COMMERCIAL VEHICLES || FORECAST

CHINA COMMERCIAL VEHICLE OUTLOOK

REPORT VERSION PUBLISHED NOVEMBER 2019

2019 LAWRENCE R. KLEIN BLUE CHIP AWARD WINNER

Contributor to Blue Chip Economic Indicators and WSJ Economic Forecast Panel

ACT China Commercial Vehicle OUTLOOK is published quarterly by Americas Commercial Transportation Research Company (ACT). 4440 Middle Road, Columbus, IN 47203. Phone: 812.379.2085, Fax: 812.378.5997, email: trucks@actresearch.net.

SAMPLE REPORT OVERVIEW:

Thank you for your interest in ACT Research and our work. The objective of this sample report is to share an understanding of the market, economy, and insight to analysis at the time of publication. We share this report from 2017 for market context, assessment of our forecast, its accuracy and its methods.

China Commercial Vehicle OUTLOOK

This is a quarterly report that reviews the macroeconomics of the Chinese economy, as well as deep dive into the transportation environment and industrial policies impact the Chinese commercial vehicle industry.

With this report, you will receive:

- Macroeconomic analysis – current data and forecasts
- Transport environment & industrial policies
- Analysis of current MD and HD truck markets
- Vehicle forecasts (by quarter for the current year and five-year annual forecast)
- Competitive landscape
- Published with the China State Information Center (SIC)

Additionally, a monthly flash is available the last week of each month (except months when full report is published) and includes wholesale data by:

- OEM and type
- market share %
- fuel and type
- tonnage or length
- monthly bulk commodity information
- a usage explanation sheet
- 40+ PowerPoint graphs

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REPORT VIDEO

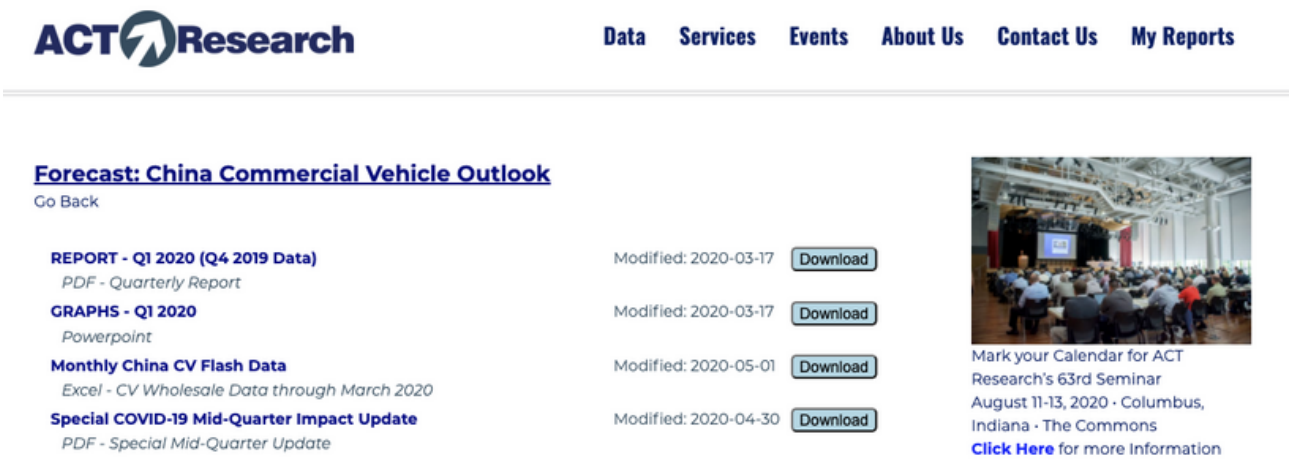
Report Dashboard Overview:

With your subscription to the *China Commercial Vehicle OUTLOOK*, you will gain access to our report dashboard. Below is a listing, as well as a screenshot, of this dashboard and the support material you will receive with your report.

1. PDF of Current Quarterly Report (Previous Quarter's Data)

2. Monthly China CV Flash Data:
   a. Wholesales by OEM & Type
   b. Wholesale Market Share %
   c. Bulk Commodities
   d. Usage Explanations
   e. Wholesale by Fuel and Type
   f. Wholesale by Usage
   g. Wholesale by Tonnage or Length
   h. Policy updates

3. Graph pack complete with 100+ graphs covering:
   a. Economics
   b. Transport Environment & Investment
   c. Market Performance & Short-Term Forecasts
   d. Long-Term Forecasts
   e. Long-Term Factors
   f. Market Competition
   g. Market Share Trends



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HIGHLIGHTS

Click paragraphs to zoom to more details

MACROECONOMIC ANALYSIS

- GDP grew 6.2% y/y in Q2'19, down 0.2 percentage points from the previous quarter.
- Fixed asset investment grew 5.8% ytd in Q2, down from Q1.
- Consumption recorded an increase in June, Q2 consumption grew 8.4% ytd from like 2018, up only 0.1 percentage point from Q1.
- Both imports and exports had poor performances, which contributed to a receding trade surplus.
- CPI in Q2 grew steadily, with y/y increases of 2.5% in April, and 2.7% in May and June.
- Production inflation fell 0.3% in June. This was from the previous month's 0.6% increase.
- It is estimated that GDP growth in Q3'19 and Q4'19 will decline to 6.2% and 6.1%, respectively.
- Real estate and manufacturing investment is expected to face continued downward pressure even as infrastructure investment moves up gradually.
- Consumption is expected to stabilize at lower levels than we've become accustomed to seeing.

TRANSPORT ENVIRONMENT & INDUSTRIAL POLICIES

- Spotlight changes and trends in policies affecting sales and market structure of heavy duty commercial vehicles mainly include phase-out of NSIII vehicles, upgrading to NSVI emission standards, transport from road to railway and water, and 2019 NEV subsidy policy.
- Demand for bulk commodity transport related to the energy market will be at a slower but steady pace.
- In Q2, road freight rates rose slightly over Q1'19, but remained at a low level, mainly because transport capacity grew faster than freight demand.
- With an increasing demand for passenger vehicles, more residents use private vehicles to travel, which to some extent will reduce the long-term potential demand for buses.

MEDIUM & HEAVY TRUCK MARKET PERFORMANCE

- Domestic demand for heavy trucks fell nearly 29% y/y, while the tractor segment increased almost 30%, and demand for medium trucks was -41%.
- Because of subsidy changes, domestic demand for large and medium buses dropped nearly 23%, following a prebuy-impacted first quarter.
- Domestic sales of HDTs (excluding tractors) totaled 143.7k, down nearly 29% y/y.
- Domestic tractor demand totaled 158.3k units, growing nearly 30% y/y.
- The sale of MDTs contracted almost 41% y/y, with 28.1k units sold domestically.
- Q2'19 domestic sales of large and medium buses totaled 24.1k units, a 22.6% y/y drop.

FORECAST

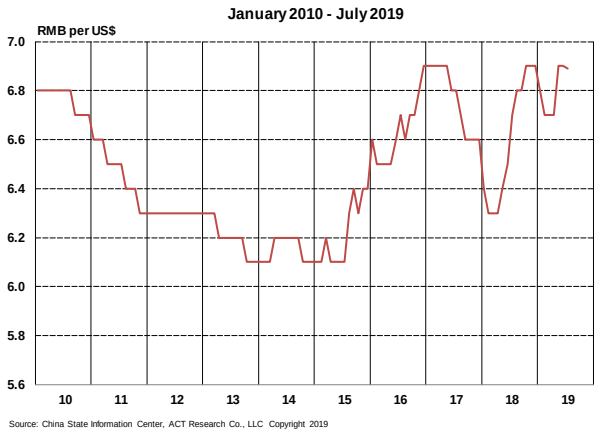
- Market stimulus resulting from overload control has come to an end. As a result, y/y comparisons going forward will be negative.
- Dealers are reporting that capacity in the market is approaching saturation, and overcapacity will negatively impact freight rates.
- In the next five years, demand for MHDTs will reach about 1,020,000 units on average, with a steadily declining trend.
- In the next five years, medium and large bus demand is expected to reach 150,000 units.

MARKET COMPETITION

- In Q2'19, the top three heavy truck OEMs were again Dongfeng, CNHTC and FAW, with Shaanxi Auto maintaining fourth place.
- Despite losing market share in Q2'19, FAW was able to maintain first chair in the HD tractor segment. currently controlling 33% of this market.
- BAIC Group continued to hold the top medium duty segment position, with 21% market share. Dayun Auto was able to move from third to second place in Q2, pushing Dongfeng into the third seat.
- Yutong Group and King Long Motor were able to maintain their respective first and second-place ranking in the large and medium bus segment, but BAIC Group dropped from third to eighth position.

CHINA MARKET CHANGES: The China commercial vehicle market continues to be the largest in the world. China's market has been undergoing structural changes for more than a decade, impacting the total market volume and the types of vehicles being purchased. These changes will continue to influence the forecast for the foreseeable future. Taken in total, the market will shrink from its 2018 peak of 1.48 million units to 1.1 million in 2023, a decline of 26%. Heavy duty truck demand will decline 40% over that time, while tractor volume will drop 13%. As a result, total heavy-duty demand will slide 29%. Medium duty trucks will fall by 21% from its 2018 level. The better performance of the tractor segment will occur particularly through the impact of size and weight enforcement, along with changes in domestic logistics. As urban transportation is addressed from the NEV (new energy vehicle) perspective, medium/heavy bus volume will be down only 7% from 2018 to 2023, but there is a dramatic shift from the on-highway to transit end market. Bus volume will be impacted by modal transportation shifts, as a more affluent population will shift its transport preferences to air, rail, and personal vehicle. Transit bus volume will benefit from increasing urbanization.

RMB Real Effective Exchange Rate



The major demand drivers impacting the Chinese Commercial Vehicle Market include:

1. The Chinese macro economy (+)
   a. Size and growth
   b. Shift from export to domestic consumption
2. Enforcement of size and weight laws (+)
3. Electronic logistics systems (-)
4. Build of the major highway system (-)
5. Shift from brick and mortar stores to e-commerce (+)
6. Higher quality vehicles and components (-)
   a. Longer product life
   b. Safer vehicles
7. Construction of high-speed rail (-)
8. Shift to NEVs for city transit buses (+)

ACT Research and China's State Information Center (SIC) will continue to evaluate these and other changes and their impact on the market and forecast.

CURRENT ECONOMIC OVERVIEW

- GDP grew 6.2% y/y in Q2'19, down 0.2 percentage points from the previous quarter.
- The cumulative growth rate of consumption registered a significant increase in June, but the reasons for the increase are unsustainable.
- Investment slowed on a quarter-over-quarter basis, while exports tumbled in Q2, entering negative growth territory. Imports continued the slide that started in Q1.
- In Q2, above-scale industrial value added grew 6.0% ytd, down 5% from Q1. It fell sharply in April, before showing a rebound in June, hitting 6.3% which was largely driven by the mining industry.

Investment saw y/y cumulative declines: Fixed asset investment grew 5.8% ytd in Q2, down from Q1. Real estate investment fell slightly with completed real estate development investment growing at a rate of 10.9% compared to 11.8% in Q1. Infrastructure investment was relatively flat, with a y/y cumulative growth rate of 2.95% in Q2 flat with Q1, but its marginal growth rate increased significantly in June; manufacturing investment remained muted.

Manufacturing investment grew 3.0% ytd in Q2, down 1.6% over Q1. By month, it grew at a faster pace in June to 3.0% from 2.5% in April. The slight growth of manufacturing investment in Q2 was mainly driven by tax reduction policy, the recovery of PPI, and enterprise profit growth.

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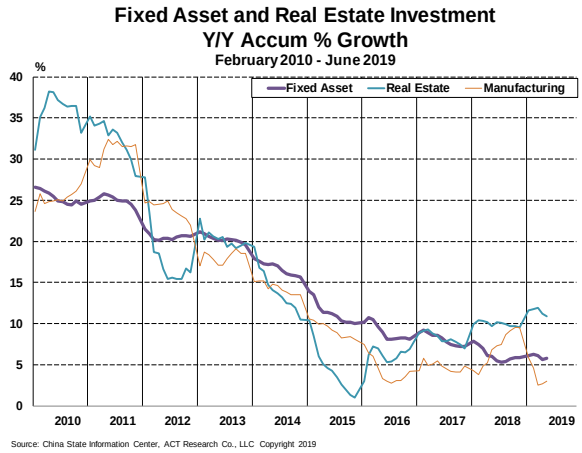
Infrastructure investment cumulatively grew 4.1% y/y in Q2, a bit lower than Q1. By month, there was an increase in June over May. The recovery of its marginal growth was at the same pace with the increase of special bond financing. Against the backdrop of downward economic trends, the central government adopted loose fiscal policy and allowed local governments to finance infrastructure projects with their special bonds, thus lending stronger support to infrastructure investment.

Real estate investment cumulatively grew 10.9% y/y in Q2, down 0.9 percentage points over Q1. The central government remained strategically robust but stopped short of stimulating real estate markets. Starting from April, local governments across the country tightened their real estate policy, which led to ongoing negative growth of sales areas. Coupled with tightened financing sources, the confidence of real estate enterprises was dampened, hence muting the cumulative real estate investment.



