China State Information Center
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COMMERCIAL VEHICLES Forecast

China Commercial Vehicle OUTLOOK

Q3 2017

国家信息中心
State Information Center

ACT Research

Contributor to Blue Chip Economic Indicators
and WSJ Economic Forecast Panel

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HIGHLIGHTS

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MACROECONOMIC ANALYSIS

- China's GDP in Q2'17 grew by 6.9% y/y, exceeding expectations.
- Consumption was a source of positive momentum, accounting for more than 63% of the quarter's GDP growth.
- Overall, investment provided nearly 33% of Q2's GDP uptick.
- Prices as measured by CPI rose by 1.5% y/y in Q2, primarily driven by lower food prices.
- After hitting 7.8% y/y in February, PPI has fallen since hitting a trough bottom at 5.5% in May, June, and July.
- China will hold its 19th National Congress during Q3, but with no change in leadership, the government is expected to maintain the current trend of economic momentum.
- Economic growth is expected to return an average annual increase of 6.5% throughout the next five-year period.

TRANSPORT ENVIRONMENT & INDUSTRIAL POLICIES

- The GB1589 regulation and its enforcement, as well as China's NEV policy shift, continued to have an impact on commercial vehicle demand.
- Infrastructure investment remained on its growth trajectory, albeit at a slightly slower pace.
- After spending five consecutive months in negative y/y territory, the ytd y/y growth of both planned total investment of new projects and the amount of accumulative new projects returned to the positive side of the ledger in June.
- After relatively hot investment earlier this year, China's real estate investment slowed in Q2 from its April peak, as expected.
- Railway transport investment grew 4% in April and 3% in May 2017.
- Road transport investment reached almost 25% in April, 23% in May and June, and 24% in July.
- Domestic consumption in Q2 continued to grow, up 10%-plus in each month this year.
- In Q2'17, road passenger volume and turnover volume decreased at a slower rate than in the previous quarter, an overall improvement.

MEDIUM & HEAVY TRUCK MARKET PERFORMANCE

- Driven by the impact of the GB1589 regulation, the tractor segment continues to fare well, with nearly 56% expansion in Q2.
- In Q2'17, domestic sales of heavy duty trucks (excluding tractors) totaled 136,561 units, increasing nearly 69% y/y. Export sales were 17,683 units.
- Domestic tractor demand increased nearly 56% in Q2. Export sales were 5,498 units.
- Q2'17 medium duty trucks' growth rate was nearly 10% y/y, with 54,769 units sold domestically. Export sales stood at 7,099 units.
- Q2'17 domestic sales of large and medium buses totaled 25,306 units with 32% y/y contraction. Export volume reached 8,715 units.

FORECAST

- The largest impact of recent policy changes is the dramatic shift from HD trucks to tractors as the power unit of choice for logistics.
- In the short-term, heavy trucks and tractors, as well as medium-duty trucks, are expected to see y/y growth continue in Q3.
- In the next five years, China's economic restructuring and upgrades to its industrial sector will mean a weakening demand for trucks used for construction, but an increase in those vehicles for freight hauling and logistic purposes.
- In the next five years, the expansion of China's urban population and areas, as well as favorable policies, will make public buses the primary driving force of growth in the bus market.

MARKET COMPETITION

- China's top two straight truck manufacturers maintained their market share positions in Q2'17.
- FAW was able to maintain its top position in the tractor segment, despite its market share taking a two ppts hit in Q2 and falling to around 30%.
- Although all three leaders held their respective market positions in the MD segment at the end of Q2'17, the actual concentration by each gyrated significantly.
- Yutong was able to hold onto the top bus segment position, although the group's market penetration dropped ten ppts to 31%.

CHINA MARKET CHANGES: The China Commercial Vehicle Market continues to be the largest in the world, at roughly two times the size of the developed world's two leading regional markets (Western Europe and North America). China's market has been undergoing structural changes for more than a decade. These changes are impacting the total market volume, as well as the types of vehicles being purchased, and will continue to impact the forecast for the foreseeable future. Taken in total, the market will shrink from its peak of 1.45 million units in 2010 to the forecast just under 1 million units in 2021, a decline of 31%. Heavy duty truck demand will decline 54% over that time frame, while tractor volume will contract 11%. As a result, total heavy duty demand will slide 39%. Medium duty trucks will fall by 25%. 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 or alternative fuel) perspective, medium/heavy bus volume will expand by 8% from 2010 to 2021. Bus volume, however, did not peak until 2013; volume in 2021 is projected to be up less than 1% from that point.

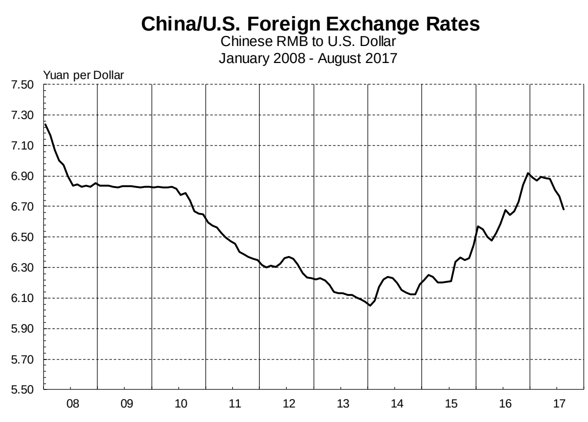
The major demand drivers impacting the Chinese Commercial Vehicle Market include:

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 ecommerce (+)
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.

The single largest impact in the last three quarters was the GB1589 regulation and related enforcement strategy changes. The primary result was to drive tractor sales (6X4) up, returning capacity taken away by weight limit reduction in the regulation, and to initiate an early replacement program exchanging 6X2 with 6X4 tractors. Unlike earlier regulations, GB1589 enforcement was delegated through five ministries, of which two have police power.

EXCHANGE RATE: The exchange rate between the Chinese Yuan (¥ or RMB) and the $US is shown in the graph below. From the middle of 2008 to spring 2010, the exchange rate remained at approximately ¥6.80 for each $US. By the end of January 2014, as reported by the Federal Reserve, the exchange rate had weakened to ¥6.05/USD. After oscillating upward the past three years, the exchange rate was relatively constant in 1H'17, at a ¥6.88/USD pace. The rate continued to fall after April, ending August at ¥6.68/USD.



CURRENT ECONOMIC OVERVIEW

Key Points:

China's GDP in Q2'17 grew by 6.9% y/y, exceeding expectations. This matches the surprising pace recorded in the first quarter of this year. For perspective, China's GDP held steady at 6.7% y/y in the first three quarters of 2016, before rising at a 6.8% y/y pace in Q4'16. China's economic growth in the 2015 to 2017 period was expected to slow from 6.9% y/y in 2015 to 6.7% y/y in 2016, then to 6.5%. Factors shaping the growth pace in Q2'17 included:

- Consumption was a source of positive momentum, accounting for more than 63% of the quarter's GDP growth.
- Regarding the quarter's investment activities, real estate investment maintained good momentum, while infrastructure and manufacturing investment both recorded slight improvement throughout the quarter. Overall, investment provided nearly 33% of Q2's GDP uptick.
- Foreign trade was little changed in Q2; net exports were still on the positive side of the ledger at nearly 4% expansion.
- Although on an overall decelerating trend, industrial added value grew around 7% y/y throughout 1H'17, buttressed by more emerging industry support, recovery of traditional industries, and growth recovery of corporate profits.

