerpts from the piece:

Why should you care about the BRI?



Source: Duchâtlet & Sheldon-Duplaix, 2018

The Belt and Road initiative is an ever present danger to the developing nations of the world on a micro scale and the established democratic order of the United States and our allies on a macro scale. The greater business community, the military, as well as average citizens need to be aware of this initiative and its effect on their lives. As the initiative grows there is a daunting reality that China will use it to perpetuate its ideas of social control, censorship, oppression, and genocide around the globe weakening the value of democracy and freedom.

Financial Intentions

- China has signed cooperative documents with 126 countries and 29 international organizations.
- The goods trade volume between China and countries involved in the initiative surpassed USD 6 trillion from 2013 to 2018, with an average annual growth rate of 4 percent.
- Chinese companies' direct investment in countries involved in the initiative surpassed USD 90 trillion from 2013 to 2018, with an average annual growth rate of 5.2 percent.
- China has signed currency swap agreements with more than 20 countries involved in the initiative and established Renminbi (RMB) clearing arrangements with seven countries.

- Silk Road e-commerce is becoming a new channel for economic and trade cooperation between countries.
- China has established the bilateral e-commerce cooperation mechanism with 17 countries.
- The total value of new foreign contracts signed with countries involved in the initiative surpassed USD 600 billion, with an average annual growth rate of 11.9 percent.
- By the end of 2018, China Export & Credit Insurance Corp realized total insurance amount of more than USD 600 billion in countries involved in the initiative.
- So far, the overseas economic and trade cooperation zones that Chinese enterprises have built in countries involved in the initiative have created about 300,000 local jobs, with total investment of more than USD 30 billion.

Financing and Funding for the BRI

With a program of this size, a massive capital investment is necessary to begin, maintain, and grow the effort. Using their massive state-owned banking financial institutions, private banking institutions, and foreign entities that promote economic growth China is pumping trillions into the BRI.

With the total trade volume between China and participating countries surpassing USD 6 trillion and a need for an additional USD 26 trillion in investments by 2030 to keep the economy growing, significant funding is crucial to ensure the continued success of the initiative.

As of May 17, 2019 the BRI includes 126 countries and 56 international organizations across Asia, the Middle East, Europe, Africa and South America have signed cooperation agreements with China to participate. So, how is the BRI being financed? The funding of the BRI can be classified into four distinct channels:

- Policy Banks
- State-owned Banks
- Sovereign Wealth Funds
- International Financing Institutions

The Effect on America

The Belt and Road Initiative has been under much speculation and criticism from enemies and allies alike for the last 8 years, but one of the most burning questions is how does BRI affect the United States and its influence around Asia and around the world. A report by Britain's Chartered Institute of Building, looked at how infrastructure gains from the BRI could boost productivity across the world. After factoring in trade frictions, the study found that the BRI could increase US GDP by 1.4 percent by 2040. Despite assuming zero direct involvement of the US in the BRI, "the US gains from the boost to world GDP are such that in absolute terms." In fact, the researchers argued that "the US is the second largest beneficiary. Our calculations suggest that the BRI will leave US GDP in 2040 USD 401 billion higher, a boost of 1.4 percent." Others disagree: Over time the BRI could threaten the very foundations of Washington's post-WWII hegemony.

