

New China Perspectives



Welcome to the weekly issue of Morgan Creek's *New China Perspectives*. It is comprised of research from Morgan Creek's China-based investment team together with curated articles of interest. In addition to timely political and economic news covering greater China, Morgan Creek's China team seeks to provide in-depth perspectives on investing in the technology, consumer and healthcare sectors in the region. Our research leverages the "on the ground"

insights of our team together with Morgan Creek's decades-long experience in covering the region. Our team are focused, thematic investors primarily covering the technology, consumer, and healthcare sectors and investing in private companies and early-stage managers with deep local expertise. To learn more about our team and investment offerings, please email chinateam@morgancreekap.com.

Best Regards,

Handwritten signature of Mark W. Yusko

Mark W. Yusko
CEO & CIO

NOTES FROM THE BUND¹

We feel that development of digital transnational corporations (TNCs) in China such as Alibaba, JD, Pinduoduo, and Tencent is due to, and has further contributed to, the rise of new platform technologies including mobile, 4G, cloud, big data, and AI. We believe that accelerated digitization of China's consumer sector has propelled its domestic champions among the very top (technologically) globally. However, the same is not yet true of China's many traditional B2B sectors, where digital penetration continues to be very low, with many industries highly fragmented and inefficient. Having largely consolidated China's consumers and streamlined distribution channels, consumer tech giants are now turning their attention upstream – to modernize their supply chains and logistics.

We see opportunities in this next wave of digitalization and the next newsletters will explore:

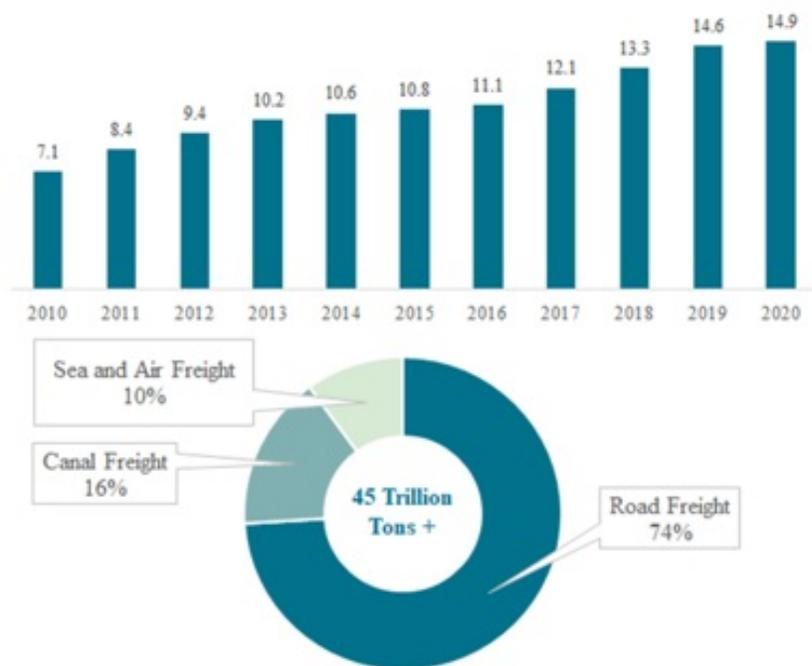
- existing pain points in the logistics industry; and
- how new technologies are being applied to seek to solve these problems.

We will flesh out the latter by highlighting two companies which use different approaches to target different segments of the logistics market.

Chinese trucking industry

China has a large and rapidly growing logistic market. As most goods are transported domestically by road, China is also the largest road freight market globally. The breakdown of logistic costs across different modes of transportation in China is given below.

2010-20 Total Logistics Cost in China (CNY trillion)



Source(s): China Business Industry Research Institute, Qianzhan, China Merchants Securities, China Automobile Dealers Association, Deloitte Research, Company Presentation
 Note(s): 1. Data as of 12/31/2020 USD Billion

Figure 1: Breakdown of logistic costs across different modes of transportation in China

As can be seen, road freight is responsible for transporting 74% of gross tonnage within China. However, the industry is highly inefficient when compared to its global peers. As a percentage of GDP, logistics costs are 15% in China, as compared to the 12% global average, let alone the 8% average of more developed markets such as the United States.