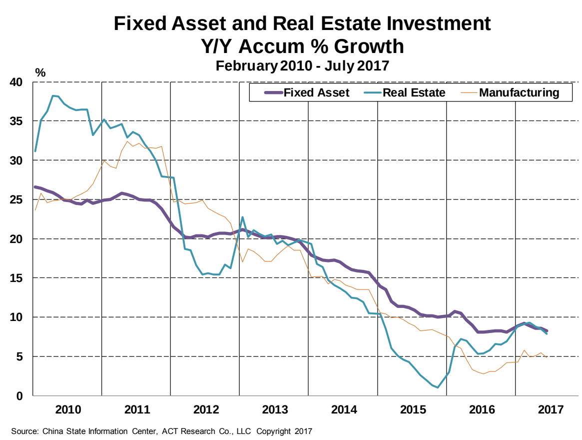
Results of the November U.S. elections introduced a wild card into the forecast picture. Mr. Trump's opposition to the Transpacific Partnership (TPP) and the implied negative for China trade brought a focus to the issue. Additionally, in recent weeks the escalation of tensions with North Korea has put U.S.-China bilateral trade on the table as a bargaining chip. In this forecast we continue our wait-and-see attitude, therefore we did not explicitly factor any trade curtailment into the analysis. However, we continue to monitor the situation.

Sector Review:

Investment continued positive in 2017's second quarter, little changed from Q1. Fixed asset investment in Q2'17 advanced about 9%, down 0.6% from Q1'17. Real estate, manufacturing, and infrastructure investment were all a tad softer than the previous quarter, but compared to the same period in 2016 were improved.

Real estate investment rose nearly 9% y/y in Q2, down just 0.6% from Q1, while still maintaining a high level of growth overall. Slowing in China's real estate investments were a result of tighter monetary policy, particularly in first and second-tier cities. Since Q4'16, more than 55 cities nationwide have issued a total of 160 local property control policies, including but not limited to those restricting residential and commercial housing investment. Restrictions were less confining in third and fourth-tier cities, where the populations are smaller, and it was these areas that bolstered real estate investment growth in Q2.

Manufacturing investment grew nearly 6% y/y in Q2'17, a 0.3% contraction from Q1, and more than 2% improved when compared to Q2'16. Price increases in upstream manufacturing served as one impetus to investment this quarter. After fighting overcapacity for some time, China's supply-side reform continues to



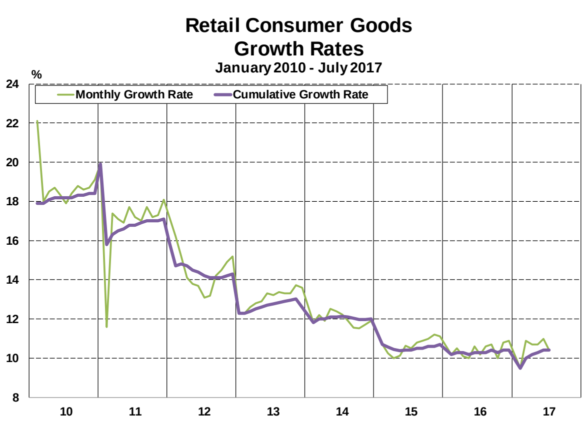
bear fruit. Traditionally industries have eliminated much of the overcapacity and are now investing in improved technology and equipment. Additionally, high-end manufacturers are gaining traction, amid recovering industrial confidence. That said, it is important to recognize that manufacturing remains at relatively low levels and supply-side reform is still ongoing.

Q2's infrastructure investment increased nearly 17% y/y, 2% below Q1's pace. Two rapidly growing project segments were environmental facilities and transportation. China has also started to implement a significant number of public-private partnerships, providing enough projects and capital to secure good momentum in this investment sector.

Consumption continues to exhibit steady growth. YTD spending on retail goods grew more than 10% in Q2, on par with the same pace during 2016, and a bit higher than the ytd pace in March.

China's domestic consumption in Q2 was buttressed by robust per-capita disposable income, which was nearly 13k yuan in 1H'17, or a nearly 9% increase when compared to 1H'16. After adjusting for inflation, the increase was a still-healthy 7.3%.

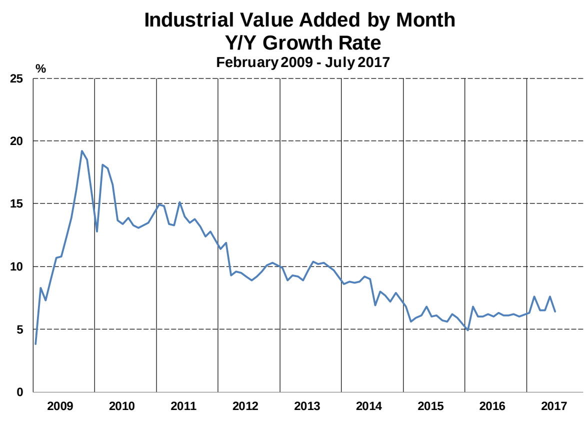
Consumer expenditures on transportation, education, healthcare, cultural/entertainment events, and healthcare grew rapidly in Q2, while spending on clothing, living goods, and services expanded at a slower pace.

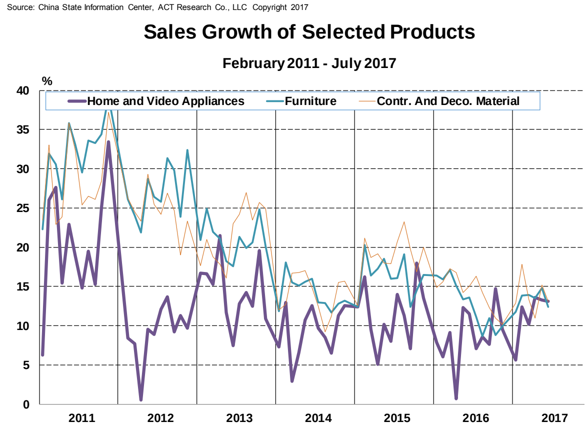


Sales of construction and housing-related items remained at elevated levels. Construction and decoration materials were up about 13% y/y, while furniture sales remained in double-digit expansion, around 12% y/y. Home and video appliance sales were also strong in Q2, up more than 13% y/y.

Foreign trade: China's foreign trade improved in Q2, but remains sluggish overall. China's trade surplus is still in positive territory, but slightly lower compared with the end of Q2'16.

After ending Q3'16 down 10%, the rate of change of exports improved to a slower decline of -6% by the end of December. Exports have been on the positive side of the ledger in all but one of 2017's first seven months, with June actually recording double-digit growth (11.3%). In addition to the implementation of a series of favorable foreign trade policies, including participation by One Belt-One Road countries, growth in activity in developed and emerging economies, such as the U.S., EU, Japan, Russia, and India were cited as boosting export growth.