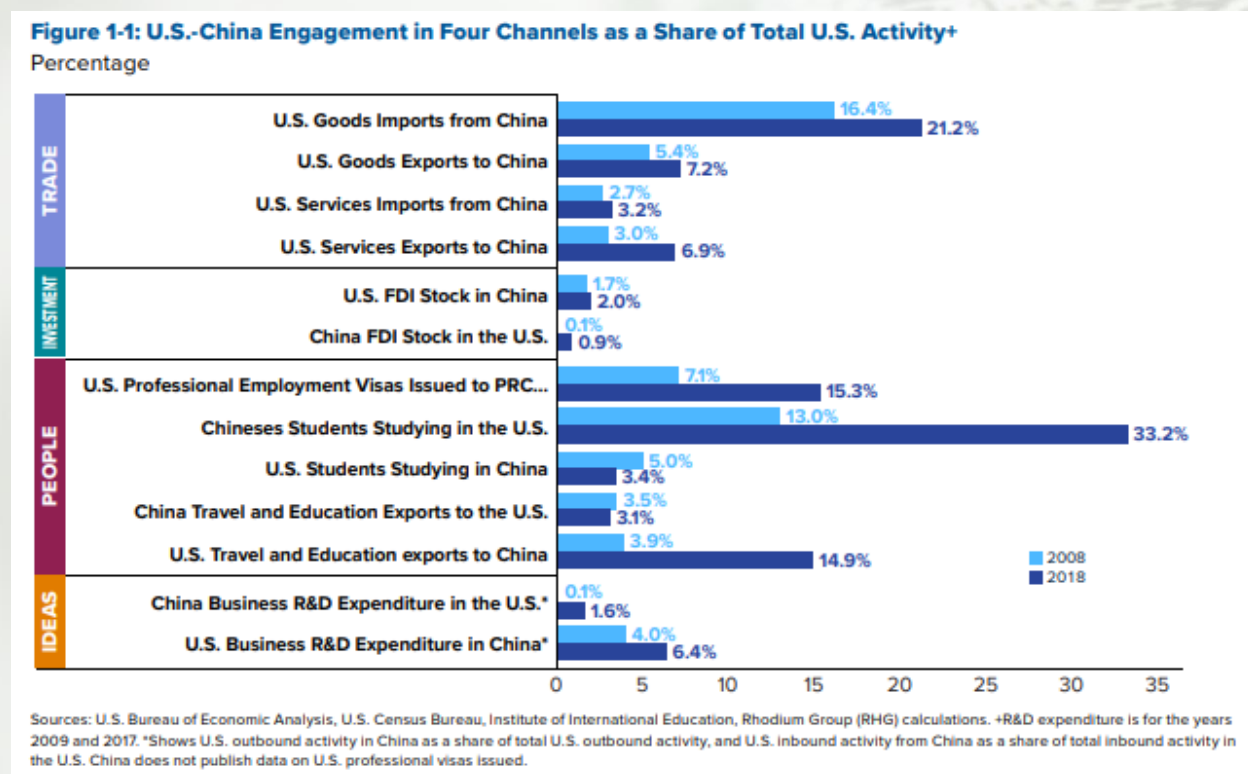
First, its naval dimension works in synergy with overland projects that span regions of critical geostrategic value, taking advantage of China's central position along the Eurasian rimland. Second, Beijing seeks to offset the United States' military primacy. Its buildup in maritime East Asia and the South China sea is worthy of attention but it is also designed in response to the US naval presence and to the alliances that American leaders have nurtured along China's southern flank since the early years of the Cold War. Third, to advance its interests globally. Because of its narrow focus on the military balance of power in the Asia-Pacific, the United States has not yet developed the tools necessary to address that challenge.

Understanding U.S.-China Decoupling: Macro Trends and Industry Impacts

U.S. Chamber of Commerce, China Center

The U.S. Chamber of Commerce broke down its report on China decoupling into four critical industries: aviation, semiconductors, chemicals, and medical devices. Each section provides a comprehensive overview of the cost, impact, and challenges should partial or whole decoupling of the U.S. in China occur in these strategic industries. The following excerpts focus on the section on semiconductors.

Select excerpts from the piece:



The increasing complexity and costs involved in manufacturing leading-edge semiconductors present a steep barrier to entry, leading to a consolidated industry dominated by a few players. As it stands, the U.S. is the global leader in terms of sales, profits, and innovation. U.S. firms maintain the biggest market share in every major region in the world. At the same time, U.S. firms do not lead in every segment. In areas such as contract semiconductor manufacturing and assembly and testing, U.S. firms rely almost exclusively on Asian-based supply chains.

In addition to official measures supporting domestic companies, Beijing also employs policies that put foreign firms at a competitive disadvantage and makes market access contingent on conditions like technology transfer.

Discriminatory policies and practices include the following:

- Joint venture and forced technology transfer: Providing know-how and technology to a Chinese partner is a basic requirement in many industry segments. Foreign ICT firms are frequently required to transfer key technologies and development processes as a price of entry to the China market.