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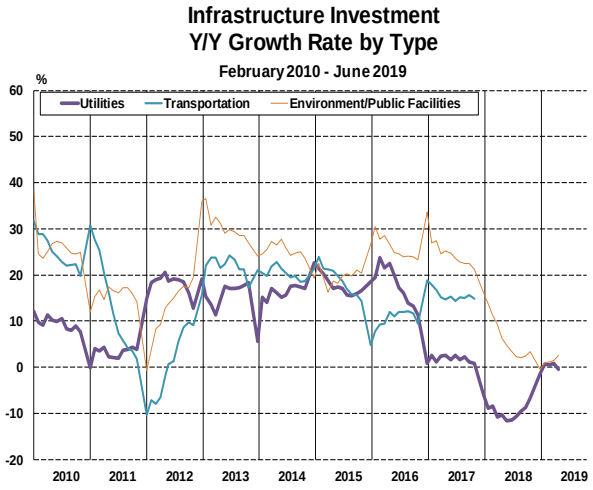

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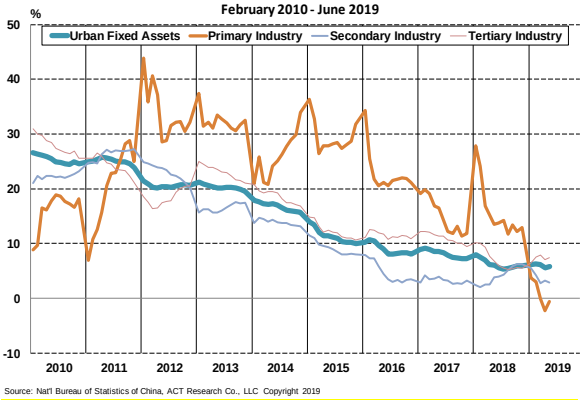
Total Investment and Industry Investment Y/Y Accum. % Growth



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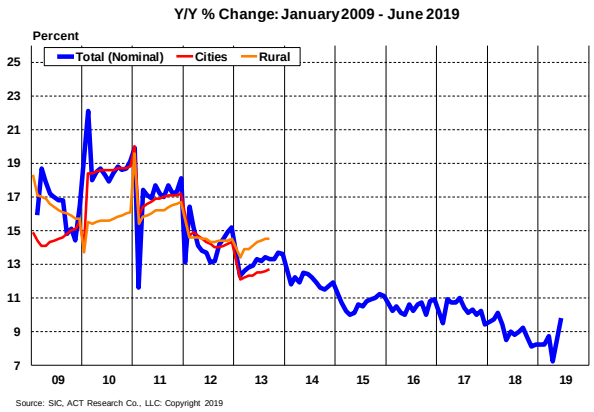
Retail Sales



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Consumption recorded an increase in June, Q2 consumption grew 8.4% ytd from like 2018, up only 0.1 percentage point from Q1. On a monthly basis, the trend showed stable increases, growing 7.2% in April, 8.6% in May, and 9.8% in June. The notable recovery in June was largely driven by automobile sales, which showed a significant increase of 17.2% y/y from June 2018.

These sales were driven by the implementation of the NSVI emissions standards on light vehicles in many places. It took effect on July 1, 2019. In response, dealers launched promotions of NSV vehicles to reduce their inventories. As is always the case in pre-buy situations, the elevated rate of sales was not sustainable beyond the implementation date. Y/Y growth was also attributed to the low base-year comparison from 2018. In addition, June's high CPI supported total retail sales recovery of consumer goods.

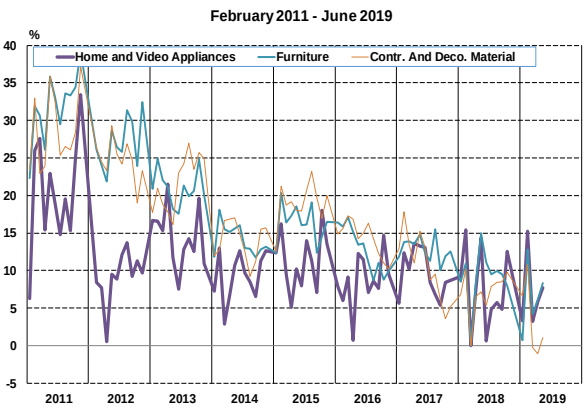
By segment and excluding automobile consumption, the demand for cosmetics, jewelry, sports and entertainment goods, pharmaceuticals, office supplies and furniture grew faster cumulatively y/y in Q2'19 compared to Q1'19, with the most notable increase came from cosmetics and automobile products. The cumulative growth rates of other products slowed to varying degrees in Q2.

Foreign trade: Both imports and exports had poor performances, which contributed to a receding trade surplus.

Export: The y/y growth rate of exports from April to June was -2.7%, 1.1% and -1.3% respectively, marking a decline from Q1. Causes of the sharp decline in exports were twofold: the deterioration in China-US trade and feeble foreign demand. In June, global manufacturing PMI dipped to 49.4, falling below 50 for a second time in two consecutive months. In the meantime, the World Trade Outlook Indicator (WTOI) dropped to 96.3. Overall, trade frictions between different countries have exacerbated the global economic decline and dampened global trade. This has negatively impacted China's exports.

Import: By month, the y/y growth rate of imports from April to June was 4.1%, -8.5% and -7.3%

Sales Growth of Selected Products



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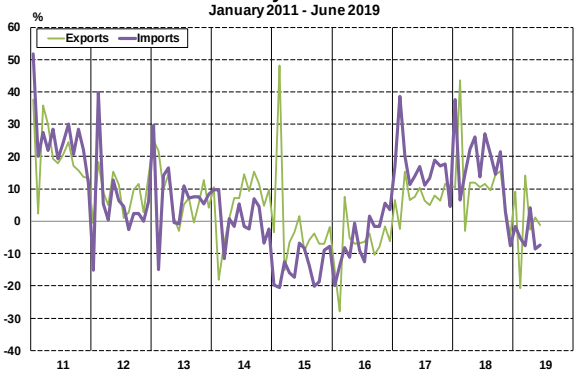
China's Import & Export Growth Monthly % Growth



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respectively. After a short-lived recovery in April, it was reduced to negative growth again. Overall, the biggest negative factor impacting imports remains domestic demand, as indicated by the under-50 PMI. Domestic demand was too subdued to support imports.

Trade balance: Trade balance from April to June stood at USD 13.693 billion, USD 41.734 billion and USD 50.976 billion respectively. While both import and export value plunged, China's trade balance still registered a trade surplus and even showed signs of recovery by month although the surplus appears to be receding.

Inflation: While CPI maintained trend, PPI continued to weaken.

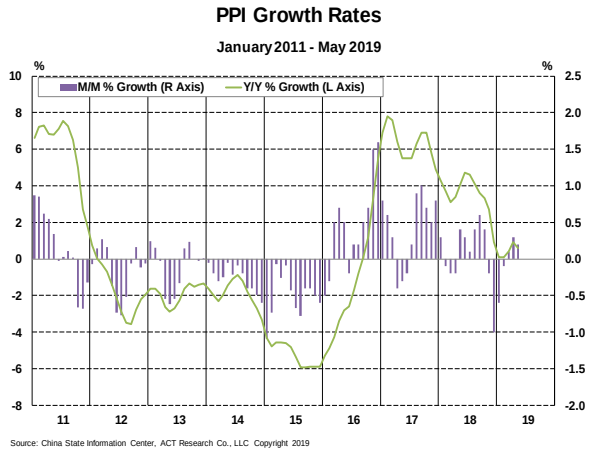
CPI in Q2 grew steadily, with y/y increases of 2.5% in April, and 2.7% in May and June. The flat June return ended the previous three months' upward trend. Since March, CPI has been above 2% for four consecutive months, due to the price rise of pork, vegetables, fresh fruits, eggs and other agricultural products.

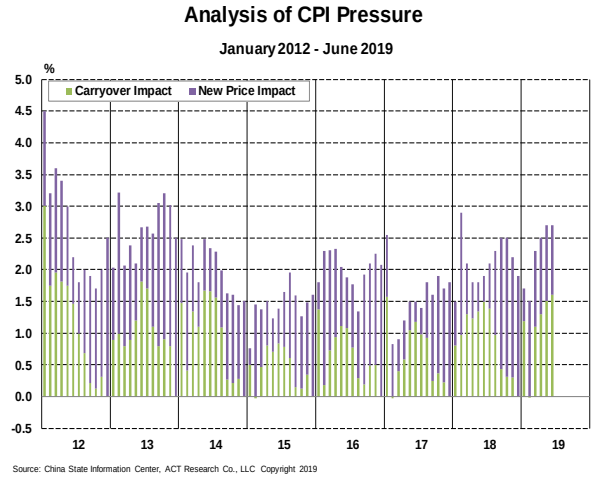
Core CPI, deducting food and energy prices, showed signs of a slight slowdown. It appears that some structural inflation is occurring, with food CPI rising 8.3% y/y, up 0.6 percentage points from a month earlier, and recording a historical high in the last seven and a half years. Non-food CPI grew 1.4% y/y, down 0.2 percentage points from a month earlier, and hit its lowest point since Q4'16.

Production inflation fell 0.3% in June. This was from the previous month's 0.6% increase. A higher base-year comparison also helps explain June's reading. Regarding consumer goods, a 0.9% y/y surge was recorded in June, which was virtually unchanged from the preceding month. In general, clothing and general commodities recorded a larger increase, food was flat with the preceding month and durable consumer goods recorded a slightly larger decline.

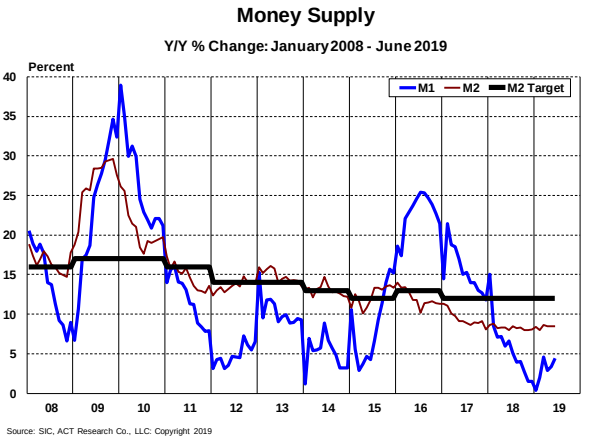
Monetary policy: M1 growth expanded in Q2, while M2 was virtually unchanged and new loans were downsized from a year earlier.

From April to June, the y/y growth rate of M1 reached 2.9%, 3.4% and 4.4%, respectively. M2 readings for the same three-month period were 8.5% in each month. Overall, the difference between M1 and M2 narrowed; and enterprise cash flows increased.





New RMB loans dropped by RMB 310 billion in Q2'19 from a year earlier for two reasons. First, following the massive increase in Q1'19, banks readjusted the issuing pace of credits. Second, enterprises' marginal demand for financing was weaker against the backdrop of downward economic trends.



SHORT-TERM FORECAST

In the second half of 2019, amid the China-US trade war and deceleration of China's real estate market, the economy will slow down further. It is estimated that GDP growth in Q3'19 and Q4'19 will decline to 6.2% and 6.1%, respectively.

Investment: Real estate and manufacturing investment is expected to face continued downward pressure even as infrastructure investment moves up gradually.

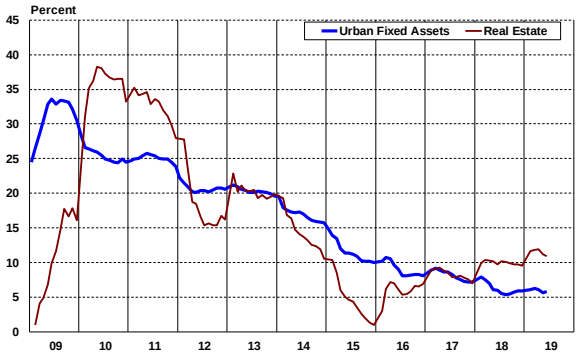
Real estate investment: The growth of real estate investment will slow down slightly.

The central government is determined to regulate housing activity, even in face of reduced land transfer fees and slowdown in GDP growth. The central government and the Ministry of Housing and Urban-Rural Development have reiterated the overall principle that "houses are built to be inhabited, not for speculation" since April. At the same time, real estate policy has been further tightened.

In addition, several leading indicators in real estate investment have experienced varying degrees of decline. The more stringent real estate policies have resulted in continuing declines in the sales area. Together with the tightening of funds, it has had a negative effect on the confidence of real estate enterprises, as new housing starts and land purchases slow down. Overall, the real estate rate of change in the second half of the year should continue to be negative.

Investment: Real Estate vs. Urban Fixed Assets

Y/Y % Change: January 2009 - June 2019



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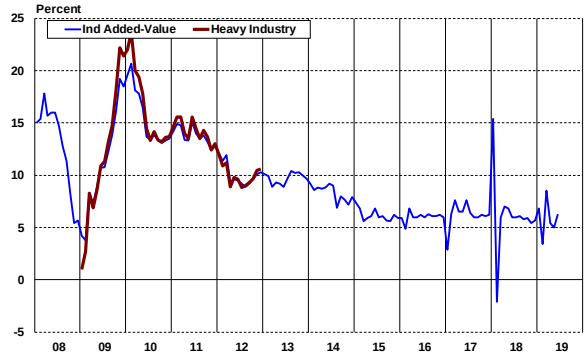
Manufacturing investment remains under downward pressure: Although profits of industrial enterprises have rebounded marginally since Q2, PPI remains weak. Coupled with the increasingly severe global economic situation, foreign investment continues to soften. Both have a negative impact on manufacturing investment. On the other hand, tax reduction policies have been implemented. In the second half of the year, there is still a trillion yuan of tax cut being put in place. With the release of the policy effect, it will help the recovery of business confidence, benefiting manufacturing investment. Overall, manufacturing investment in the second half of the year will still face significant downward pressure.

Industrial Production

Y/Y % Change: January 2008 - June 2019



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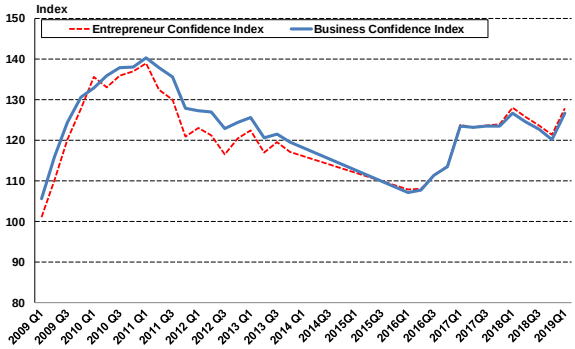
Business Confidence

2016Q1 - 2019Q1



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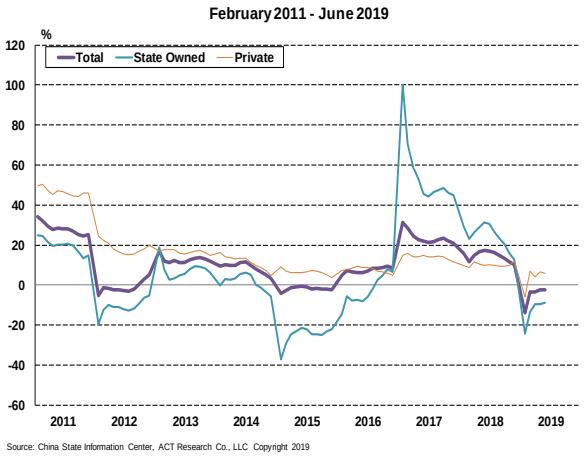
Infrastructure investment is expected to gradually recover: Infrastructure investment is very important for the government to maintain steady growth this year. The NDRC recently issued a document allowing special bonds to be used for capital in the early stage, and the issuance of these has started to accelerate, all of which will help lift the restraints off local

Y/Y Profit Growth by Corporation Type



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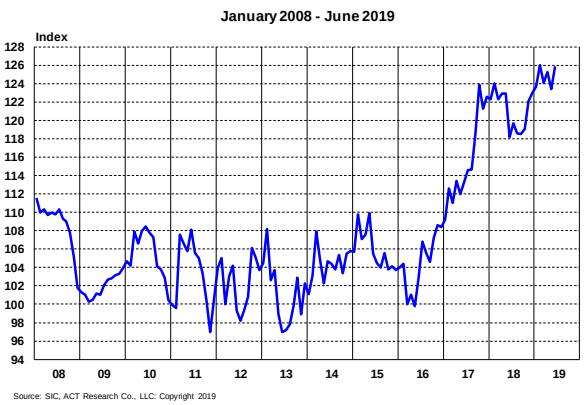
infrastructure investment growth. Generally speaking, the growth rate of infrastructure investment is expected to gradually pick up in the second half of the year.