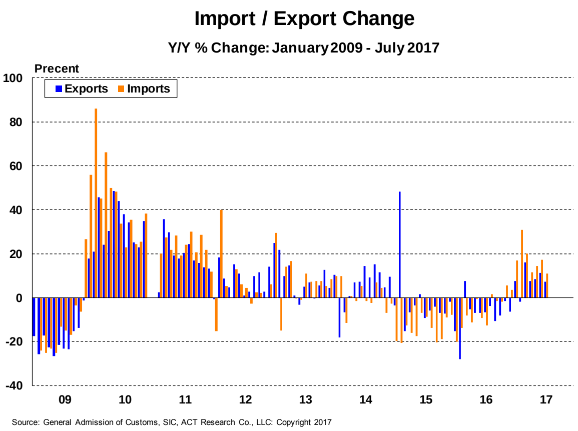


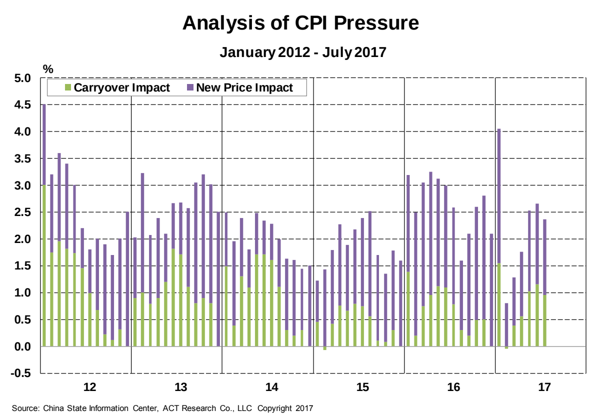


China's y/y import growth in Q2'17 was 12%, 15%, and 17%, respectively, on a monthly basis. Reasons cited for these results were an increase in bulk commodities, particularly iron ore, crude oil, and copper, as well as good general economic momentum.

China's trade surplus was USD 120.75 billion in Q2'17, an increase of $56.5 billion over Q1. The major cause of the surplus expansion was the export recovery in 2017's second three months.

Inflation: Prices as measured by the consumer price index (CPI) rose by 1.5% y/y in Q2, primarily driven by lower food prices. In 1H'17, food prices decreased by 2.1% y/y, the first contraction since 2010. Overall, CPI increased q/q compared to Q1 because some farm product prices, as well as some industrial products and services prices, expanded.





The following table provides a historical comparison.

CPI % change y/y

	2014	2015	2016	2017
Jan	2.5%	0.8%	1.8%	2.5%
Feb	1.9%	1.4%	2.3%	0.8%
Mar	2.3%	1.4%	2.3%	0.9%
Apr	1.8%	1.5%	2.3%	1.2%
May	2.5%	1.2%	2.0%	1.5%
June	2.3%	1.4%	1.9%	1.5%
July	2.3%	1.6%	1.8%	1.4%
Aug	2.0%	2.0%	1.3%	
Sept	1.6%	1.6%	1.9%	
Oct	1.6%	1.3%	2.1%	
Nov	1.4%	1.5%	2.3%	
Dec	1.5%	1.6%	2.1%	

Producer prices (PPI) have oscillated again. After hitting 7.8% y/y in February, PPI has fallen since hitting a trough bottom at 5.5% in May, June, and July. Prices are significantly higher than they were in the same seven-month period in the past three years. The generally large increase in PPI is being attributed to a substantial rise in the prices of production goods. PPI has maintained positive growth for nearly a year. The last time we saw PPI rise consistently, and at this pace, was at the end of 2011.

PPI % change y/y

	2014	2015	2016	2017
Jan	-1.6%	-4.3%	-5.3%	6.9%
Feb	-2.0%	-4.8%	-4.9%	7.8%
Mar	-2.3%	-4.6%	-4.3%	7.6%
Apr	-2.0%	-4.6%	-3.4%	6.4%
May	-1.4%	-4.6%	-2.8%	5.5%
June	-1.1%	-4.8%	-2.6%	5.5%
July	-0.9%	-5.4%	-1.7%	5.5%
Aug	-1.2%	-5.9%	-0.8%	
Sept	-1.8%	-5.9%	0.1%	
Oct	-2.2%	-5.9%	1.2%	
Nov	-2.7%	-5.9%	3.3%	
Dec	-3.3%	-5.9%	5.5%	

The fact that CPI and PPI have been deviating from each other for so long is noteworthy. It likely reflects the turnabout in prices for materials inputs (oil, coal, steel, copper, etc) from decline to escalation (PPI) and the bigger labor contribution from services to CPI, which tends to stabilize the CPI inflation measure.

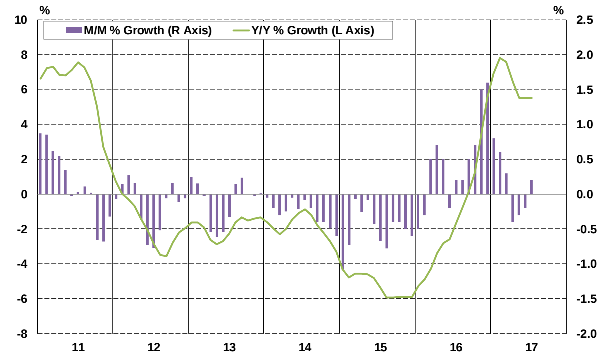
Monetary policy remained prudent, in neutral, during Q2'17. In Q2, newly added RMB loans reached 3.75 trillion yuan with a m/m decrease of 0.47 trillion yuan and a y/y increase of 0.83 billion yuan. Corporate loans continued to rebound in Q2, while medium and long-term residential loans delivered a softer performance, influenced by tightening credit for real estate purchases.

M2, at the end of Q2, rose by more than 9% y/y, 1.2% less than Q1. M1 rose by 15.0% y/y at the end of Q2, down 3.8% y/y from the previous quarter. The y/y growth difference between M1 and M2 continued to narrow, meaning that the amount of money entering loans and the real economy has increased. One of the major reasons for this was the advance of public-private partnership (PPP) infrastructure projects which attracted some private capital. Moreover, the recovery of corporate loans demonstrated that businesses were gradually stepping out of the "liquidity trap."

"Chinese-style liquidity trap" is a multi-pronged situation in which businesses are holding onto their money, taking a wait-and-see attitude rather than investing; liquid cash is being held (or trapped) instead of being circulated through the country's economy. For real estate companies, it's having excess capital from recent sales, large government deposits, and individuals holding cash, rather than saving or investing when interest rates decrease.

PPI Growth Rates

January 2011 - July 2017



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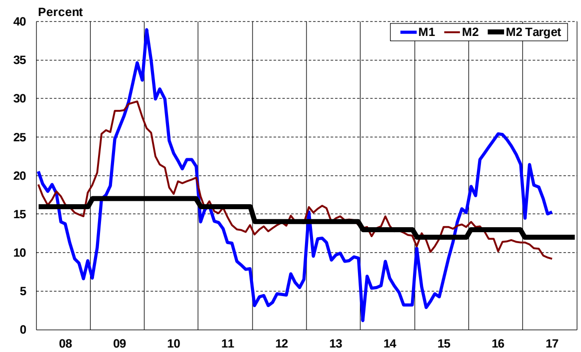
Money Supply

Y/Y % Change: January 2008 - July 2017



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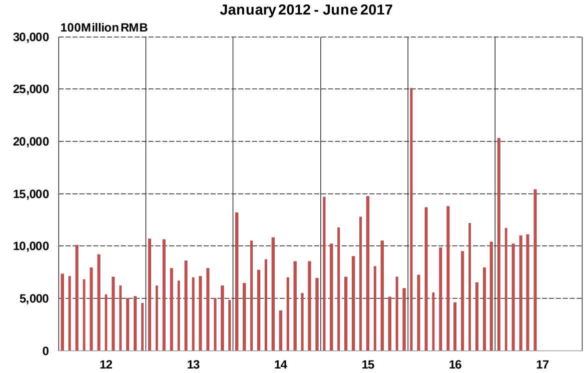
New Credit (100 million RMB)

January 2012 - June 2017



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SHORT-TERM FORECAST

Key Points:

China's economy remains in transition, with indicators mixed. GDP in Q3'17 is likely to grow by around 6.8% and the annual growth rate should be maintained at 6.8%, the highest annual GDP since financial crisis recovery.