- Domestic procurement: Some government or state-owned enterprise procurement may exclude products that do not meet indigenous innovation criteria and favor imported products whose suppliers are willing to transfer technology. In 2019, an order from the CCP's Central Office ordered all government offices and public institutions to remove foreign computer equipment and software within three years.
- State-sponsored cyber-espionage: China's security ministries engage in cyber-hacking to access U.S. ICT trade secrets and IP. In a notable example, Fujian Jinhua Integrated Circuit Co., a Chinese state-backed startup, was accused of stealing U.S. semiconductor IP; it was subsequently restricted from doing business with U.S. companies.
- Standards and product certification: Developing and imposing national standards in strategic industries that often deliberately differ from international standards in order to impede market access for foreign technology and to favor Chinese technology.¹⁴⁵ In July 2020, China's National Information Security Standardization Technical Committee (TC260) issued draft supply chain standards for a wide range of IT products, which could significantly restrict U.S. suppliers.

In sum, Beijing has employed policies and nonmarket practices that help Chinese firms catch up, become self sufficient, and subsidize technological development and expansion. These government-led approaches promote building out manufacturing capabilities and acquiring foreign technology. China's illicit practices in this industry—including a history of forced-technology transfer, lack of IP protection, and conditioning market access on technology sharing—underpin U.S. concerns about competitiveness and national security risks in the semiconductor industry.

Global Electric Vehicle (EV) Outlook 2020: Entering the decade of electric drive?

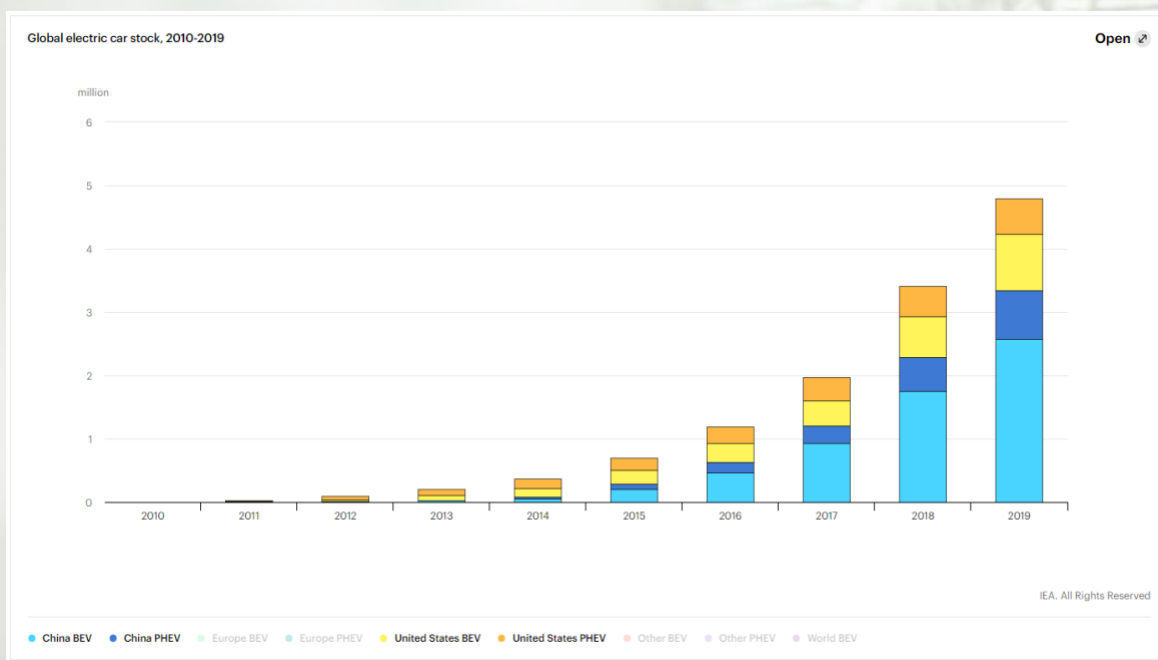
International Energy Agency

The February 2021 snowstorm left millions in Texas without power for hours or days and will potentially contribute to an unprecedented disruption in the food supply chain. The International Energy Agency (IEA) EV technology report, among other things, provides data on the potential of global V2G capabilities, which could serve as backup to the U.S. power grid in circumstances that include accidents, acts of war, and destructive weather events like the current snowstorm.