Logistics Cost vs. GDP (%)

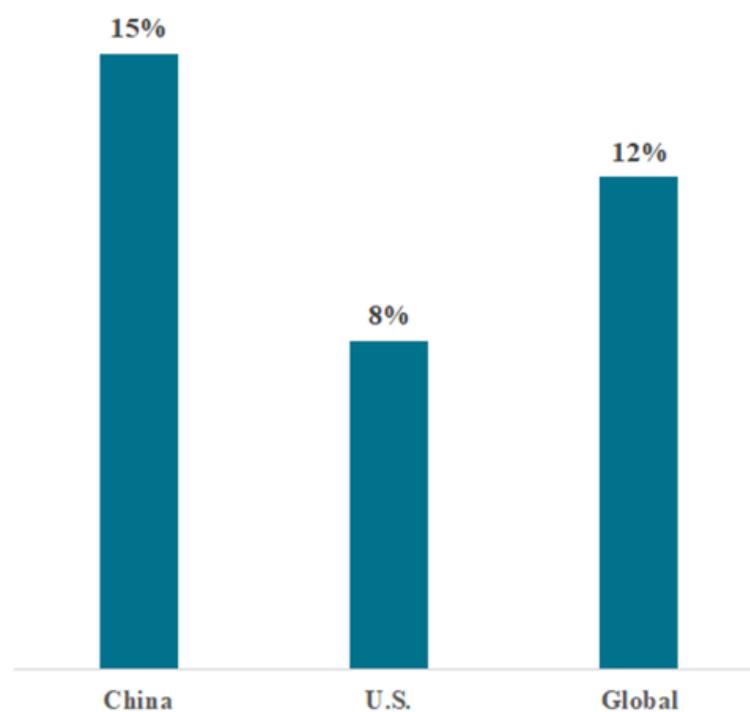


Figure 2: Logistic costs as a percentage of GDP

Total logistics cost in China in 2020 was CNY 14.9 trillion. If the Chinese market can become as efficient as the US, it will be able to save approximately CNY 7 trillion per year. Thus, there is a strong economic incentive to improve efficiency within the logistic industry.

Furthermore, inefficient logistics have an environmental cost also. China is among the largest emitter of greenhouse gasses, responsible for 27% of the world's greenhouse gasses in 2019². Transportation is responsible for 8% of Chinese CO₂ emissions³. In China in 2020, both "trucks and buses contributed 74 percent of nitrogen oxides emissions, 52 percent of particulate matter emissions, and more than 50 percent of greenhouse gas emissions."⁴ Thus, improving efficiency will also increase sustainability. Further, projected CO₂ emissions from freight are expected to increase from 400 million tons in 2010 to 1.5 billion tons in 2030 as illustrated below.