China will hold its 19th National Congress during Q3, but with no change in leadership, the government is expected to maintain the current trend of economic momentum. Additionally, investment in fixed assets, including infrastructure, is forecast to accelerate, particularly when combined with PPP funds. Projects likely to benefit the most of these investments will be environmental and transportation related.

Real estate investment is also projected to sustain its current upward trajectory overall, although, regulations may cause a softening in larger municipalities. Additionally, China's exports are expected to continue their rebound amid a global economy that should continue to recover. Manufacturing is possibly the economic sector where more drag will be reported in the coming months, depending on the pace of industrial product prices, which have been on the decline.

Sector Review:

Investment is the primary driver for economic development. With few signs that investment could reverse direction, a substantial rebound in overall investment growth rates is highly likely in the next three months.

- Real estate investment, a driving force for China's economy involving 40 different industries, will continue to face challenges. Real estate investment grew in Q1, but slowed in Q2, as expected, due to a series of purchase restrictions imposed across the country. The regional impact will not be uniform. Not all Chinese provinces have developed at the same speed; therefore, there are some opportunities for housing investment in areas of Eastern, Western, and Central China. Because of China's declining population, the need for housing has taken a downturn. This, in turn, implies reduced funding in the real estate investments arena. This will, of course, be countered by the fact that China is still in the urbanization phase of its development, meaning that the slowing is relative to an already high demand.
- Manufacturing investment took a surprising upturn in Q1, as the transformation from traditional manufacturing to more high-tech production seemed to accelerate. This high level of investment was maintained in Q2. As China's manufacturing improves the quality of its processes and final products, domestic and international demand for China-made products will grow. Of course, investment in this portion of the sector will be offset by the reduction in investment in energy-intense and environmentally unfriendly manufacturing facilities. At this point, we see two factors impacting China's manufacturing investment: the primary factor being an increase in global raw material prices, and the need for restocking inventory as a distant second.
- Infrastructure investment is being hailed as China's saving-grace segment. China's government has introduced a series of policies for the coordinated development of regional economies, such as the Xiongan New Area, Guangdong-Hong Kong-Macao Large Bay Area, Free Trade Zones (FTZs), and One Belt and One Road (Belt and Road). These policy moves have boosted demand for infrastructure investment across the country. At the same time, the scale of PPPs is expanding, and more projects are expected to be implemented in 2017.

Consumption is forecast to rise moderately in the next two quarters, supported by improving confidence in China's economy throughout 2017. The four factors expected to impact China's domestic consumption in the near-term include:

1. A stable macro-economy, coupled with an increase in market confidence.
2. Continued growth of online retail sales, particularly aided by new technologies like mobile pay.
3. Q3's warmer weather, which will increase demand for electric appliances, cool beverages and utilities (electricity) demand.
4. Release of pent-up demand for passenger vehicles (private automobiles), following new regulations that resulted in slowing auto sales in 1H'17.

Foreign Trade: Overall, China's foreign trade is expected to grow moderately in the next three months, depending on how things unfold on the global stage. Major global economies are forecast to continue their recoveries, which is favorable to China's export business. To-date, China's 100-day trade plan with the US is seen as a positive, cooperative, and mutually beneficial effort. However, there are still uncertainties, given trade friction with Korea and India. The exchange rate of the RMB has surprised analysts and traders with unexpected strength in Q3'17, which may restrict some export business.

Regarding imports, prices of global bulk goods are forecast to decline, causing a slowdown in import expansion. The RMB exchange rate would be favorable to China's import business by increasing the currency's buying power.

Inflation: CPI and PPI are expected to move in opposite directions during the coming quarter. CPI is forecast to grow slowly and moderately throughout 2017, while PPI increases will slow.

CPI in China is linked, in large part, to fluctuations in the price of pork and vegetables. With hot weather and regional heavy rains, vegetable prices in particular are expected to result in a higher Q3 CPI. Moreover, Q3 CPI is expected to grow from an uptick in housing rent and transportation as a result of summer's last hooray of vacationing.

PPI, on the other hand, will be impacted by the supply-demand relationship, tightening control on real estate, and high base-year comparisons. It is believed that PPI hit its most recent peak in Q1, gradually easing is anticipated for the remainder of 2017.

Monetary policy is expected to remain steady in the next three months; it will be prudent with little further easing or tightening. If needed, however, policy will be adjusted to ensure China's economy stays on target through the country's current structural transition, particularly in light of unpredictable emerging market demand of exports, restructuring of traditional industries, and 2016's soaring real estate market prices. Risk prevention and structural adjustments will still be the focus for China's central bank.

China's central bank may strengthen the role of its Macro Prudential Assessment (MPA) option, making sure that financial institutions' attempts to increase profits aren't creating financial risks for the country's economy. The central bank could also keep raising short-term interest rates to remove liquidity from the market. The central bank's efforts in Q3 will be focused on strengthening structural credit management and open market operations.

MACROECONOMIC ANALYSIS TO 2021

In the next five years, China's economic growth pattern is expected to resemble an L, meaning the country is at the bottom of a high expansion period, but will be able to maintain steady growth, neither gaining nor losing momentum in aggregate. Some refer to this as entering a "new normal" phase of development. Economic growth is expected to return an average annual increase of 6.5% throughout the next five-year period. It is anticipated that China's central government will closely monitor economic developments and take actions to ensure that any slowdown does not worsen, but instead maintains a steady growth level.

Reasons for China's economic slowing include:

- Population demographics: China's working age population peaked in 2010, and at that time, the dependency ratio was around 34%. The dependency ratio is the ratio of the population of children and elderly compared to that of the labor force. By 2015, this ratio had increased to more than 39%, meaning that fewer people were considered part of the labor force and more people were part of the dependent class of children and/or elderly. This has lowered the savings rate because those leaving the workforce and entering the latter stages of life are spending their savings. Not surprisingly, the savings rate in China was at its peak in 2010 when the labor force was at its highest and the dependency ratio was relatively low. While China has modified its one-child policy, the current trend is not expected to reverse any time soon.
- Capital investment: Over the past 20 years, the industrial capacity utilization rate has fallen, and with it, return on investment. Before 2013, investment in China's manufacturing sector was relatively large, and return on those investments was moving upward. Recent data, however, show both investment and returns declining. While this trend may moderate, a return to pre-2013 investment is not expected.
- Supply-side reform: China's manufacturing sector, in particular, has been plagued with overcapacity for several years, but this is being addressed. Though improvements have been noted, this is not an issue that will be solved quickly. In the meantime, supply-side reform is expected to exert drag on China's economy.