Consumption: Consumption growth is expected to stabilize at lower levels than we've become accustomed to seeing.

The June consumption rate increase was mainly driven by the inventory clearance of NSV vehicles. This pull-forward sales level is unsustainable, and as is the case in pre-buy situations, will result in a drag on consumer spending in 2H'19.

In addition, borrowing ability will be limited, especially with mounting job market pressure. Overall, consumption is expected to decrease in the coming months. However, policies to promote spending, including personal income tax reform, will play a supporting role in consumption growth. This will serve to buttress consumption spending.

Consumer Confidence Index



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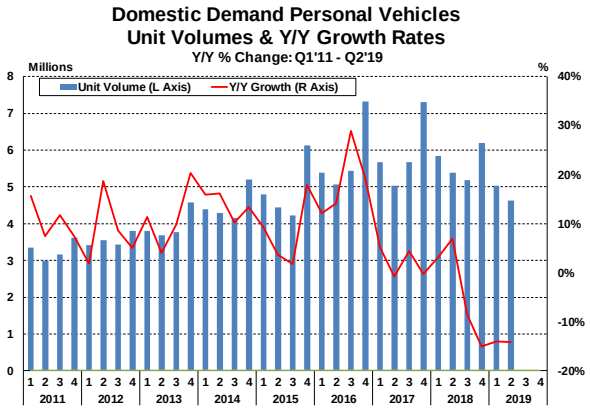
Domestic Demand Personal Vehicles Unit Volumes & Y/Y Growth Rates



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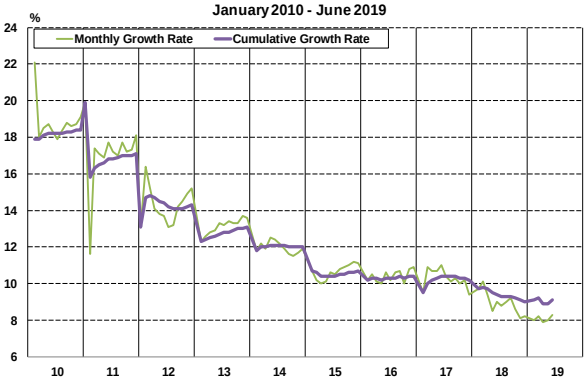
Retail Consumer Goods Growth Rates



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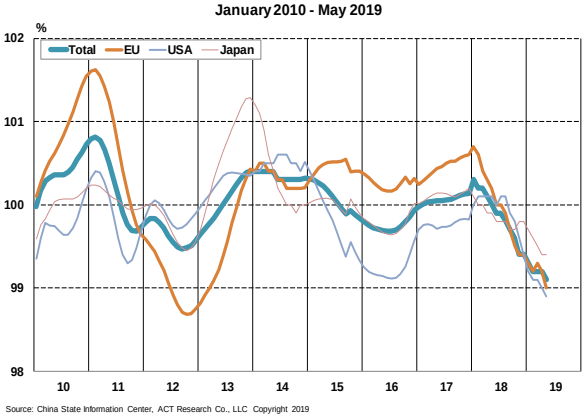
Foreign trade: Exports are under greater pressure and China's trade surplus is narrowing.

Although China and the US have returned to the negotiating table, the situation is still complicated and confusing, with great uncertainty. This is unfavorable for China's exports. Moreover, the high base-year comparison, brought about by the accelerated pace of shipments to beat last year's

OECD Leading Indicators



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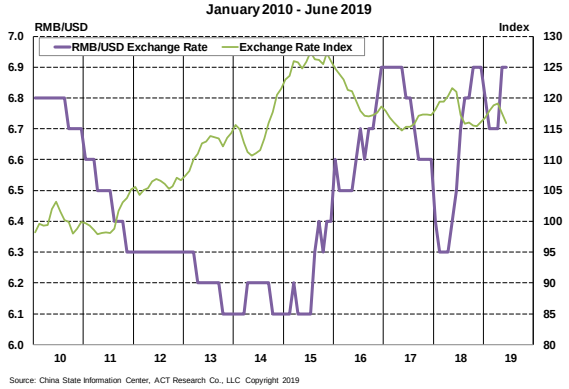
tariff announcements, will also adversely affect export growth in the second half of this year. Coupled with increasing global macroeconomic headwinds, export growth will likely continue to decline over the next two quarters.

Imports will also be affected by the trade conflict. The domestic economy is facing greater downward pressure, amid weak demand. However, with policies designed to benefit exchange with (non-contentious) trading partners to lower tariffs and expand imports, which will reduce the trade surplus, it is expected that import pressures will be less than those facing the export market.

In terms of foreign exchange, the RMB exchange rate broke through 7 against the USD. It is expected that under the circumstances of sufficient foreign exchange reserves and the deteriorating export environment, the possibility of the RMB returning to the appreciation trajectory is low. It is more likely to gradually stabilize.

RMB Exchange Rate



Inflation: CPI is projected to rebound slightly, while PPI will bear pressure.

CPI, driven by the rise in pork prices, is expected to increase in the second half of the year, but overall inflationary pressures will still be controlled. The full-year 2019 cumulative increase in CPI is expected to remain in a moderate range, around 2.6%, and is not anticipated to cause constraints on the central bank's monetary policy.

As for PPI, the global economic slowdown will become more and more evident in 2H'19. Lack of demand will be a strong drag on the price of crude oil. Meanwhile, mounting downward pressure of China's domestic economy will lead to weaker support on prices of industrial goods. PPI is expected to remain in a weak range through the remainder of this year.

Monetary policy is expected to support moderate easing in 2H'19.

In general, stable M2, social financing, credit, and other financial indicators, as well as reasonably abundant liquidity in H1, will not ease the downward economic pressure in H2. Therefore, it is expected to adopt easing monetary policies including RRR and interest rate cuts in H2.

The PBOC will maintain reasonably ample liquidity in the financial system by increasing the intensity of open market operations and targeted RRR cuts. It is also expected to use price-based monetary policy, such as cutting interest rates by lowering MLF. In the context of preventing financial risks, monetary policy is expected to move towards a moderately loose direction.

LONG-TERM FORECAST

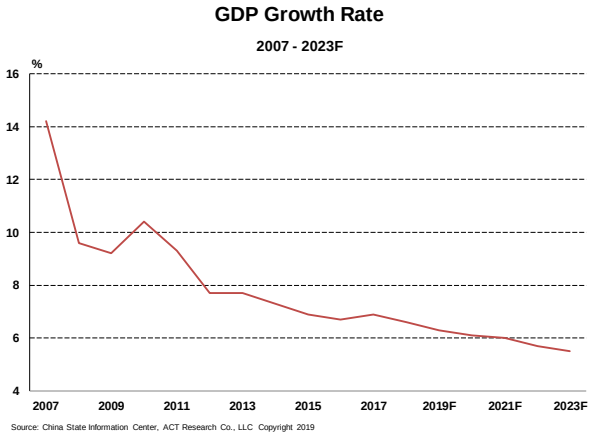
Macroeconomy

In the next five years, China's economy will face new rounds of adjustment, trimming the annual average economic growth rates to 5.9%. Considering China-US trade friction, it will take 2-3 years for China's economy to converge back to its long-term potential growth rate. In general, China's economy will grow at a moderate pace, turning from high-speed growth to high-quality development.

In the next five years, China's economy will face a complicated environment within which lie great opportunities. It is expected to decelerate but less dramatically if the external environment is relatively stable.

Expected opportunities include:

- Large potential for domestic demand: Domestic demand will be supported by the large middle class, consumption upgrade, policy initiatives to address disparities of regional development by boosting growth in lagging regions, and new urbanization.
- Capacity for supply expansion: The "New Economy" and the digital transformation of the traditional economy will push forward China's ambitions to develop into a major manufacturing power and service power.
- Effective government: Sensitive to economic trends, the Chinese government is adept at economic regulation and could make decisions rapidly.



Yet, the external environment for economic development will be complicated as a result of:

- Changing external policies, especially international trade: Downward global economic trends, and the China-US trade friction are among the causes of China's economic deceleration.
- Declining path of domestic demand: As China's macroeconomy enters the "new normal," both internal and external demand sectors are faced with slowdown pressures.
- Higher cumulative risks of economic operation: Risk of a debt crisis persists, in the midst of the need to do more for environmental protection.

Overall, China's economy is forecast to decelerate, but not dramatically. Growth will continue at a slower pace if the external environment is relatively stable.

TRANSPORTATION ENVIRONMENT

Overview:

Factors influencing Q2'19 transportation demand included:

- Decreased growth rates of road freight volume and turnover volume in Q2 relative to those recorded in Q1.
- The decline of road passenger and turnover volumes in Q2 narrowed slightly from Q1.
- Sales of passenger vehicles were grim and dropped by 14.0% y/y.
- Spotlight changes and trends in policies affecting sales and market structure of heavy duty commercial vehicles mainly include phase-out of NSIII vehicles, upgrading to NSVI emission standards, transport from road to railway and water, and 2019 NEV subsidy policy.

ROAD FREIGHT MARKET

Growth rates of road freight volume and turnover decreased slightly compared with Q1. Overtime, the expected decline in GDP growth and the flexibility of road freight transportation will reduce the growth rate of road freight volume and freight turnover. In the near term, the growth rate of consumption and infrastructure investment has stabilized, while real estate investment continues to decline. In general, the combination of those factors provide limited support to road freight volume and turnover.

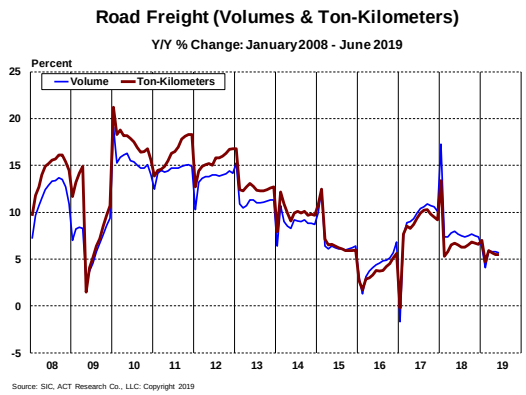
The growth rate of road freight volume is expected to slide in the next two quarters as GDP growth slows.

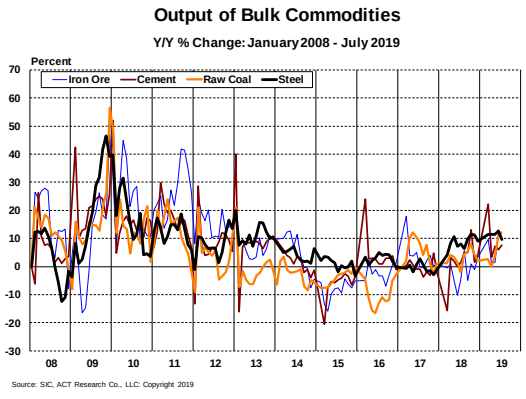
In detail, the transport demand of bulk commodities for the construction and energy markets will be relatively stable. However, the proportion of bulk commodities transported via road might continue to decline. The transport demand of consumer goods should rise slightly, even as the transport demand of foreign trade goods faces setbacks.

Bulk Commodities: In Q1'19, bulk commodity transport related to construction continued to increase y/y. The growth rate of iron ore and cement in Q2 narrowed relative to Q1, while steel output increased steadily amid flat growth of infrastructure investment and the declining growth rate of real estate investment in Q2.

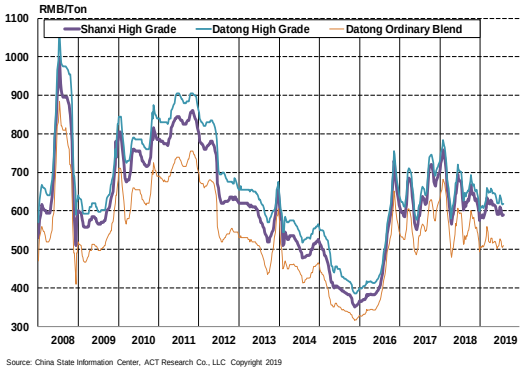
The transport demand of bulk commodities related to energy grew at a higher pace than Q1'19. Coal prices rebounded slightly from the previous quarter, as a direct result of coal import restrictions that led to an increase in domestic coal production. There was also a rise in the average coal transport distance.

The growth rate of bulk commodity transportation in the construction market is expected to be muted in the next two quarters. The July 30 central economic work conference clearly noted that "real estate will not be used as a means to stimulate the economy in the short term." Recently, the real estate and land markets have both been soft, and real estate investment growth is expected to continue to slow. The growth rate of infrastructure investment is expected to rebound in the second half of this year, but it will be difficult to reverse the weakening demand for transportation-related commodities in the construction markets. The overall trend is against the bulk commodity market.



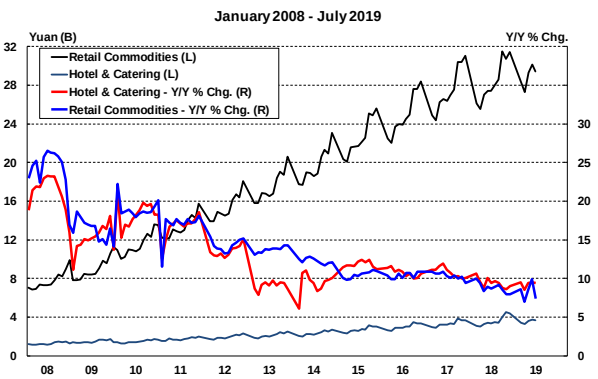


China Power Coal Prices - RMB/Ton



Source: China State Information Center, ACT Research Co., LLC Copyright 2019

Consumer Related Spending



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Demand for bulk commodity transport related to the energy market will be at a slower but steady pace for two reasons. First, the current coal reserves of major power plants are relatively high, since markets are in a period of relatively weak demand. Second and more importantly, the expected slowing is mainly because the governance of environmental protection will remain a top priority. New energy and renewables will grow more rapidly, while coal demand will weaken, resulting in falling prices. It is worth noting that, due to the modal shift of coal transport from truck to rail, the proportion of railway transportation of coal increases gradually. Therefore, the decline in the total transport demand of coal will exert an even greater impact on road transport.