Further information provided in the report includes global electrical car stock counts over the last decade and variables that would impact the supply of batteries and chargers for EVs, like the technology regarding their manufacture and supply of most common materials: nickel cobalt aluminum oxide (NCA), nickel manganese cobalt oxide (NMC) and lithium iron phosphate (LFP) cathodes for lithium-ion (Li-ion) batteries.

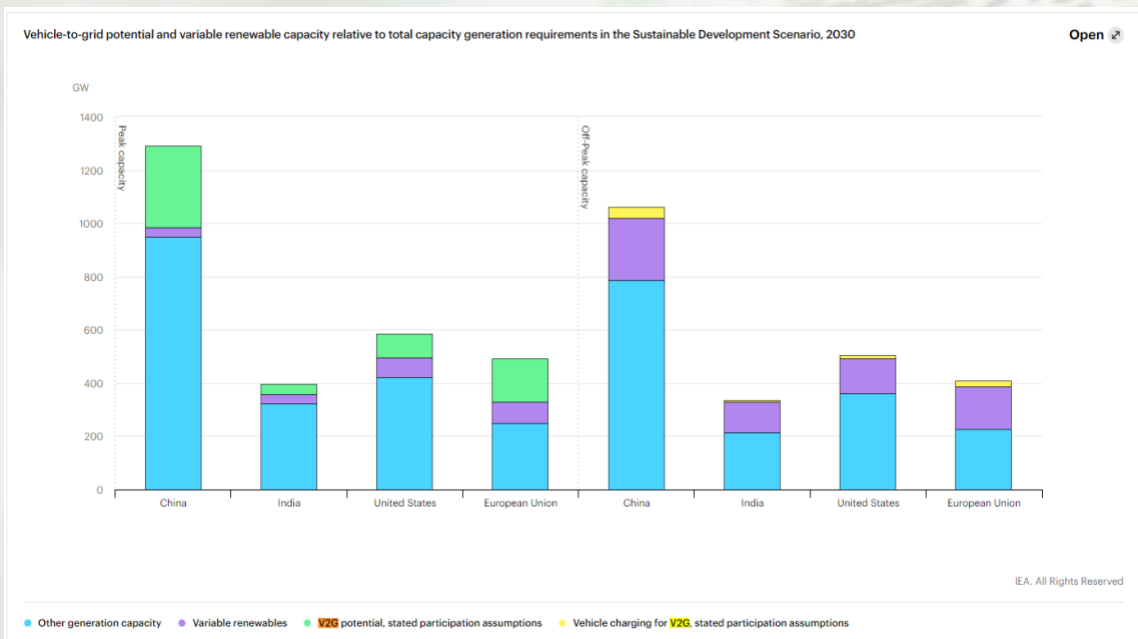
Select excerpts from the piece:

The piece analyses how off-peak electricity demand charging, dynamic controlled charging (V1G) and vehicle-to-grid (V2G) could mitigate the impact of EVs on peak demand, facilitate the integration of variable renewables and reduce electricity generation capacity needs.



Not only are there means to alleviate the potentially negative impact of electric vehicle charging on power systems, but the 16 000 GWh of energy that can be stored in electric vehicle batteries globally in the Sustainable Development Scenario in 2030 could actively provide energy to the grid at suitable times via vehicle-to-grid solutions (V2G). The V2G potential depends on availability of vehicles or vehicle fleets to participate in such services at suitable times, consumer acceptance, and the ability for participants to generate revenues, as well as other technical constraints related to battery discharge rates or impacts on battery lifetime. All being accounted for, an estimated 5% of the total electric vehicle battery capacity could be made available for vehicle-to-grid applications during peak times. This could provide about 600

GW of flexible capacity globally by 2030 across China, the United States, the European Union and India, contributing to offset lower renewable electricity generation during peaks as well as the increase of capacity needs to meet peak demand.





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Managing risk in supply chains is of great concern to those involved in the acquisition, procurement and maintenance of platforms, devices and systems.

Sourceree's SHIELD program is a comprehensive supply chain risk management (SCRM) solution designed to help answer questions about supply chain disruptions and risks.

SHIELDSquad is analytical support
SHIELDIntel is business intelligence reports on critical suppliers
SHIELDVision is a software platform for on-demand supply chain risk assessments and financial intelligence data