Positive factors expected to support China's economic stability going forward:

- Human capital: While China's labor force is declining in numbers, its quality is expected to improve as investment in education is on the rise. In other words, it is expected that Chinese workers will be more productive; by working smarter, they boost output per hour. China's expenditure on public education is only 1/6 of the U.S. and the higher education gross enrollment rate in China is only 1/3 of the United States, meaning the country has room to grow its "human capital."
- Technological progress: Independent innovation is needed to transform China's assets of scientific research and financial wherewithal into leading-edge science and technological production. China also needs to pivot away from its past success of courting labor-intensive manufacturing and now pursue the on-shoring of technologically advanced manufacturing. China has the potential for future innovation, but it will require increase of research and development investment. China's current expenditure on R&D is 25% of the amount spent in the U.S.
- Economic restructuring: China's central government has three additional economic targets in sight.
  1. A different balance between investment and consumption needs to happen. To-date the primary driver of economic growth has been government spending on infrastructure projects and investment in traditional manufacturing. For China to move to the next step in its sustainable economic development, more market-driven consumption will be needed; this rebalancing is underway.

2. Manufacturing is the cornerstone of economic development, especially for a country with a large population. That said, real estate investment has been diverting funds from industrial investment in the past several years. The change in China's real estate policies is expected to drive capital investment back to the manufacturing sector.
3. China has been successful in developing population growth and income in first- and second-tier cities, policies are now expected to shift toward reducing the regional gap between those living in first- and second-tier cities and those living and working in the country's rural regions.

A more sustainable foundation for future growth during the 13th Five-Year Plan period (2016-2020) is based on economic structural adjustments and a deepening of supply-demand reform, as well as on decisions made during the 18th Party Congress.

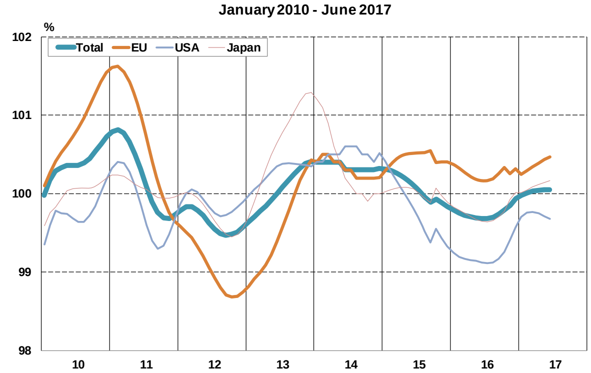
Interest Rate of One-year Loan (%)

January 2008 - June 2017

Source: China State Information Center, ACT Research Co., LLC Copyright 2017

OECD Leading Indicators

January 2010 - June 2017



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TRANSPORTATION ENVIRONMENT

Overview

Factors influencing Q2 transportation demand:

- The GB1589 regulation and its enforcement, as well as China's NEV policy shift, continued to have an impact on commercial vehicle demand. The sale of heavy duty trucks remained on an upward track, while bus purchases are declining.
- The growth rate of urban fixed asset investment fell slightly, as did real estate investment. Infrastructure investment remained on its growth trajectory, albeit at a slightly slower pace. The number of new projects, overall, rose in June.
- Fiscal revenues and expenditures both slowed in Q2.
- Growth rates for road freight and turnover volumes continued to increase.
- Road passenger volume and turnover growth rates remained sub-par. Transport needs continued to be met through more personal vehicles or other modes of travel.
- Domestic demand for passenger vehicles slowed, resulting from less accommodative policies that may have created a pre-buy at the end of 2016.

MARKET ENVIRONMENT

Construction Market

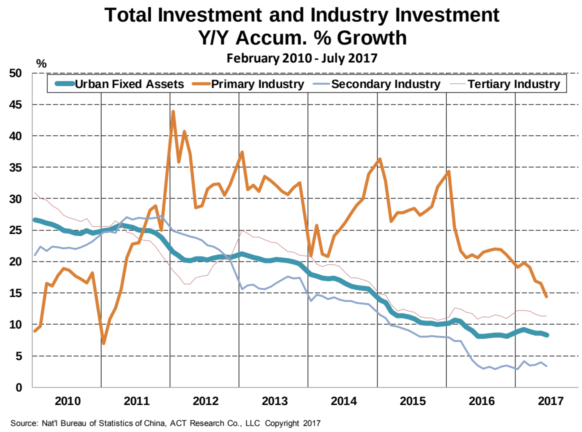
Urban fixed asset investment, while on a slowing trend, lost another percentage point when compared to the end of Q1'17 and the end of Q2'16. It ended June up 8.6% y/y, compared to nearly 9% growth reported in the previous June.

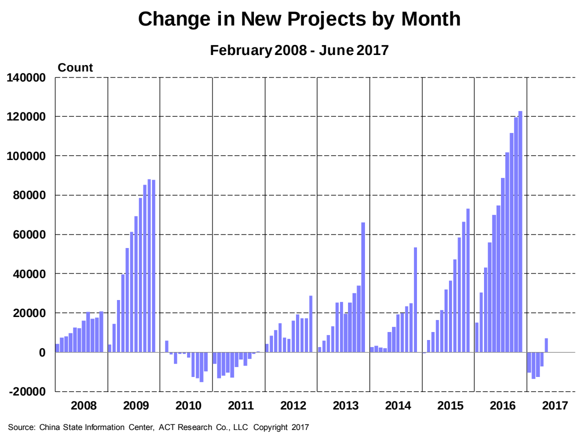
Primary industry investment through June increased approximately 17%, compared to nearly 21% growth in the second quarter of 2016. Secondary industry investment rose 4% at the end of June, down about a half percentage point compared to the same time one year ago. Tertiary investment reached more than 12% in June, slightly down from the June 2016 level of 11.7%. As a result of regulatory policies, tightening mortgage credit for would-be purchasers in first- and second-tier cities, real estate investment in those areas dropped. This was, however, offset by more accommodative real estate loan policies in smaller third- and fourth-tier cities.

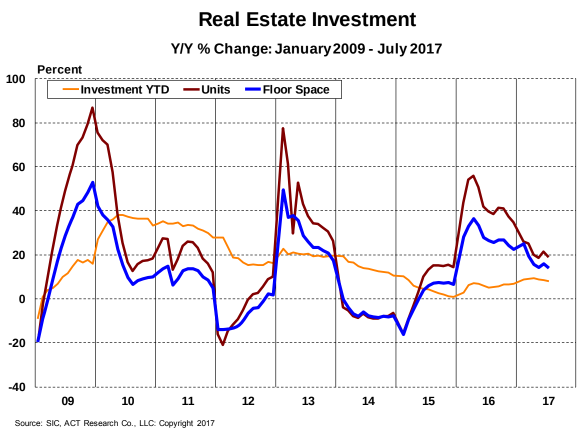
For clarification, production of raw materials and basic foods/agriculture make up primary industries, while secondary industries consist of finished goods manufacturing, processing, and construction. Tertiary industries are the economy's services sector, such as retail and wholesale distribution, entertainment, restaurants, banking, health care, and law. The government's goal is to increase domestic demand in both the secondary and tertiary categories; initial growth in the tertiary industries would inherently be domestically driven, but eventually could have international influence.