Consumer Goods: The growth rates of retail sales and catering continued to rebound in Q2.

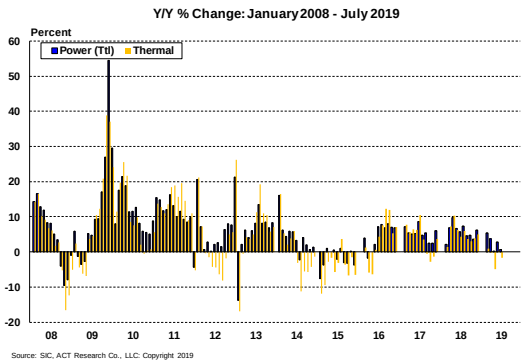
Consumption will grow steadily in the next two quarters. On the one hand, policies of tax and fee reduction such as individual income tax deduction and lowered VAT rates will increase disposable income and motivate consumption in the retail and catering segments, but increased housing mortgage spending will continue to temper consumption. Slower economic performance eventually has an adverse impact on the employment environment, which drags down the consumption of big-ticket consumer goods. That said, automobile sales grew in Q2, as a result of NSVI prebuys, but there will be an off-setting drag on sales in the coming two quarters. In general, consumption will grow steadily.

Foreign Trade Goods

The downward trend of foreign trade, both imports and exports, that started in Q1, continued in Q2. Accordingly, the growth rate of port cargo and container cargo throughput decreased slightly.

Exports and imports are expected to continue their descent in the next two quarters, with the former falling more sharply. In the second half of last year, in anticipation of further tariff increases in the US, the prebuy/pre-ship export rush that followed resulted in a relatively high import and export base for this year. Currently, although China-US trade talks are continuing, it is clear that they have entered a stalemate stage. Trump announced in

Power Generation



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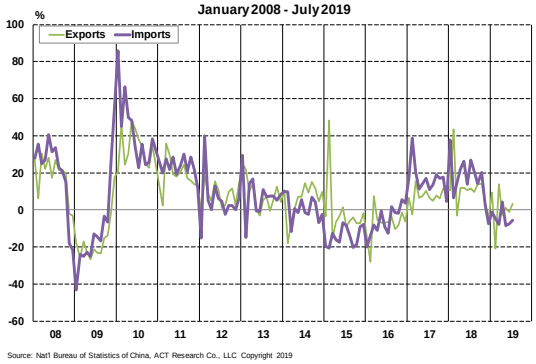
China's Import & Export Growth
Y/Y % Growth



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July that he would impose 10% tariffs on 300 billion USD worth of Chinese goods, beginning September 1, indicating that the uncertainty of China-US trade friction will continue. On September 1, the US levied a 15% tariff on $160 billion of Chinese goods; as a result, exports will be affected to some extent. However, lowering tariffs, expanding imports, and narrowing the surplus are policy requirements, so the decline in import growth will be smaller.

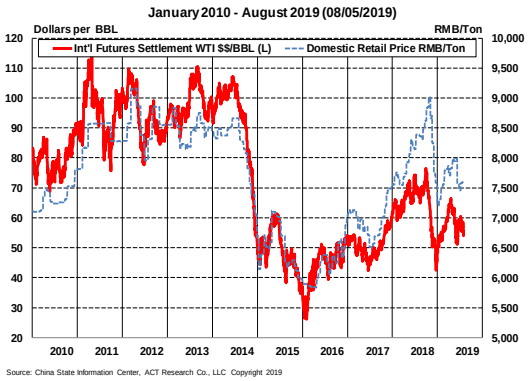
Given the current uncertain environment of trade relations, transportation demand supporting foreign trade goods is anticipated to contract, at least through the remainder of 2019.

Oil prices

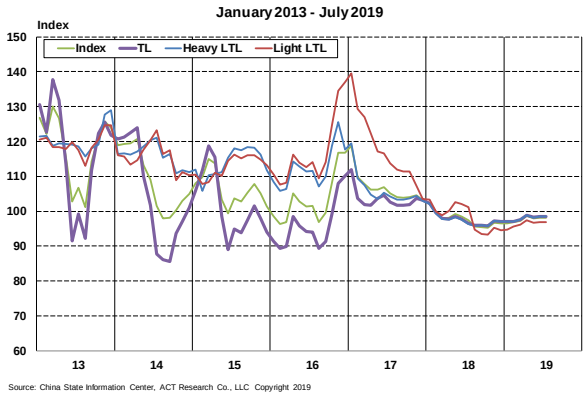
Q2 saw a rise in trade tensions, which resulted in lower global economic expectations and in the decline of international crude oil prices. During 2019's second quarter, US-China trade negotiation failed and the US was preparing to impose additional tariffs on EU and Mexico. All these led to continuous price declines in the global crude oil market.

In the next two quarters, crude oil price is estimated to remain low, but within a limited range. On one hand, the international trade disputes started by the US show no sign of stopping, and will maintain pressure on international crude oil prices. On the other hand, the OPEC production-cut agreement will offset the negative factors of trade to some extent. Therefore, it is very likely that international crude oil prices will only drop slightly.

International and Domestic Oil Prices



Freight Rates Index of Highway Logistics



Freight rates: In Q2, road freight rates rose slightly over Q1'19, but remained at a low level, mainly because transport capacity grew faster than freight demand. In a perfect supply-demand example, the freight capacity was still oversaturated.

The impact of overcapacity is expected to continue, so freight rates should fluctuate at low levels if no significant changes occur in road freight policies.

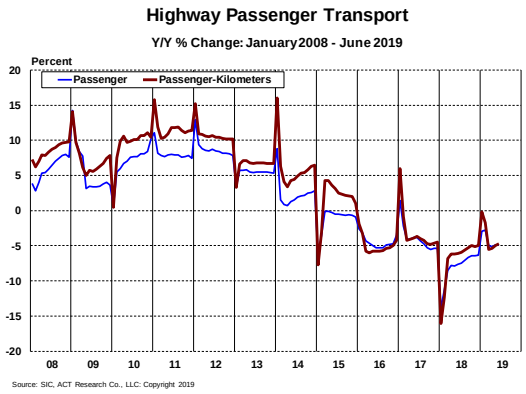
PASSENGER TRANSPORT MARKET

In Q2, road passenger volume and turnover volume had negative growth rates, but to a lesser degree than the previous quarter, due to substitution by private cars, railways, and airplanes.

In terms of residents' travel willingness, disposable income is likely to fall moderately and per capita consumption expenditure will grow steadily in the next two quarters, providing weaker support for private travel. In terms of official and business trips, profits of state-owned enterprises continued to trend downward in Q2, and private enterprises also slid slightly. Overall enterprise profits slowed, rendering weaker support for business trips.

It is predicted that road passenger volume and turnover volume will be restrained over the next two quarters.

In the long run, factors affecting road passenger volume are due to the changing structure of passenger transportation. First, the wide use of private cars causes a slump in public transport demand. Moreover, in terms of public transport, due to an extension of city bus routes, increasing mileage of high-speed railways and falling ticket prices of airlines, potential passengers turn to other means of transportation. The underlying reason is



that, with the massive rise of second-tier cities, China is entering a stage of urbanization centered on urban agglomeration, resulting in reduced travel distances required by the migrant population. As a result, road passenger transport demand will shrink.

Additionally, in the short run there will be downward pressure on macroeconomic performance reducing migrant worker demand. These factors further limit the growth of passenger transport demand.

PASSENGER VEHICLE MARKET

Passenger vehicle demand is a long-term factor influencing the highway bus and public bus markets. With an increasing demand for passenger vehicles, more residents use private vehicles to travel, which to some extent will reduce the long-term potential demand for large and medium buses. Passenger Vehicle (PV) sales reached 4.62 million units in Q2, a y/y decrease of 14.1%, but basically leveled with that in Q1'19, although the growth rate in June narrowed due mainly to the NSVI new emission standards prebuy.

Economy: Sino-US trade consultations have restarted, but there is still uncertainty, which will affect the direction of domestic policies. At present, domestic policies are gradually tilting toward stabilizing growth, but the majority policy effect will not be felt until Q4. Therefore, the automobile market is expected to improve in Q4.

Policy: The switch to NSVI has triggered PV inventory clearing through large price reductions. While that significantly enhanced sales in May-June, the subsidy transition for NEVs ended in June, so prebuy pressures in the NEV market should be done. Some areas released policies to promote consumption, providing off-setting support.

The implementation of NSVI Emission Standard on July 1 led to a pull-forward of Q3 demand into Q2, but the market should return to normal by Q4. In respect of NEVs, due to the transition period, sales in Q2 and at the end of the year will surge. Substantial growth will be maintained throughout the year, and the policy of promoting automobile consumption is mainly realized by the manufacturer's marketing method, which provides limited driving force for the market.

Market: National policies have been adjusted to achieve balance between stabilizing growth and risks prevention. China's economy recovered slowly and the economic support for vehicle market was less than expected. On the supply side of NSVI, there are basically enough vehicles to meet the transitional demand, so prices are expected to be stable through Q3, with preferential policies gradually recovering in Q4.

INDUSTRIAL POLICIES

Spotlight changes and trends in policies affecting sales and market structure of heavy duty commercial vehicles mainly include: phase-out of NSIII vehicles, NSVI emission standards, road-to-railway/road-to-water transition, NEV subsidy policy in 2019, and the refusal to license overweight vehicles.

1. NSIII phase-out has fueled the replacement of MHDTs. The year 2019 is a critical stage for the phase-out.

NSIII phase-out started in separate cities in Q4'17. Measures taken include: 1) Restricting traffic on specified streets and in particular regions, (this is the main method used) to phase out NSIII; 2) For cities with strong financial resources such as Beijing and Shenzhen, the governments give subsidies to ease the transition; 3) Refusal to grant or cancelling transport certificate and city-entry passes as a means to screen out NSIII vehicles, especially vehicles transporting construction waste, sand, and stones; 4) Stopping the annual inspection of NSIII vehicles , which is the most effective measure.

As *Three-Year Action Plan for Winning the Blue-Sky Defense War* indicates, by the end of 2020, Beijing, Tianjin, Hebei and surrounding areas and Fenwei Plain will phase out over one million units of diesel MHDTs of NSIII and below, and the whole nation will phase out 1.8 million units. Excluding the impact of natural scrappage/replacement, it will stimulate earlier replacement of about 800,000 MHDTs, and it is estimated that about 410,000 of those will occur in 2019.

In the next two quarters, it is estimated that NSIII phase-out will continue to positively impact the MHDT market.

2. Enhance NSVI Emission Standard: key areas will possibly implement the standard in the middle of 2020 in advance.

The NSVI Emission Standard began to be implemented on heavy duty LNG vehicles on July 1. For heavy-duty vehicles, Beijing alone has clearly stated that the NSVI Standard for public transport, sanitation, and postal services will be implemented on July 1. While other regions have not yet set their schedules, it is expected that key regions will adopt this standard for heavy duty commercial vehicles by mid-2020.

According to an SIC survey, NSVI emission standards will barely influence users' purchasing behavior. Few will choose to buy a vehicle ahead of time or postpone the purchase based upon the implementation of a regulation. Most users choose to "buy vehicle when necessary," which indicates that the new regulations will have a small influence on market sales timing.

3. Road-to-railway/road-to-water: An important measure of air pollution prevention, energy saving and emission reduction, which is unfavorable to MHDT demands.

China Railway published the *2018-2020 Freight Transportation Increment Action Campaign* in July 2018, indicating that railway freight volume in 2020 should increase by 30% from 2017 levels. Goods that are likely candidates for road-to-railway transition are mainly bulk commodities including coal and iron ore, as well as cars. Influenced by the benefits and capabilities of railway transportation, demand for highway transportation vehicles, especially coal transportation vehicles, will decrease due to the influence from road-to-railway transition, while demand for short-distance shuttle will increase. The combined influence is negative in total. According to SIC estimation, road-to-railway transition will lead to a reduction of MHDT demand by about 44,000 units in 2019.

As *Three-Year Action Plan for Transportation Structural Adjustment* indicates, road-port transportation would be reduced by 440 million tons before 2020, and water-transported goods should increase by 500 million tons. According to SIC estimation, road-to-water transition will lead to a reduction of MHDT demand by about 27,000 units in 2019.

4. NEV subsidy in 2019 continues to decline sharply.

In the subsidy scheme of 2019, subsidies for large and medium NEV buses will be cut by 50% to 60%, with the actual reductions based on vehicle length. Local subsidies are cancelled, and vehicle and operational efficiency will be needed to qualify for a subsidy. For example: The energy density threshold for a standard subsidy was raised from 115Wh/kg to 135Wh/kg. Energy consumption per unit load for a standard subsidy was lowered from 0.21Wh/km.kg to 0.15Wh/km.kg. Usage is also a factor, with vehicles traveling at least 20,000 km in two years (the former policy had no time limit).

However, public buses will be given special treatment. Four government ministries, including the Ministry of Finance, have jointly published the *Notice on Supporting the Promotion and Application of New Energy Buses.* The notice clearly states that the local subsidies for buses can be retained and the transition period extended to August 6th. After 2020, the use of subsidies should have accomplished the intended NEV adoption incentive; after that, new energy bus funding will be given on an award, rather than a subsidy, basis.

5. Licensing of overweight models is hindered: 6x4 dump trucks are heavily influenced.

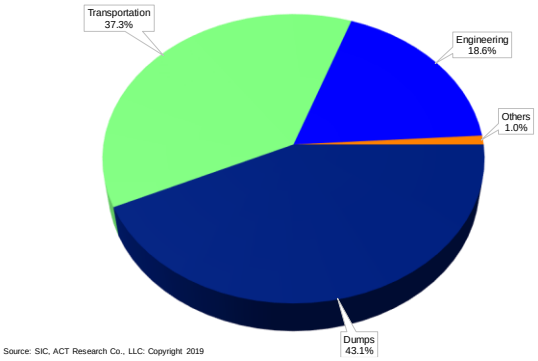
On May 21st, CCTV's program *Topics in Focus* revealed the long-standing problem of illegally licensing overweight models in the light truck market. The Ministry of Industry and Information Technology and the Ministry of Public Security subsequently issued a document indicating that the gray industrial chain of overweight vehicles is to be inspected and rectified.

The operation of overweight 6x4 dump trucks is a chronic issue that has existed for many years. After the program, termed the “521 incident,” many areas suspended licensing 6x4 overweight dump trucks, and some users switched to 8x4 models. Some others took a wait-and-see attitude, which also affected the market demand.