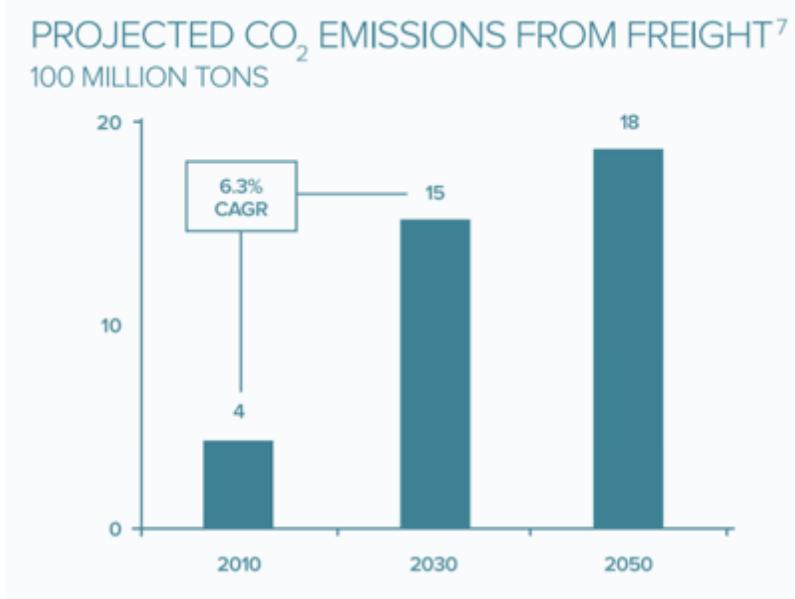


Figure 3: Projected CO₂ emissions from freight in China over time⁵

China's trucking industry is also highly fragmented, leading to low utilization of existing fleets, meaning many trucks run empty, incurring both economic and environmental costs. The charts below show China's much lower heavy-duty truck (HDT) utilization as compared to developed nations such as the United States and Germany. Furthermore, while in both US and Germany HDTs are running empty less than 25% of time, in China, they run empty more than 35% of the time.

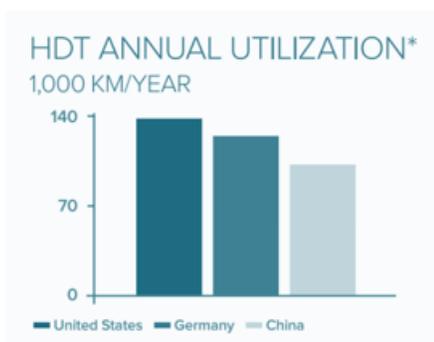


Figure 4: Heavy-duty Truck annual utilization



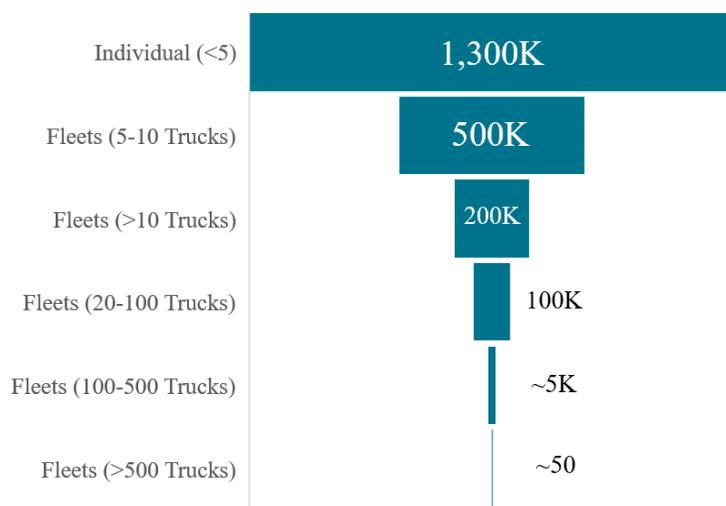
Figure 5: Heavy-duty Truck empty running (%)

In our view, the reasons for this low efficiency are systemic problems within the Chinese trucking industry. Firstly, most trucking enterprises are mom and pops (ie. subscale). As a point of comparison, China has more than twice as many trucking companies as America and the largest US trucking company has approximately 9% market share⁶ as compared to the largest Chinese company which has less than 1% (figure 6).



Figure 6: Comparison of number of trucking firms in USA vs. China

This is illustrated by the fact that Chinese truckers have a long tail whereby the vast majority of truckers are owner-operators, or mom and pop drivers, such that <0.003% of companies have fleets of 500 trucks or more. (figure 7).



Source(s): CNBC, NIO, Coyote, Roland Berger, Company Presentation
 Note(s): 1. Data as of 12/31/2020. USD Billion

Since most companies are small, they have very little capital to invest for the future, instead focusing on upfront cost minimization.

Secondly, there is a vicious cycle of poor working conditions in the industry with poorly skilled workers with limited experience. Due to difficulties in enforcement, regulations are rarely followed and there is an incentive to skirt the law to increase profitability (ie. overloading trucks, or driving with insufficient resting time). These poor working conditions drives high trucker turnover (over 80% annually), which meaning there is a severe shortage of experienced drivers. Both these reasons contribute to high accident rates. Reported crash fatalities in China are 9.4/10k vehicle registration as compared to 1.3/10k in the US. Even Brazil, a peer developing country, has a lower crash fatality rate of 6.6/10k.