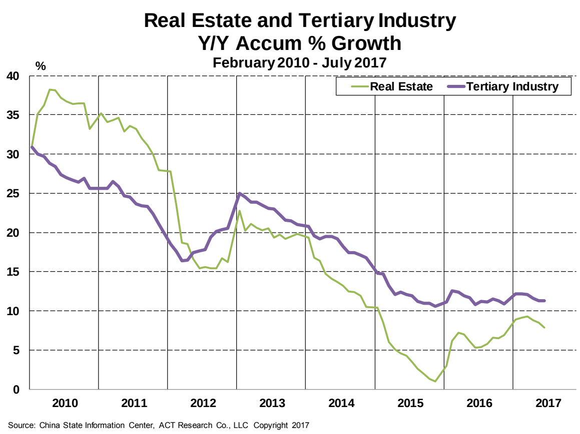
After spending five consecutive months in negative y/y territory, the ytd y/y growth of both planned total investment of new projects and the amount of accumulative new projects returned to the positive side of the ledger in June. This compared to consistent double-digit expansion recorded from 2011 to 2016. The two primary reasons cited for this sluggishness were the high comparison base rate of real estate investment last year and the tight mortgage policies implemented this year. Additionally, China's central government investments continued their descent in Q2, while local government investments were high, offering a counter-balance.

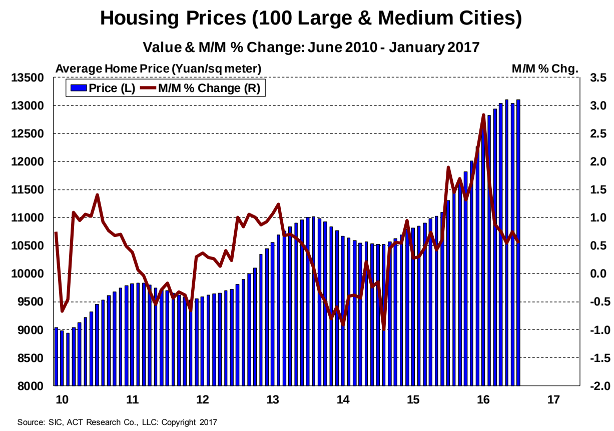
We predict that in the next quarter growth of new projects and government investment will improve in Q3. There are essentially three reasons for this belief:











1. China will hold its 19th CPC National Congress in Q3, and with no change in leadership, the government is expected to maintain high levels of capital investments.
2. The country's leaders continue to invest in infrastructure for environmental facilities and transportation. This will be accelerated by the encouragement of public-private partnerships.
3. Real estate investment in third-tier cities will support growth in this segment, and is expected to be more than sufficient to counteract the drag by tightened real estate lending policies in first- and second-tier cities.

Real Estate

After relatively hot investment earlier this year, China's real estate investment slowed in Q2 from its April peak, as expected. Most of the drop came from tightened regulations in first- and second-tier cities. This was, however, countered by increasing investment in real estate in the smaller communities. It is important to realize that China's real estate market is just like that in any other developed country, in that not all portions of the country develop the same and not all portions of the country have the same population needs for housing at the same time. It is additionally important to note that because of an approximately nine-month lag between the time sales fall and investment is curtailed, the expected investment easing likely will not be a significant factor for another quarter or two. In Q3'17, it is predicted that the growth rate of real estate investment will continue to slow.

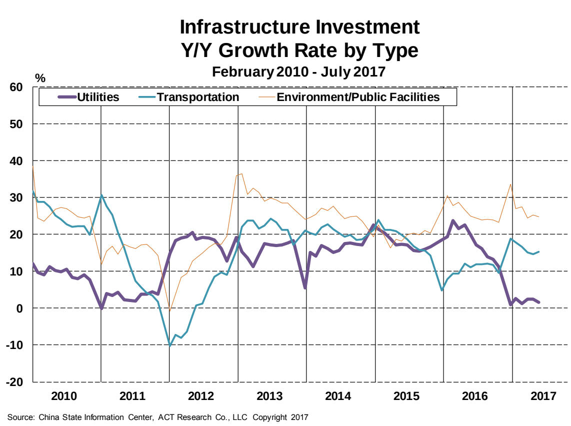
At the end of 2016, the Central Economic Work Conference positioned housing "to live in and not to speculate on." As a result, controls on real estate have been tightened to stabilize prices, reduce inventory, and suppress speculation. Some of the tightening is coming from financial institutions; in several cities, interest rates for mortgages have risen by 10%-15%. Additionally, China has a very complex system of mortgage policies, depending on the city in which one is purchasing a home, whether the purchase is for a first home or a second home, and a variety of other factors. Against the background of tightening regulatory policies and prudent monetary policy, real estate sales will continue their downward trajectory. Investment will gradually shift from real estate investment to other types of capital investment.

A reminder of how this segment made it to where it is today: after considerable cooling in the latter part of 2015, real estate investment throughout 2016 bounced between 5% and 7%. Access to capital was tightened in Q2'16, and real estate investment declined accordingly. Additionally, some cities that had relaxed their housing regulations opted to reinstate them in Q2, adding to the real estate softening. Q3'16 was also impacted by anticipation of an RMB depreciation, some panic buying, and a return of some speculative demand, as well as a reaction to a shortage of high-quality assets.

Upticks in housing are good for transportation, as furniture and appliances and the like will be needed for newly purchased homes. The longer-term lack of investment will mean a drag as construction materials and household goods won't need to be transported.

Infrastructure Construction

China's infrastructure construction includes investments in rail and road transport, as well as electricity, gas and water production/supply, water conservancy, and management of environmental and public facilities. Investment in these industries has been weak 1H'17, primarily due to a high base-year comparison. Growth for road transport, electricity, gas and water, and water conservancy, environment and public facilities all recorded double-digit growth in 1H'16, while rail investment teetered near the 9% mark last year. Road transport investment was the one segment this year that fared better than last, nearly double the 2016 growth rates.



Railway transport investment grew 4% in April and 3% in May 2017, compared to the same two months in 2016 when a respective 4% and 12% growth was recorded. The June comparison is even worse; June 2017 was up just 2%, while June 2016 recorded a 9% investment increase.

Road transport investment reached almost 25% in April, 23% in May and June, and 24% in July 2017. This compares to the same months in 2016 when road investment was up 10%, 11%, 14% and 14%, respectively.

The increases are being attributed to government encouragement of public-private partnerships, as well as direct financial support. Many of the projects that began in Q1'17 were approved by the NDRC in Q4'16, when project authorizations peaked. Recently, the NDCR has seen a drop-off in infrastructure project requests, which could mean slower growth rates in future quarters. That said, it is important to understand that in China projects may be approved, but not funded until a future date when economic stimulus is needed. Therefore, a non-specific lag can exist between when a project is approved by the NDRC and when funding is provided and the project begins. Because there has been a drop-off in approved projects this year, the potential for slowdown of actual project development is a real consideration for the future.

For the heavy commercial vehicle market, improved infrastructure spending could generate support for straight truck demand over tractors; much of this work would be done at the local level. However, if our expectation of stable infrastructure investment holds true, then straight truck demand will likely be based more on replacement than expansion need.

Central and Local Government Investment

While fiscal revenue increased in Q2, fiscal expenditure held steady. The former up 10% y/y in May, June and July, with the latter up 15% in May and July, recording a 16% y/y increase in June.