In July, the weighing process before licensing in some areas has been relaxed. Manufacturers and dealers can help users get licensed by replacing with aluminum alloy carriages and lightweight rear axles. Since then impact of this event on the market has eased.

Heavy-Duty Truck Sales

Share By Type: Q2'19



Affected by China's macroeconomy, industry environment and policies, Q2'19 market demands for heavy truck, tractor, and medium truck moved in different directions. To be specific, the domestic demand for heavy trucks fell nearly 29% y/y, while the tractor segment increased almost 30%, and demand for medium trucks declined 41%.

In Q2'19, because of subsidy changes, domestic demand for large and medium buses dropped nearly 23%, following a prebuy-impacted first quarter.

HEAVY DUTY TRUCKS (Dump & Straight)

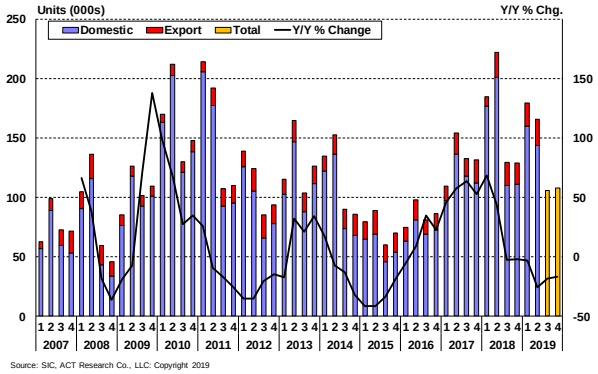
In Q2'19, domestic sales of heavy duty trucks (excluding tractors) totaled 143.7k, down nearly 29% y/y. Export sales were 22.2k.

Demand for domestic heavy trucks continued to decline in Q2, mainly due to last year's high base-year comparison caused by the impact of implementation and enforcement of China's CV overload control policies. In early 2018, the overload control policy was still positive for HDT sales. However, that benefit ended in 2H'18. Additionally, the heavy duty truck segment has been negatively impacted by a slowdown in real estate growth and lackluster infrastructure investment.

A view of heavy trucks by application shows that the market share of dump trucks was 43%, followed by freight hauling vehicles with a share of 37%. Market share of specialty trucks was in third place, increasing slightly to 19%. Sales of dump, freight hauling, and specialty HDTs posted -30.2%, -23.7% and -17.8% y/y performance, respectively.

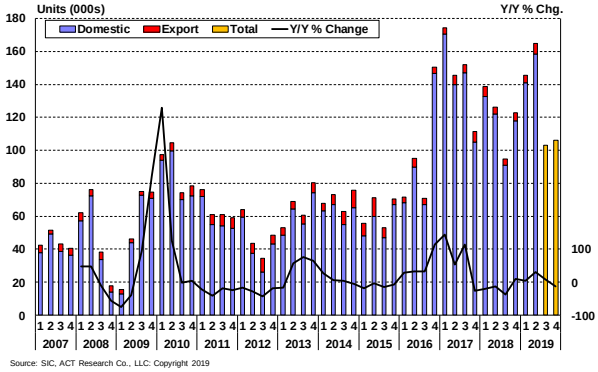
Heavy-Duty Truck Sales

Units & Y/Y % Change: Q1'07 - Q4'19 F



Heavy-Duty Tractor Sales

Units & Y/Y % Change: Q1'07 - Q4'19 F



Evaluating the segment by tonnage, the market share of heavy duty trucks with gross vehicle weight (GVW) larger than 32 tons remained tiny in Q2'19, at a mere 1.2%. In general, demand for heavier units is being cannibalized by the tractor segment. Share of 26-32 ton units continued to expand, now at 44%, while the market share of HDTs with gross vehicle weight (GVW) of 19-26 ton and 14-19 tons both grew, up 16.2% and 38.8% respectively.

HEAVY DUTY TRACTORS

In Q2'19, domestic tractor demand totaled 158.3k units, growing nearly 30% y/y. Export sales were 6.5k units.

There are two reasons why the tractor segment grew significantly in Q2'19.

1. Natural gas trucks grew rapidly, as a result of the natural gas NSVI policy, which started in key geographic areas on July 1st, meaning OEMs continued to clear remaining NSV stock during 2019's second quarter.

2. In an effort to improve efficiency and standardize fleets in a post-overload-control environment, customers' preferences now lean toward high power and lightweight tractors, impacting replacement preferences.

Evaluating the segment by tonnage, Q2's market share of tractors with gross trailer weight (GTW, the mass of trailer and load) between 25 to 40 tons remained the lion's share. The market share of tractors with GTW above 40 tons and with GTW below 25 tons reported increases in Q2'19.

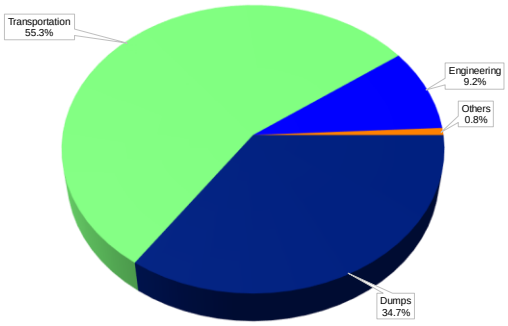
MEDIUM DUTY TRUCKS

The sale of medium duty trucks in Q2'19 contracted almost 41% y/y, with 28.1k units sold domestically. Export sales stood at 5.8k units.

Under the new GB1589 restrictions, transportation efficiency of medium trucks is obviously weaker compared to heavy trucks, creating a demand transfer to the heavier, more efficient counterpart. Another contributing factor lies in the fact that most people in rural areas no longer build their own houses, which required the use of medium duty dump trucks. Instead, rural residents are buying houses in more developed areas, reducing the need for medium trucks.

Medium-Duty Truck Sales

Share By Type: Q2'19



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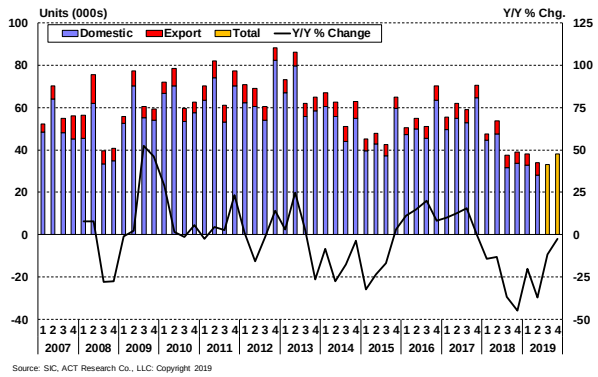
Medium-Duty Truck Sales

Units & Y/Y % Change: Q1'07 - Q4'19 F



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By application, the market share of freight-hauling trucks dropped significantly to 55% versus 65% in the previous quarter. Dump trucks, on the other hand, increased to nearly 35% from 26% in Q1, while special medium truck market share was virtually unchanged at 9%. Sales of the three types all contracted, down 40.7%, 23.8% and 51.9% y/y, respectively.

By tonnage, the share of the 6-8 ton group decreased, while 8-10,10-12, and 12-14 ton categories all increased.

LARGE AND MEDIUM BUSES

Q2'19 domestic sales of large and medium buses totaled 24.1k units, a 22.6% y/y drop. Export volume reached 9.3k units.

In 2019's second quarter, the subsidy standard fell sharply, causing the quarter's sales to drop, following Q1's prebuy activity that resulted in an uptick for that period. Additionally, the transition period for city bus incentives was delayed to August.

By usage, the share of city buses increased to 47%, while the share of coaches grew again, reaching nearly 35%. Tourist are at 5%.

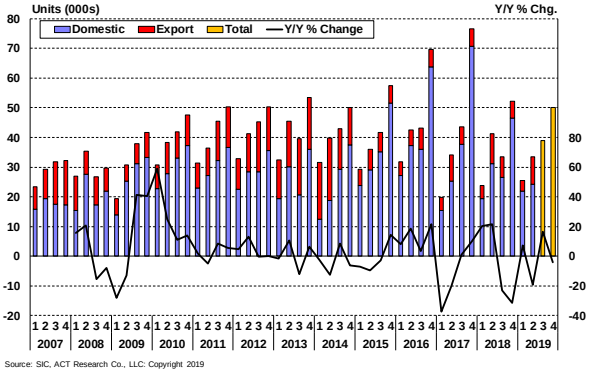
By bus segment, the demand for large buses decreased 17% in Q2'19. The share of non-gasoline and non-diesel vehicles shrank to 44%.

The demand for medium buses in Q2'19 registered a nearly 22% contraction. The share of non-gasoline and non-diesel vehicles increased slightly, reaching more than 51%.

By length, the share of buses measuring 7-8 meters and 8-9 meters reported a decline in Q2, while the share of buses measuring 9-10, 10-12 and >12 meters expanded.

Large & Medium Bus Sales

Units & Y/Y % Change: Q1'07 - Q4'19 F



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SHORT-TERM OUTLOOK

Heavy and medium truck markets (including tractor) will remain negative on a y/y basis during the next two quarters. Factors causing this weakness include:

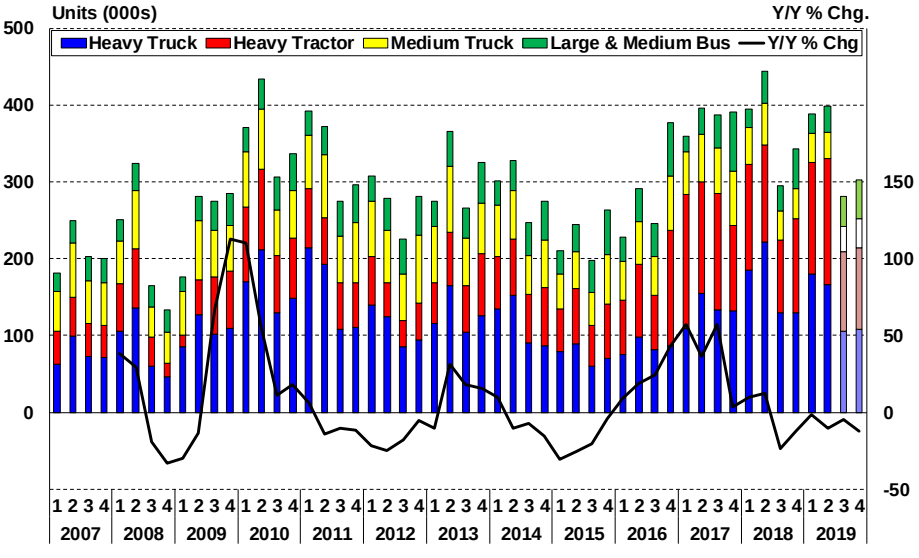
- Macroeconomy slows down. The economy is likely to give less support to the heavy and medium truck markets. Currently, governmental efforts to ensure steady economic growth includes a ramping-up of tax cuts and infrastructure investments. The impact of those efforts will be closely monitored.
- Policy environment: Market stimulus resulting from overload control has come to an end. As a result, y/y comparisons going forward will be negative. While NSIII phase-out keeps driving the market, the trend of freight shifting from road to railway will harm heavy truck demand, but the modal shift impact will be limited. Additionally, as enforcement is tightened on overweight vehicles and their owners are no longer able to obtain license plates, the result will be a negative short-term impact to the market. Overall, policies will still support the medium and heavy truck markets but to a weaker extent.
- Industry environment: Freight rates remain sluggish, although a slight rebound was recorded in Q2'19. Dealers are reporting that capacity in the market is approaching saturation, and overcapacity will negatively impact freight rates. The overall industry environment is negative for road transportation.

Medium and large bus sales are expected to stabilize in the next two quarters.

- 2019 NEV subsidies were released quite late (at the end of March), laying the foundation for the growth of medium and large bus sales in Q1, but also correspondingly reducing demand in Q2. That said, the transition period for NEV subsidies for some segments will not end until August 7th, meaning NEVs will perform relatively well in July.
- In 2019, subsidies for medium and large NEV buses were cut by 50%-60%, with a three-month transitional period. During the period, if the 2019 technical standards are met, the cut will be around 40%; otherwise, it will be approximately 90%. Subsidies in the transitional period are similar to the subsidies for 2H'19, meaning the impact to demand will be limited. Considering 2018's base-year comparison, sales are expected see moderate growth in Q3 before oscillating to the negative side of the ledger again in Q4.
- For reference, 1H'18 was the transitional period before subsidy cuts, during which time subsidies were high resulting in a pull-ahead of demand from subsequent quarters. It was expected that medium and large bus markets would decline sharply in Q2'19.

Grand Total Sales

Units & Y/Y % Change: Q1'07 - Q4'19 F



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LONG-TERM FORECAST

Policies and Regulations

In the next five years, policies on commercial vehicles will focus on environmental improvement and safety. These factors promote product upgrades of commercial vehicles, but will lead to demand fluctuations of the market.

The environmental focus includes new energy policies, emission upgrades, phase-out of low-emission vehicles and improved fuel efficiency, as well as substitution of freight movement from highway transportation to rail and waterways.

1. **New energy policies:** In recent years, top-level designs and major programs have been introduced to guide and support development of the NEV market. Specifically, the impact of new energy policies on the market comes in two stages. The first stage, a subsidy era, will occur before 2020; market demand will be mainly driven by subsidies. In this era, new energy subsidy policies have undergone a few adjustments and a new round of adjustments started in 2019. At the same time, promotion of buses and city road openings for logistics vehicles will play a significant role in promoting new energy commercial vehicles. The second stage, the post-subsidy era, will occur starting in 2021. The market will depend more on true supply and demand impact, supplemented by a series of non-subsidy policies, such as fuel consumption, emission management, and tax incentives, along with a ban on traditional-fuel vehicles.
2. **Emission upgrades:** Since July 1, all LNG-fueled vehicles have been required to meet the NSVI Emission Standard. Heavy vehicles such as sanitation, postal service and public transportation operating in Beijing also started to follow NSVI Emission Standard at the same time. It is expected that the implementation of the NSVI Emission Standard for heavy duty commercial vehicles in key geographic areas will start in 1H'20, with nation-wide implementation set for July 1, 2021. The tightening of emission standards promotes replacement of older vehicles and stimulates short-term market demand, but it also results in higher vehicle cost.
3. **Phase-out of high-emission vehicles:** Since 2H'17, key cities in Beijing-Tianjin-Hebei and the surrounding areas, Fen-Wei Plain (Fen River in Shaanxi & Wei River in Shanxi), Yangtze River Delta, and Chengdu-Chongqing region have carried out NSIII phase-out programs. The massive replacement of NSIII vehicles is an important way of improving air quality. On June 13, 2018, the State Council mapped out a *Three-Year Action Plan for Winning the Blue-Sky Defense War*, in order to reduce PM2.5 and heavily polluted days in key areas such as Beijing-Tianjin-Hebei and the surrounding areas, Yangtze River Delta and Fen-Wei Plain. The concern is over the size of airborne particulate matter, with the 2.5-micron level being particularly dangerous to health.