Thirdly, markets are opaque with low information sharing and levels of trust. Xiong (2010) calls the trucking market chaotic⁷ because it is made up of millions of individuals with one to very few trucks, dealing with businesses that are also small, and all operating without standard operating procedures and transparent pricing, leading to uneven and unpredictable changes in bargaining power over time. Activities including falsification of records occur frequently enough so that there is no mutual trust between business partners.

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CHINA NEWS SPOTLIGHT

US-China relations: ‘vague’ investment screening plan leaves questions on scope and execution: Tension with China is propelling the creation of a new outbound investment screening regime in the United States, but significant uncertainty remains about how it will be implemented, analysts say. [Read more.](#)

China new bank loans jump, first quarter lending hits record US\$1.3 trillion, ‘further acceleration’ expected: New bank lending in China rose more than expected in March, while broad credit growth accelerated, from the previous month as the central bank kept policy accommodative to support the slowing economy. [Read more.](#)

Chinese commerce ministry urges US to remove tariffs, as bilateral trade supports 860,000 American job: A USCBC report on US exports to China reaching a new record, which helps support 860,000 American jobs, is yet another proof of the mutually beneficial nature of China-US economic and trade ties, China's Ministry of Commerce said on Thursday, urging the US government to do away with the tariffs and stop crackdowns on Chinese companies. [Read more.](#)

China approves first batch of video games in 9 months: China granted new video game licenses on Monday for the first time in nine months, but none of the 45 approved titles came from the big domestic leaders NetEase and Tencent Holdings. [Read more.](#)

Zhihu Inc. Announces Pricing of Global Offering: Zhihu Inc. (NYSE: ZH) ("Zhihu" or the "Company"), the operator of Zhihu, a leading online content community in China, today announced the pricing of the global offering (the "Global Offering") of 26,000,000 Class A ordinary shares of the Company (the "Sale Shares") by certain selling shareholders, which comprises an international offering (the "International Offering") and a Hong Kong public offering (the "Hong Kong Public Offering"). [Read more.](#)

CMG901 for the treatment of gastric cancer and gastroesophageal junction adenocarcinoma was granted the Orphan-drug Designation by the Food and Drug Administration of the United States: Keymed Biosciences (2162.HK) announced that its new drug candidate CMG901 (the "Claudin 18.2 antibody drug conjugates") for the treatment of gastric cancer and gastroesophageal junction adenocarcinoma has been granted the Orphan-drug Designation by the Food and Drug Administration of the United States (the "FDA") recently. [Read more.](#)

Bayer receives approval for precision oncology treatment Vitrakvi™ in China: Bayer today announced that the Center of Drug Evaluation (CDE) of China's National Medical Products Administration (NMPA) approved larotrectinib, under the brand name Vitrakvi™, for the treatment of adult and pediatric patients with advanced solid tumors that harbor a Neurotrophic Tyrosine Receptor Kinase (NTRK) gene fusion. [Read more.](#)

BeiGene Gets China Approval for Tislelizumab Cancer Treatment: BeiGene Ltd. said Friday that the China National Medical Products Administration has granted approval to its anti-PD-1 antibody, tislelizumab, as a treatment for patients with locally advanced or metastatic esophageal squamous cell carcinoma who have disease progression or are intolerant to first-line standard chemotherapy. [Read more.](#)

¹The Bund is a historic waterfront area in central Shanghai, where Morgan Creek's office is located. From the 1860s to the 1930s, it was the rich and powerful center of the foreign establishment in Shanghai, operating as a legally protected treaty port. The picture above is part of the historical waterfront.

²<https://www.bbc.com/news/world-asia-57018837>

³<https://chineseclimatepolicy.energypolicy.columbia.edu/en/emissions-sector-and-source>

⁴<https://www.chinadaily.com.cn/a/202203/17/WS62328282a310fd2b29e51630.html#:~:text=Trucks%20and%20buses%20contributed%2074,Ministry%20of%20Ecology%20and%20Environment.>

⁵https://rmi.org/wp-content/uploads/2017/03/China_Trucking_Charrette_Report_2016.pdf

⁶C H Robinson Worldwide Inc Comparisons to its Competitors and Market Share - CSIMarket

⁷Jun, Xiong. "Trucking in China's Logistics Sector." *LERA For Libraries*(2010).

Important Disclosures

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