China's public revenue was RMB 9.4 trillion in 1H'17, up 10% y/y. The central fiscal revenue was RMB 4.4 trillion yuan, a 10% y/y increase, while the local fiscal revenue was RMB 5.0 trillion yuan, up 10% y/y. Tax revenue was RMB 8.0 trillion yuan, nearly an 11% y/y uptick, while nontax revenue, at RMB 1.4 trillion yuan, rose more than 4% on a year-over-year basis. Although slowing compared to last year's high base comparison, the growth of fiscal revenue in Q2 was a combination of multiple factors, including a rise in industrial prices (industrial VAT) which replaces the previous business tax, a substantial increase in corporate profits (corporate income tax), growth in resident income (personal income tax), and improvement in import prices and volume (income VAT and tariff).

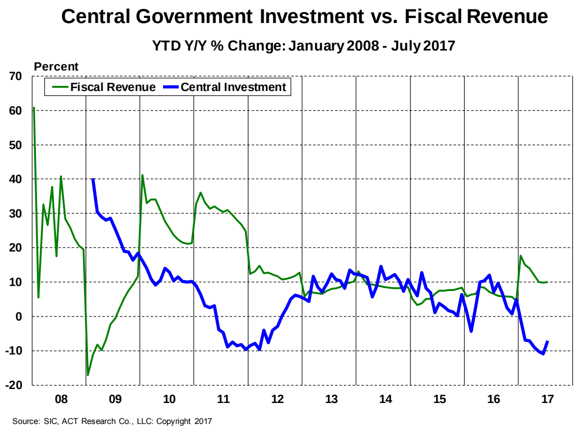
Public expenditure reached RMB 10.3 trillion yuan in1H'17, up 16% y/y. The central fiscal expenditure was RMB 1.4 trillion yuan, a growth of 10% y/y, while local expenditure reached RMB 8.9 trillion yuan, up 17% y/y. Expenditure on science and technology, social security and health care increased at a fast pace.

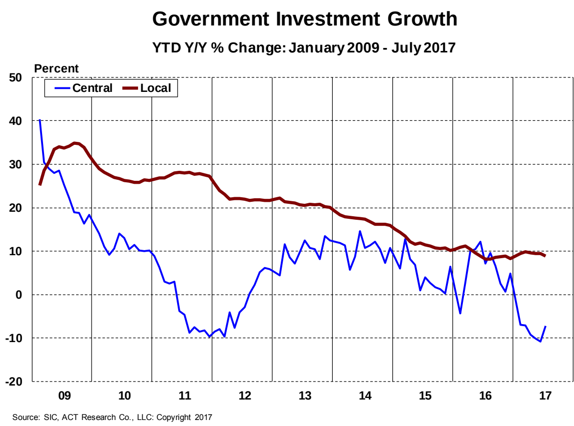
The growth rate of fiscal revenue is expected to rise slightly and expenditure will maintain the same level of expansion in Q3'17. In terms of revenue, the switch from business tax to VAT is now a year old, meaning the negative impact is subsiding. With the economy on solid footing, presently growing beyond expectations, corporate taxes should see improvement. Regarding fiscal spending, positive fiscal policies are anticipated through the remainder of 2017, and the trade deficit is forecast to expand moderately. That said, we've already seen a rise in expenditures this year, so the final two quarters should be able to maintain the current pace.

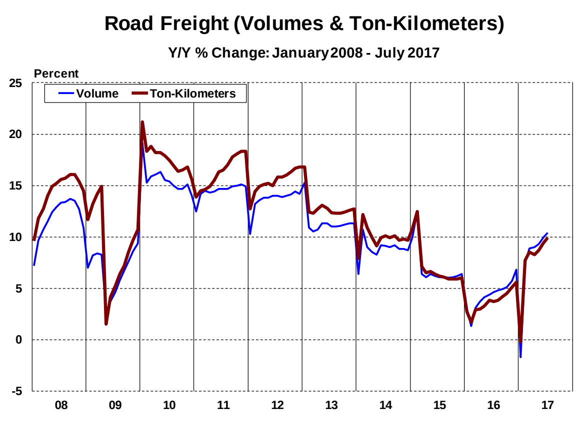
ROAD FREIGHT MARKET

Growth rates of road freight volume and turnover both rose in Q2 on a q/q and y/y basis, compared to a low 2016 base. Overall, the growth rates are near historically moderate levels. The quarter's increase is being attributed to the country's strong economy in 2017's second quarter, as well as a rebound in freight demand to move bulk commodities.

Road freight demand in China includes movement of consumer goods and production materials. In Q3, an expected slowdown in both will mean less road freight demand in the next three months. This oscillation will be driven by a slowdown in real estate investment, particularly in first and second-tier cities, and an industrial







sector that is forecast to have hit a peak, meaning less activity in that sector as well.

On the other hand, it is important to remember that as e-tailing increases, so does the need for the transportation of these consumer goods to the purchasers. Consumption alone, however, is not expected to be enough to counter the drag from decreased real estate and manufacturing freight, in general. That said, Q4 should see an uptick in online shopping with the sales surrounding the double-11 and double-12 sales events.

Longer-term, road transportation will be negatively impacted by the factors of modal shift, meaning freight continues to be offloaded from road transport to rail and airline movement. Improved efficiency and logistics will also dampen long-term road transport demand.

Bulk Commodities

Q2 bulk commodities, particularly those related to construction, like iron ore and steel, saw an increase. Demand for cement fell, while energy-related markets were able to maintain their Q1 growth rates. In Q1, coal output returned to the positive side of the ledger, and in Q2 coal output recorded a substantial increase.

Looking forward, transport demand of bulk commodities related to construction and energy production are expected to continue their long-term trends, showing some see-saw movements but in general showing improvement.

Due to regulatory impacts, the pace of real estate construction is expected to slow and investment in that sector to gradually decline, while infrastructure development funded by government sources will grow. It is important to remember, though, that most real estate investment policies will only have a negative impact in larger cities; overall real estate investment will not dip dramatically because policies in smaller areas, third and fourth-tier cities, is less restrictive.

Infrastructure investment via public-private partnerships, however, with funds diverted from real estate in first and second-tier cities, may see an uptick, resulting in the overall investment in infrastrucutre and the need for those related commodities to remain at relatively high levels.

Regarding the energy market, a government work report in March set the goal of de-capacity to "reducing coal production capacity by more than 150 million tons and eliminating, stopping, and slowing thermal power generation capacity by more than 50 million kilowatts so as to make room for clean energy." Of course, Q2 is part of a season of weak energy demand, and considering the low comparison base last year and lower coal de-capacity goal (2016 goal was 250 million tons while a reduction of 290 million tons was achieved), the growth rate of energy commodities will remain positive. That said, it is unlikely for the growth rate of energy-related commodities to continue this growth plan in 2H'17.