   Currently, specific policies for replacement have evolved from subsidies and traffic restrictions into disallowing annual renewals for NSIII vehicles in some areas. The policy works well and NSIII vehicle replacement is expected to be the main supporter of the CV market in 2019-2020.
4. **Fuel limits:** HCVs are currently implementing the Phase I fuel economy standards. The new target for HCV fuel consumption in 2020 is at least 15% improvement over vehicles registered in 2015; that is close to the international standards for advanced efficiency improvements. More stringent fuel efficiency will require more technically advanced vehicles, accelerating the adoption of NEVs. It will, however, raise vehicle acquisition costs.

The new version of GB1589 and overload/oversize control are driving the focus on safety.

1. **The new-version of GB1589** was released in July 2016 and formally implemented on January 1, 2017. To support the implementation of the new GB1589, the government has carried out strict enforcement regarding overloaded vehicles in operation. According to the new-version GB1589, vehicle size is adjusted: the width changes from 2.5m to 2.55m (refrigerated vehicle 2.6m), while the length limit of a trailer is 13.75m and that of a center-axle trailer is 12m. The height of cargo space (including cover) of three-and-more-axle

dump trucks should not exceed 1500 mm, and the original height standards were cancelled. Vehicle weight limits are also specified based on the number and configuration of axles. A 6-axle vehicle has a weight limit of 49 tons, while a 6-axle combination truck constituted by double-row wheel steering 6X2 or rear suspension 6X2 tractor has a total weight limit of 46 tons.

2. **To regulate overload and oversize** freight transportation, China has issued relevant documents such as *Action Plan for Overload and Oversize Control on Road Vehicles* and *Road Regulations on Oversize Vehicles.* An additional policy, *the Management Plan for Car Carriers*, specifically addresses oversize car carriers. The aggressive enforcement of these new policies resulted in a freight transport capacity shortfall, which increased demand for HDTs. It also generated improved logistics efficiency and brought changes to the HDT operations structure. The sharp increase of tractors from 2016 to 2018 basically filled the gap in transport capacity. Additionally, it helped limit degradation of the country's infrastructure from overweight vehicles.

   In the next five years, overload/oversize control will continue to be enforced on national and provincial roads, but this will not occur simultaneously. Impact resulting in increased demand for heavy trucks, such as replacement of special-purpose vehicles such as concrete mixers, will be ongoing until implementation and enforcement at all governmental levels is complete. This will be a slow process and the timing and pace will vary from region to region.

   On May 21st, CCTV's *Topics in Focus* program reported on the long-standing problem of illegally licensing overweight models in the light truck market. This broadcast is also referred to as the "521 incident". The Ministry of Industry and Information Technology and the Ministry of Public Security subsequently issued a document indicating that this "gray area" industrial chain of overweight vehicles is to be inspected and rectified. In particular, the overweight 6x4 dump truck is a chronic challenge that has existed for many years, which will undoubtedly be affected by this regulation. After the 521 incident, many areas suspended licensing 6x4 overweight dump trucks. As a result some users switched to 8x4 models, while others took a wait-and-see attitude. In July, the weighing-before-licensing was relaxed in some regions, but in the long run, scrutiny of lightweight vehicles will be the trend. Therefore, the proportion of the 6x4 dump truck will shrink in the future.

Transportation Market

This includes freight transportation and the passenger transportation market.

The freight market can be analyzed from the following four aspects: total volume, usage/logistics patterns, modes, and efficiency.

1. **Total volume:** According to historic economic patterns, as China enters the later stage of industrialization in the future, freight elasticity of GDP will continue to decline. Considering the more modest growth of the economy and implementation of logistics improvements, the growth rate of freight demand will be even slower.

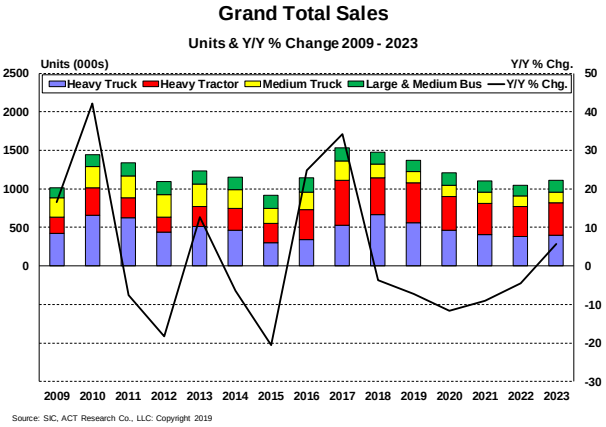
2. **Freight usage/logistics patterns:** Supported by "the Belt and Road Initiative," "Yangtze River Economic Zone," and "Integration of Beijing-Tianjin-Hebei Region," China's logistics industry will turn from being export-oriented to domestic consumption-oriented. The original logistics transport is unbalanced among regions. Raw materials in the north and west are transported to the south and east (typically, coal in the west transported to the east). The export-oriented economy leads to shipment of finished products from the east to foreign countries. These patterns result in inefficient freight transport, overloaded transport vehicles, and high empty backhaul rates. The future freight market will present new and improved balanced transport between regions, as: local conversion of materials increases and total volume of transport declines. A transport pattern/routing characterized by inland hubs forms, and the export-oriented demand will gradually shift to a domestic consumption-oriented one. Transport structure of this kind will lead to lower empty-load rate, standard loads, less-than-truckload transport, more medium and short-distance transport, and

reduced long-distance and truck freight demand, which stimulates demand for medium and short-distance logistics.

3. **Modes of transportation:** Road freight will still occupy a dominant position, but its share of overall freight transportation will be eroded by railways and water transport modes. The *Three-Year Action Plan* proposes a modal shift from road to railway, by which railway freight will reach 4.79 billion tons in 2020, an increase of 30% or 1.1 billion tons compared with 2017. Plans for high-speed railways are upgraded from "four verticals and four horizontals" (the arrangement and availability of mainline routing) in 2020 to "eight verticals and eight horizontals" in 2030. Railway capacity will nibble away at the share of road freight, but the modal shift for freight will be evolutionary, not revolutionary. This is negative for medium and heavy duty truck demand over the long-term.

4. **Freight efficiency:** Scale development, information development, and platform integration will boost logistics efficiency. Development of Internet+, e-commerce, and telematics technology promotes integration within the logistics industry. Large specialized logistics companies with high efficiency will become mainstream. Those efficient logistics companies will have more stringent requirements on OEMs and vehicles, resulting in more high-end vehicle models. Asset-light logistics enterprises, which rely on information development and take advantage of integration of different platforms, will become a dominant force in the future. Growing asset-light logistics platforms also places a higher premium on vehicle uptime expectations, just like large-scale asset-heavy logistics companies, that stimulate demand for high-end vehicles, which provide higher levels of operational confidence.

5. **In terms of the passenger transportation market**, demand for highway passenger transport has been declining steadily in recent years, mainly due to the decline of a floating population, resulting from a balanced approach of economic development that makes more efficient use of available local employment. Some modal shift in passenger transport also results from increased high-speed railway



development. According to statistics, the size of the floating/transient populations has been down for two consecutive years. Population policies of different cities have also led to a relative decrease in traveling distance.

FUTURE DEMAND FORECASTS

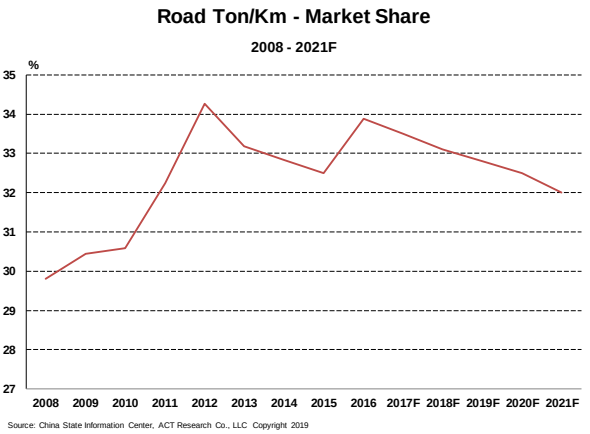
Medium and heavy duty trucks

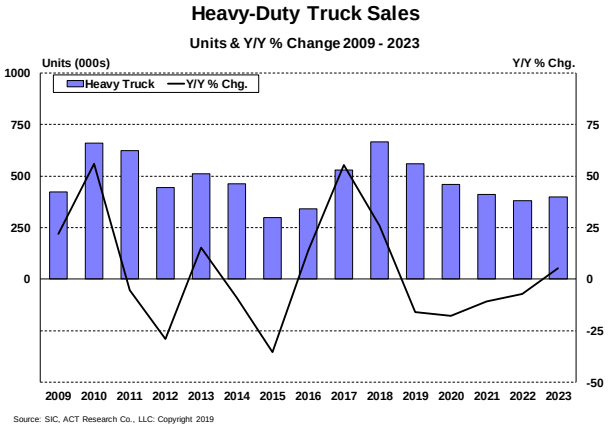
In the next five years, demand for MHDTs will reach about 1,020,000 units on average, with a steadily declining trend. Reasons for that trend include:

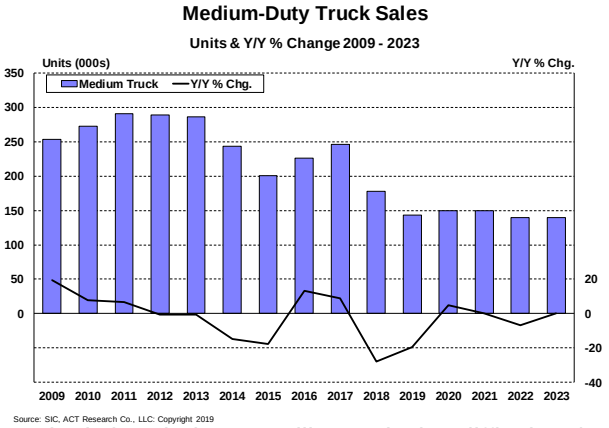
1. **Economic deceleration:** Macroeconomic growth and the growth rate of MHDT population are highly correlated. With softening GDP growth, the expected growth rate of MHDT population will drop accordingly and demand for new MHDTs will narrow.

2. **Drop in freight elasticity leads to decline of MHDT demand:** In the next five years, China will be in a stage of economic structure adjustment and industrial upgrading. With domestic consumption promoting economic growth, tertiary industry (more service-sector oriented, but less freight intensive sectors) gradually dominating and secondary industry achieving optimization of internal structure (low-end manufacturing transforms to high-end manufacturing and emerging industries grow rapidly), freight elasticity will drop. Demand for engineering medium and heavy duty trucks will drop, while demand for logistics medium and heavy duty trucks should increase.

3. **Improvement of freight efficiency will also eventually reduce truck demand**.







4. **Share of highway freight is squeezed by railway:** Highway freight will still dominate in the future, but its share will decline slowly. This modal shift negatively impacts the medium and heavy duty truck market In July 2018, the Railway Corporation issued the *2018-2020 Freight Increase Action Plan*, clarifying the goal of increasing railway freight volume by 30% in 2020 compared with 2017. Currently, the goods suitable for the modal shift mainly include coal, large commodities such as iron ore, and cars. Due to the characteristics of railway transportation, demand for highway transportation, especially coal transportation, will be reduced due to the impact of the "shift of road to railway" campaign. Demand for short-distance freight transport will increase. The overall impact will be more of a negative one. According to SIC estimates, the shift from highway to railway will reduce the demand for heavy trucks by about 113,000 vehicles by 2020, or by 21,000, 44,000 and 48,000, respectively, from 2018 to 2020.

   According to the *Three-Year Action Plan for the Adjustment of Transport Structure*, the transportation of roads and ports will be reduced by 440 million tons by 2020, and the freight volume of water transport will be increased by 500 million tons. According to SIC estimates, the shift from highway to waterway will reduce the demand for heavy trucks by about 68,000 vehicles by 2020, or by 14,000, 27,000 and 27,000, respectively, from 2018 to 2020.

5. **High comparison base due to control on overload and oversize HMDTs:** The high prior-year volumes and over-capacity in the logistics industry will result in difficult y/y comparisons for the MHDT market in 2019. According to a SIC calculation, from September 21, 2016 to the end of 2018, the efforts generated new demand equivalent to 640,000 units, peaking in 2017, but slowing down gradually in 2018. Its impact will be much smaller in 2019, down by 150,000 units versus 2018, leading to increased replacement sales starting in 2023.

Factors sustaining the stable performance of MHDT include:

1. **Economic growth** impacts the MHDT market mainly by affecting freight demand, which is a function of freight transport demand from construction, bulk commodities, consumption and foreign trades. The growth of logistics demand is guaranteed even with the modest economic growth rate projection of 5.9%.

   Stabilizing the economy through counter-cyclical adjustments and accelerated

infrastructure investment will provide support for MHDT demand.

2. **NSIII phase-out:** The *Three-Year Action Plan* requires that more than 1 million units of NSIII-and-below diesel trucks be phased out by 2020 in Beijing-Tianjin-Hebei and the surrounding areas, as well as Fen-Wei Plain. The national phase-out impact of NSIII MHDT is estimated to be around 1.8 million vehicles. According to an SIC calculation, when excluding natural scrappage, an early replacement of about 840k medium and heavy trucks will result, of which 270k were projected in 2018, 410k in 2019, and 160k in 2020.

3. **Steady growth of exports:** Export of medium and heavy-duty trucks will maintain steady growth. This market benefits from export destination demand (markets that are in the early-stage or mid-stage of industrialization and show high demand for MHDTs, with product similar to Chinese products). This export segment will also benefit from the Belt and Road Initiative. Finally, given large sales volume, nearly saturated demand, and accelerated emission upgrade, relevant authorities have issued policy encouraging exports of used vehicles. At the end of April, the Ministry of Commerce, the Ministry of Public Security, and the General Administration of Customs issued the Notice on Supporting the Export of Used Vehicles in Conditionally Prepared Areas, and released the first batch of ten pilot provinces and cities, which will benefit the export of medium and heavy duty trucks.

Medium and large buses

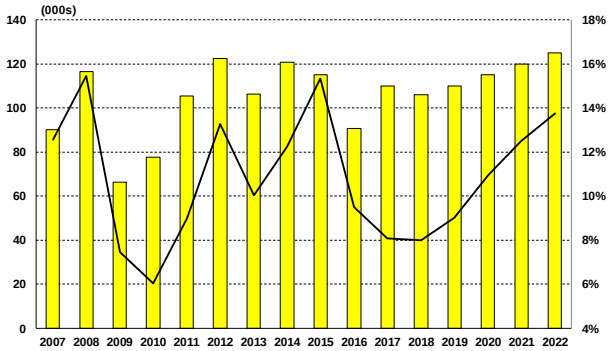
In the next five years, medium and large bus demand is expected to reach 150,000 units (higher than previous forecasts). In terms of segment market, demand for highway buses will continue to decline, while public buses will still have growth potential until 2020.

1. Highway buses

The highway bus market consists of long-distance buses and urban-rural buses. Judging from of the pattern of influencing factors, it appears that highway bus demand will decline in the long term.

MHDT Export

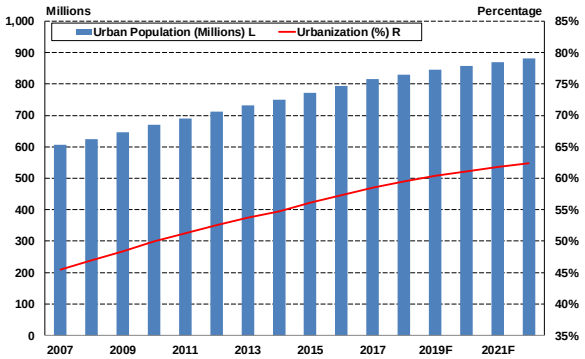
2007 - 2022



Source: SIC, ACT Research Co., LLC: Copyright 2019

Forecast of Population Urbanization

2007 - 2022F



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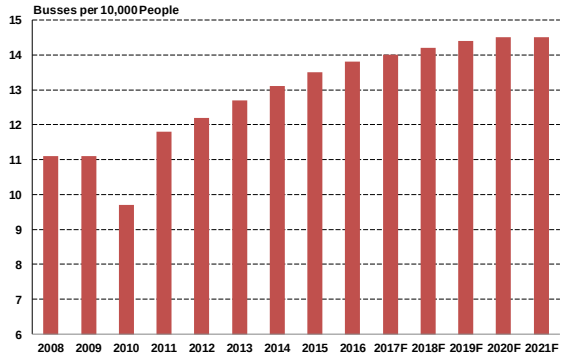
Forecast of Bus Usage

2008 - 2021F



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The size of the floating population has declined for two years in a row and population policies in different cities have shortened necessary traveling distances. Furthermore, high-speed railway and private cars cannibalize regular highway bus routes, which is unfavorable for highway buses in the long term.

Tourist buses will become the main alternative to highway buses, and NEV buses will penetrate the tourist market segment. Tourism accounts for an

increasing proportion of residential travel, which is good for growth of the tourist bus segment.

Customized passenger transport emerges with the rise of Internet + passenger transport. This will help road passenger transport to compete with high-speed railways, thus delaying the downward trend of highway passenger transport demand, but it will be insufficient to reverse that trend.

2. Public buses

The public bus market is still expected to grow and support L & M bus markets in the next five years. The NEV bus will become the major factor in the public bus market.

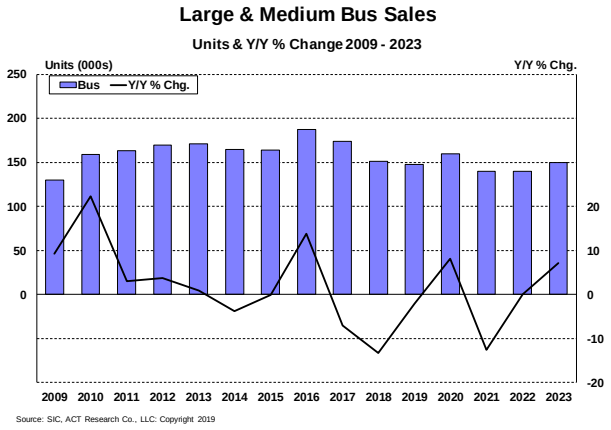
Urbanization is the driving force for the public bus market. Over the next five years, continuous promotion of urbanization will lead to increasing urban population and expanding urban areas, which will in turn facilitate growth of public buses.

Favorable policies are an important guarantee for the growth of public buses. The three-year action plan on “defending blue sky” clearly states that newly added and replaced public buses in urban areas will be new energy or clean energy vehicles. In key areas, 80% of public buses will use new or clean energy. That said, 2019’s NEV subsidy program calls for a sharp decline in bus subsidies, reducing available funds by 50 to 60%, with special exceptions for public buses. In May of 2019, the Ministry of Finance and four other ministries and commissions issued the *Notice on Supporting the Promotion and Application of New Energy Buses*. The notice clearly states that local subsidies for public buses can be retained. After 2020, operational subsidies will be improved, and new energy bus operations will be supported by rewards instead of subsidies.

3. School buses

China’s school bus market is typically policy-based. In 2012, the *School Bus Safety Management Regulations* was implemented, and the market ushered in explosive growth. It entered a three-year stable period in 2014-2016, with demand weakening in the 2017-2018 period.

This market is highly dependent on subsidies and the operating system. Insufficient subsidies is the main reason for the decline of school bus demand. Compared to previous years, there are fewer subsidies now. Currently, only a few regions have



created school bus purchase and/or operational subsidies. (School buses are not included in new energy announcements, so no new energy subsidies apply to school buses). Additionally, the operating system is still far from sufficient. Only Guangdong and Henan have established relatively complete school bus operations, where school bus operators achieve profitability. Therefore, the market is mainly in those provinces; the top seven provinces combined account for nearly 70% of the market.

The future of this market also is dependent on policies. Assuming that there will be no new favorable policy, the market will be stable at a low level. Industry experts believe that school bus policy can be improved in the following ways.

- First, new energy announcements should include school buses. Currently no new energy announcement means no purchase subsidies for school buses.
- Second is to provide school bus systems with operational subsidies. School buses are also public service-oriented and they should enjoy the same treatment as public buses.
- Third, it is recommended to support improved school bus management and control, inspection of illegal school buses needs to be strengthened. Furthermore, school buses should be allowed to carry out other profitable activities when they are not in use for student transportation.

Meanwhile, strict checks should be made against non-compliant school buses and the government should urge these schools to replace units with compliant vehicles.

SHORT TERM FORECAST (including export)

	2017					2018					2019				
	Q1	Q2	Q3	Q4	2017	Q1	Q2	Q3	Q4	2018	Q1	Q2	Q3(F)	Q4(F)	2019(F)
Heavy Trucks	109,576	154,244	132,953	131,947	528,720	184,815	222,243	129,637	129,261	665,956	179,887	165,904	106,000	108,000	559,791
Heavy Tractors	174,454	145,410	152,036	111,357	583,257	138,558	126,228	94,602	122,623	482,011	145,587	164,810	103,000	106,000	519,397
Total Heavy-Duty	284,030	299,654	284,989	243,304	1,111,977	323,373	348,471	224,239	251,884	1,147,967	325,474	330,714	209,000	214,000	1,079,188
y/y % growth	*93.8%*	*55.2%*	*87.5%*	*2.8%*	*52.7%*	*13.9%*	*16.3%*	*-21.3%*	*3.5%*	*3.2%*	*0.6%*	*-5.1%*	*-6.8%*	*-15.0%*	*-6.0%*
q/q % growth	*20.0%*	*5.5%*	*-4.9%*	*-14.6%*		*32.9%*	*7.8%*	*-35.7%*	*12.3%*		*29.2%*	*1.6%*	*-36.8%*	*2.4%*	
Medium-Duty Trucks	55,463	61,868	58,926	70,442	246,699	47,619	53,814	37,396	38,943	177,772	38,052	33,910	33,000	38,000	142,962
y/y % growth	*10.2%*	*12.5%*	*15.7%*	*0.3%*	*8.9%*	*-14.1%*	*-13.0%*	*-36.5%*	*-44.7%*	*-27.9%*	*-20.1%*	*-37.0%*	*-11.8%*	*-2.4%*	*-19.6%*
q/q % growth	*-21.0%*	*11.5%*	*-4.8%*	*19.5%*		*-32.4%*	*13.0%*	*-30.5%*	*4.1%*		*-2.3%*	*-10.9%*	*-2.7%*	*15.2%*	
Large & Medium Buses	19,867	34,021	43,516	76,598	174,002	23,846	41,336	33,488	52,287	150,957	25,511	33,407	39,000	50,000	147,918
y/y % growth	*-37.3%*	*-20.1%*	*0.9%*	*10.0%*	*-7.0%*	*20.0%*	*21.5%*	*-23.0%*	*-31.7%*	*-13.2%*	*7.0%*	*-19.2%*	*16.5%*	*-4.4%*	*-2.0%*
q/q % growth	*-71.5%*	*71.2%*	*27.9%*	*76.0%*		*-68.9%*	*73.3%*	*-19.0%*	*56.1%*		*-51.2%*	*31.0%*	*16.7%*	*28.2%*	
Grand Total	359,360	395,543	387,431	390,344	1,532,678	394,838	443,621	295,123	343,114	1,476,696	389,037	398,031	281,000	302,000	1,370,068
y/y % growth	*57.2%*	*36.1%*	*57.4%*	*3.6%*	*34.2%*	*9.9%*	*12.2%*	*-23.8%*	*-12.1%*	*-3.7%*	*-1.5%*	*-10.3%*	*-4.8%*	*-12.0%*	*-7.2%*
q/q % growth	*-4.6%*	*10.1%*	*-2.1%*	*0.8%*		*1.2%*	*12.4%*	*-33.5%*	*16.3%*		*13.4%*	*2.3%*	*-29.4%*	*7.5%*	

FORECAST DATA

LONG TERM FORECAST (including export)

	2014	2015	2016	2017	2018	2019(F)	2020(F)	2021(F)	2022(F)	2023(F)
Heavy Trucks	464,346	299,281	340,321	528,720	665,956	559,791	460,000	410,000	380,000	400,000
y/y % growth	*-9.1%*	*-35.5%*	*13.7%*	*55.4%*	*26.0%*	*-15.9%*	*-17.8%*	*-10.9%*	*-7.3%*	*5.3%*
Heavy Tractors	279,352	250,704	388,108	583,257	482,011	519,397	440,000	400,000	390,000	420,000
y/y % growth	*6.1%*	*-10.3%*	*54.8%*	*50.3%*	*-17.4%*	*7.8%*	*-15.3%*	*-9.1%*	*-2.5%*	*7.7%*
Total Heavy-Duty	743,698	549,985	728,429	1,111,977	1,147,967	1,079,188	900,000	810,000	770,000	820,000
y/y % growth	*-3.9%*	*-26.0%*	*32.4%*	*52.7%*	*3.2%*	*-6.0%*	*-16.6%*	*-10.0%*	*-4.9%*	*6.5%*
Medium-Duty Trucks	243,450	200,432	226,552	246,699	177,772	142,962	150,000	150,000	140,000	140,000
y/y % growth	*-15.0%*	*-17.7%*	*13.0%*	*8.9%*	*-27.9%*	*-19.6%*	*4.9%*	*0.0%*	*-6.7%*	*0.0%*
Large & Medium Buses	164,549	164,299	187,076	174,002	150,957	147,918	160,000	140,000	140,000	150,000
y/y % growth	*-3.8%*	*-0.2%*	*13.9%*	*-7.0%*	*-13.2%*	*-2.0%*	*8.2%*	*-12.5%*	*0.0%*	*7.1%*
Grand Total	1,151,697	914,716	1,142,057	1,532,678	1,476,696	1,370,068	1,210,000	1,100,000	1,050,000	1,110,000
y/y % growth	*-6.5%*	*-20.6%*	*24.9%*	*34.2%*	*-3.7%*	*-7.2%*	*-11.7%*	*-9.1%*	*-4.5%*	*5.7%*

HEAVY TRUCK & TRACTOR OEMs

STRAIGHT TRUCKS (excluding tractors)

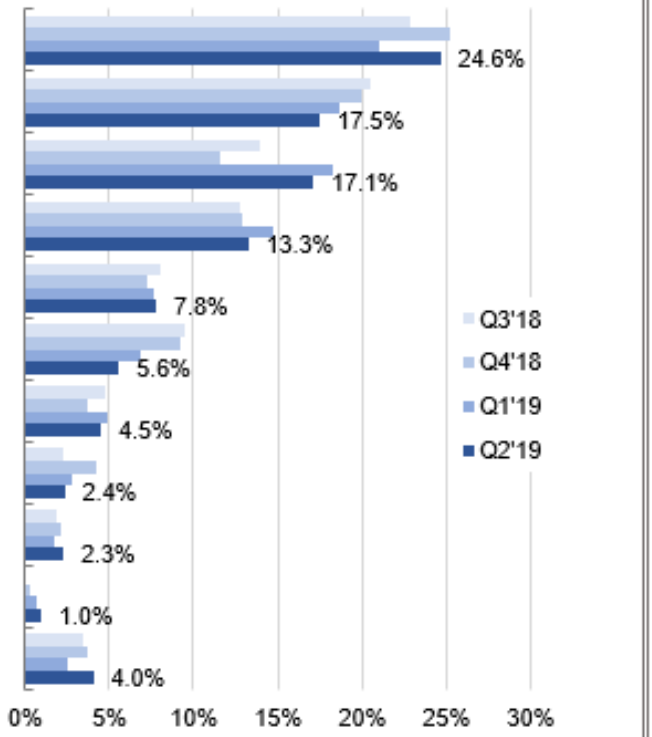
In Q2'19, the top three heavy truck OEMs were again Dongfeng, CNHTC and FAW, with Shaanxi Auto maintaining fourth place. That said, only Dongfeng was able to grow its market share, now at nearly 25%. The top ten OEMs in the market make up 96% of the market. Sales volume of heavy trucks declined over the same period of last year, down more than 25% y/y. Double-digit growth again this quarter was reported by XCMG, while eight of the top ten OEMs' sales contracted by double-digits. Foton's quarterly sales plummeted the most, down nearly 57% on a y/y basis.

Major factors impacting Q2 competition were:

- The economic slowdown, including slower consumption and a low level of infrastructure investment, provided less support to heavy trucks.
- Compared to the tractor segment, Q2 saw a significant decline in the demand for straight and dump trucks, as well as specialty vehicles. The dump truck segment was negatively impacted by a high base-year comparison and slower investment growth, while straight truck growth was hampered by GB1589, which favors tractors.
- Dongfeng's Q2 market share expansion was attributed to its "five platforms" marketing strategy, which caters to providing purpose-built products and was designed to enhance the company's competitiveness.
- XCMG, well-known for construction trucks, benefited from the stabilized growth rate of infrastructure investment, albeit it at a lower level than in past years.

Heavy Duty Truck Market Share Trends

Make	Q2'19 Sales	Q2'18 Sales	Y/Y % Change
Dongfeng	40886	44345	-7.8%
CNHTC	28980	42135	-31.2%
FAW	28419	39340	-27.8%
Shaanxi auto	21994	31742	-30.7%
SIH	12918	17966	-28.1%
Foton	9247	21446	-56.9%
JAC	7470	9326	-19.9%
CAMC	3911	4678	-16.4%
XCMG	3783	3264	15.9%
Beiben	1583	2368	-33.2%
Other	6713	5633	19.2%
Total	165904	222243	-25.4%



TRACTORS

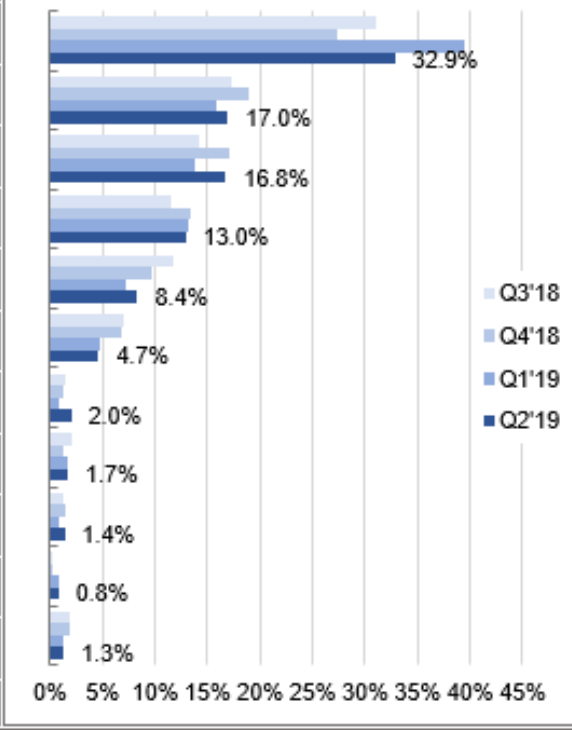
Despite losing market share in Q2'19, FAW was able to maintain first chair in the heavy duty tractor segment. FAW currently controls 33% of this market. The top three positions were rounded-out by Shaanxi Auto and Dongfeng, both with about 17% of China's tractor segment and both increasing market share over the past three months. Q2's top ten market concentration is 98.7%, basically even with the last three quarters. China's tractor market oscillated to the positive side of the ledger in Q4'18, continuing that positive momentum in Q2'19 by gaining nearly 31% compared to Q2'18. This was a significant gain compared to the 5% y/y increase reported in Q1, with only one of the top ten manufacturers reporting negative comparative sales, while most of the others are showing double-digit growth.

Factors influencing Q2'19 tractor market included:

- There were three policy-related reasons for the high growth rate:
  1. The phase-out of NSIII vehicles in key areas did not lose momentum, as implementation was strongly enforced via annual checks, although some local governments refused to perform the yearly required inspections on NSIII vehicles.
  2. The implementation of NSVI Emission Standard is increasing sales of NG trucks.
  3. GB7258 produced a cannibalization-effect, whereby HD vehicle buyers purchased tractors rather than straight trucks.
- FAW and Shaanxi Auto, which are prevailing in LNG tractors, benefited the most from the NGV shift and ranked top two in sales volume.
- On the other hand, Foton was unable to garner NGV demand, and Foton Cummins does not have a strong natural gas-based engine position in China's tractor market.
- SIH's 56% y/y growth rate resulted from a low base-year comparison and the company's efforts to produce new tractor models.

Heavy Duty Tractor Market Share Trends

Make	Q2'19 Sales	Q2'18 Sales	Y/Y % Change
FAW	54192	37576	44.2%
Shaanxi auto	28000	21201	32.1%
Dongfeng	27672	20719	33.6%
CNHTC	21350	14557	46.7%
Foton	13808	15050	-8.3%
Dayun	7695	6642	15.9%
SIH	3352	2150	55.9%
JAC	2860	2363	21.0%
XCMG	2312	2116	9.3%
Beiben	1356	1270	6.8%
Other	2213	2584	-14.4%
Total	164810	126228	30.6%



MEDIUM DUTY TRUCK OEMs

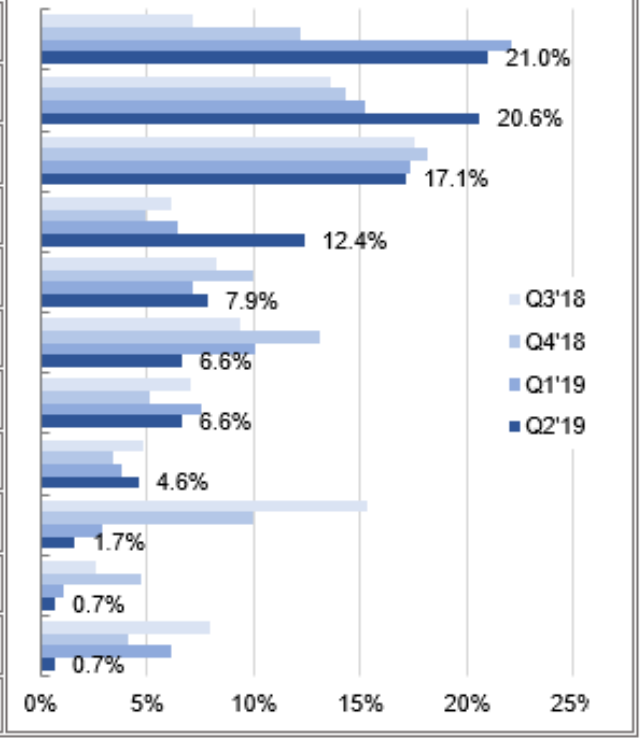
BAIC Group continued to hold the top medium duty segment position, with 21% market share. Dayun Auto was able to move from third to second place in Q2, pushing Dongfeng into the third seat. Dayun now controls nearly 21% of the medium duty truck market, while Dongfeng still holds a healthy 17%. Ranking among the top ten OEMs continues to fluctuate, and sales of medium trucks in Q2 remains on a downward trend, performing worse than its heavy-duty counterparts, down 37% compared to Q2'18. The top ten OEMs accounted for 99.3% of the market, more than the 98.2% controlled in Q1'19.

Contributing factors to the competition pattern of medium duty truck included:

- The market decline in Q2 was mainly due to the trend of MD transferring to HD.
- Only two of the top ten manufacturers were able to grow sales, BAIC (+126% y/y) and Qingling Motors (+3% y/y). Additionally, six of the other eight OEMs recorded double-digit y/y sales contractions.
- Because BAIC Foton reclassified some heavy trucks to the medium truck category, a different way of data reporting to CAAM that was noted in last quarter's report, the share of BAIC Group expanded rapidly and its sales increased substantially, but it is important to note that this "expansion" was not driven by actual market demand.
- FAW continued its notable sales contraction in Q2, due to its shift in focus to heavy duty vehicles.
- The top five medium duty truck makers fared better than those in the lower rankings, indicating a more concentrated medium duty market.

Medium Truck Market Share Trends

Make	Q2'19 Sales	Q2'18 Sales	Y/Y % Change
BAIC Group	7124	3148	126.3%
Dayun Auto	6992	7094	-1.4%
Dongfeng Group	5812	9600	-39.5%
Tangjun	4203	4285	-1.9%
Qingling Motors	2675	2597	3.0%
CNHTC	2254	4739	-52.4%
Anhui JAC	2252	3605	-37.5%
FAW Group	1568	1999	-21.6%
Zhejiang UFO	560	8791	-93.6%
CNJ Group	237	725	-67.3%
Other	233	7231	-96.8%
Total	33910	53814	-37.0%



LARGE & MEDIUM BUS OEMs

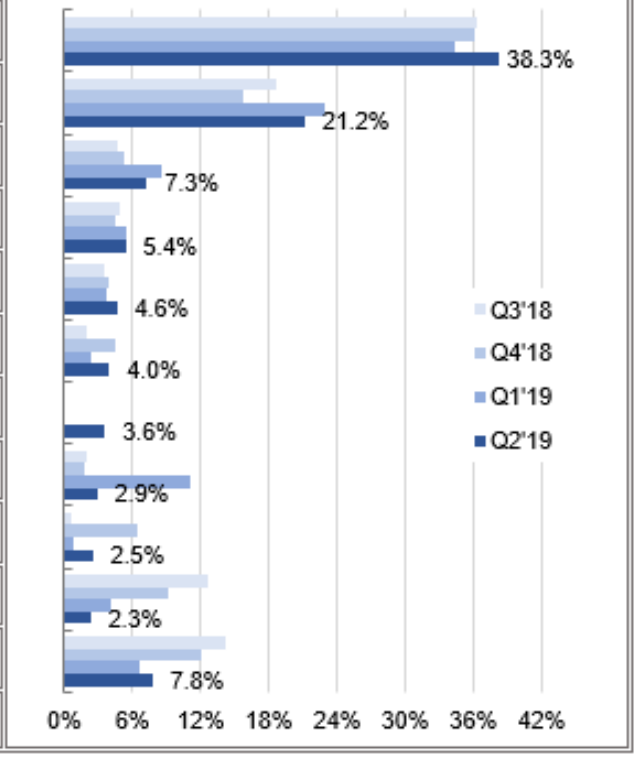
Yutong Group and King Long Motor were able to maintain their respective first and second-place ranking in the large and medium bus segment, but BAIC Group dropped from third to eighth position this quarter, while Zhongtong captured this segment's third seat. Yutong continued its solid sales volume lead, growing its market share to more than 38% and increasing its lead over the second place OEM King Long Motor. Zhongtong, despite being in third place, controls only 7% of the medium and large bus segment. The top ten OEMs in this market accounted for 92.2%, down from last quarter's 96.8%.

The large and medium bus market was impacted by the following factors in Q2'19:

- The NEV subsidy policy for 2019 was issued at the end of March (2018 was issued in early February), which resulted in a Q1 prebuy to maximize new energy buses incentives that was reversed in Q2. This was the key factor in this segment's second quarter decrease.
- Yutong and Zhongtong were able to capitalize on their well-recognized NEV products and marketing efforts, against a backdrop of poor segment sales.

Medium and Large Bus Market Share Trends

Make	Q2'19 Sales	Q2'18 Sales	Y/Y % Change
Yutong Group	12807	12913	-0.8%
King Long Motor	7078	9397	-24.7%
Zhongtong Bus	2444	2599	-6.0%
Anhui JAC	1804	2011	-10.3%
Dongfeng Group	1550	2143	-27.7%
Asiastar	1325	1273	4.1%
Zhuhai Yinlong	1202	0	NA
BAIC Group	971	945	2.8%
SAIC Group	846	377	124.4%
BYD	778	2469	-68.5%
Other	2602	7209	-63.9%
Total	33407	41336	-19.2%



MARKET DEVELOPMENTS

CAMC will soon launch its 13L NSVI engine: In late July, CAMC announced that its Hanma-branded 13L NSVI engine will come to market in October as part of a new truck model launch. The Hanma 11L NSVI engine is expected to be available by the end of this year.

Cummins and Isuzu enter into power-source partnership agreement: Cummins and Isuzu will join forces to create higher R&D efficiency, as well as stronger cost performance. The two sides will develop and jointly introduce new diesel and NG-based powertrains to the market, as well as cooperate on electrification efforts.

FAWDE and Deutz (Dalian) are rebranding as Jiefang Power: On June 26, FAW launched Jiefang Power, combining FAWDE and Deutz (Dalian) into one brand to address product duplication, confusion in consumer perception, and differences in services. FAW will rely on Jiefang Power to compete with other engine manufacturers in China, but FAWDE will continue to be the overseas brand.

GAC Hino introduced a new high-horsepower product: On July 23, GAC Hino introduced the newly imported 13L engines at its Guangzhou product launch conference. The new offering shows strong power, efficient fuel economy, and optimal cost performance.

Yuchai and Foton built a new strategic alliance: The companies have agreed on NSVI product configuration, oversea market exploration, and NEV development, marking a further step of cooperation between the two key players in China's vehicle and parts manufacturing industry.

Daimler and Beiqu Foton to deepen alliance: The plan calls for Mercedes-Benz branded trucks to be produced in China. Initially discussed in 2016, this effort appears to finally be underway. The existing JV will reportedly revamp a plant that currently has a 60k-unit capacity and expand another plant from an existing 60k level to a 100k capacity. Value of the investments and completion date are currently unknown.

ZF and Foton to produce automated CV transmissions: In a joint plant located in Jiaxing, ZF Foton HCV Automated Transmissions will produce the TraXon 12 speed unit for the Chinese market. The transmission will also be offered with the Intarder transmission brake, according to a report by Robotics and Automation News.

Appendix: Location in China mentioned above

Hangzhou①	Wuxi②
Guangzhou③	Yulin④

DATA SPECIFICATION: Trucks in China are classified by European weight categories versus US categories. Medium duty trucks in China are rated between 6 and 14 tons. That is reasonably equivalent to Class 4-7 vehicles in the US. Heavy duty trucks in China are those with GVWs over 14 tons and are equivalent to heavy duty Class 7 and Class 8 in the US. The table below illustrates the classification system of vehicles in China.

Classification of trucks in US		**Classification of trucks in China**			
		Mini	**Light**	**Medium**	**Heavy**
Class	**Weight (pounds)**	**<1.8T**	**1.8-6T**	**6-14T**	**>14T**
Class 1	6,000				
Class2	6,001-10,000				
Class 3	10,001-14,000				
Class 4	14,001-16,000				
Class 5	16,001-19,500				
Class 6	19,501-26,000				
Class 7	26,001-33,000				
Class 8	>33,000				

Where US trucks fall in China's classification system	
Not included in this class	
Small portion included in this class	
Major portion included in this class	
Totally included in this class	

Bus Market Segmentation		
Bus Type	**Bus Length**	**Passenger Capacity** (Including Driver)
Medium Bus	7 to 10 Meters 23 to 33 Feet	24 to 43
Large Bus	Over 10 Meters Over 33 Feet	44 or more

The importance of the China commercial vehicle market has resulted in several alliances being formed between China OEMs and OEMs from around the world. These arrangements can vary in their complexity and strategic intent. For reference, the following table lists current alliances for China's top commercial vehicle OEMs.

China OEM	**Alliance with**
BAIC Group (Foton)	Daimler
Dongfeng Group	Volvo
Shanghai Auto (SAIC) / Hongyan Truck	IVECO
CHNTC Sinotruk	MAN

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