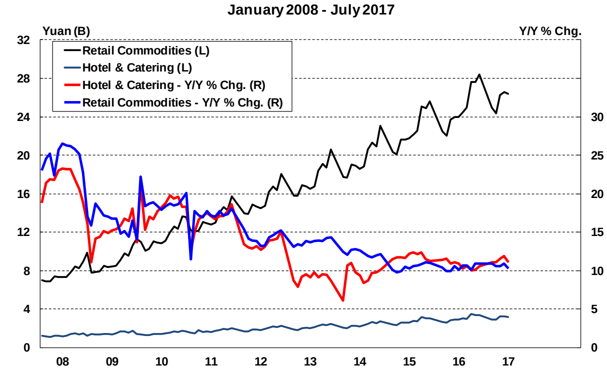
For reference, it is estimated that real estate represents approximately 50% of China's total construction market, while government-funded infrastructure is about 40%.

Consumer Goods

Domestic consumption in Q2 continued to grow, up 10%-plus in each month this year, and on par with the same time last year. The spending habits of Chinese consumers continues to rise, buttressed by an increase in per-capita disposable income. In 1H'17, per-capita disposable income was 12,932 yuan, up nearly 9% y/y nominally. Adjusted for inflation, this growth becomes more than 7%.

Consumer Related Spending

January 2008 - July 2017



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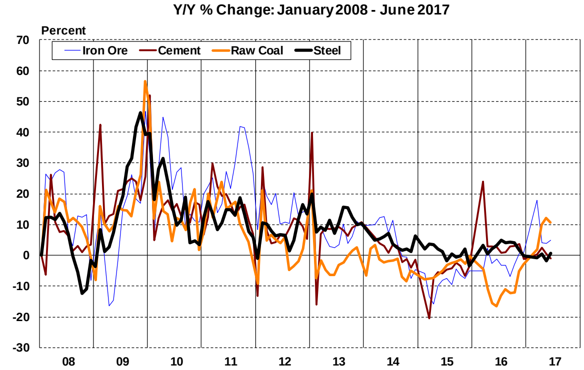
Output of Bulk Commodities

Y/Y % Change: January 2008 - June 2017



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Transport demand for consumer goods is forecast to continue on its upward path, impacted by the following four considerations:

1. Market confidence is being enhanced by the ongoing stability in China's domestic economy, as well as the recovery in global markets. This is expected to promote a rise in Q3 consumption.
2. Online shopping, and the Chinese consumers' thirst for higher quality products, will sustain the sales growth momentum currently occuring.
3. Q3's rising thermometer will translate to a rise in demand for electrical appliances and cool beverages during those three months, also a support to consumer spending increases.
4. We anticipate that the negative impact of auto pre-buys caused by the change in tax and NEV policies will taper in Q3, meaning a stabilization of that market with, perhaps, a beginning recovery. NEV purchases in first-tier cities, in particular, are expected to show more growth than in recent quarters.

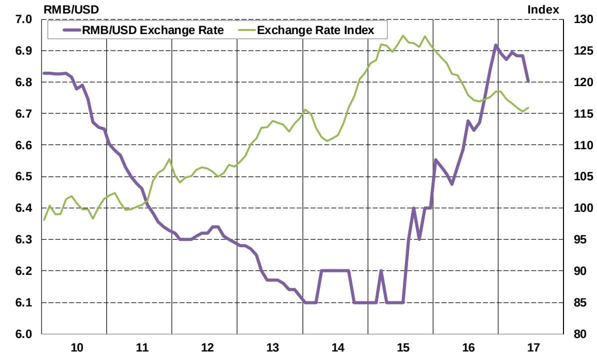
Foreign Trade Goods

China's foreign trade situation saw another uptick in Q2, as both imports and exports improved. Imports throughout Q2 were in double-digit growth territory, where they have been since the beginning of 2017. Exports also spent all three months of Q2 in positive territory, but at much slower paces, averaging 9%. Overall, the foreign trade uptick is being credited to simultaneous strength in domestic demand and recovery in international markets. Exports were buttressed by improving PMI in developed and emerging countries, while imports were driven upward by increased demand for some bulk commodities, including iron ore, crude oil, and copper.

Transport demand of foreign trade goods is expected to grow in the next quarter. In general, the global economic recovery is forecast to continue, and this period also includes the 100-day cooperative plan between China and the US. Imports next quarter are expected to be positively impacted by maintenance of the RMB exchange rate and a decline in global bulk commodities.

RMB Exchange Rate

January 2010 - June 2017



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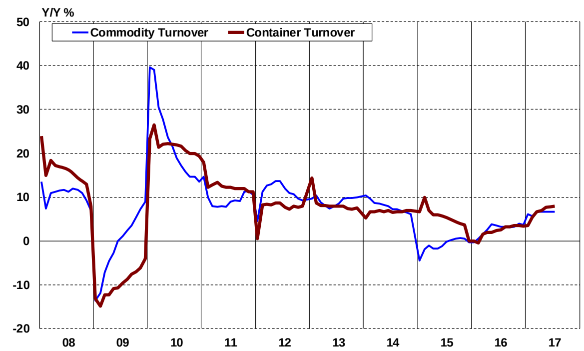
Foreign Trade Metrics

Y/Y % Change: January 2008 - July 2017



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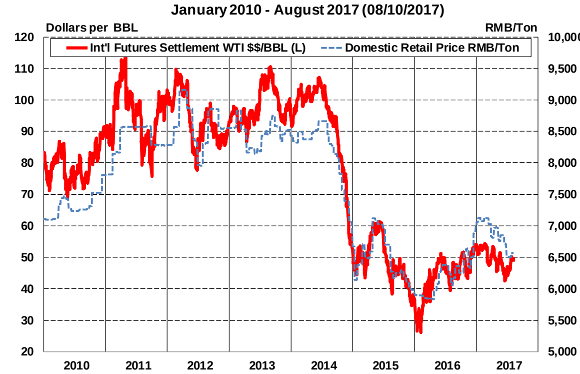
International and Domestic Oil Prices

January 2010 - August 2017 (08/10/2017)



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Oil prices

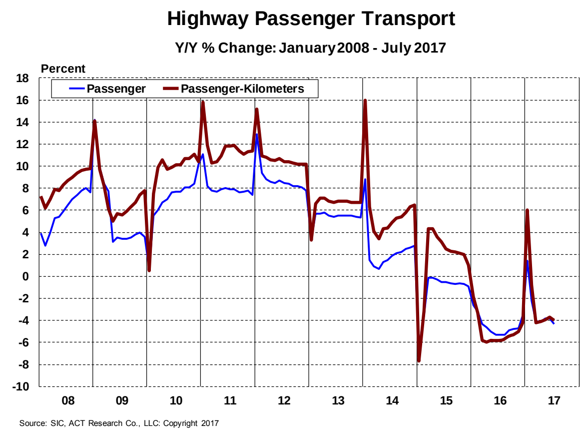
Although still relatively low, international oil prices have been fluctuating in a narrow band for quite some time. Most of Q2 was spent with prices on the lower end of the band, primarily due to OPEC attempts to rein-in production by member states that was countered by U.S. shale production. In short, crude oil output continued to rise.

Oil prices are expected to decrease slightly in Q3'17, as it seems unlikely that crude oil production will continue to grow. That said, China, as the world's second largest crude oil consumer, expects economic growth to slow in Q3, meaning supply is forecast to outpace Chinese demand in the coming three months.

PASSENGER TRANSPORT MARKET

In Q2'17, road passenger volume and road passenger turnover volume decreased at a slower rate than in the previous quarter, an overall improvement. Travel willingness for business and for pleasure was healthy in Q2, as consumer confidence rose and business confidence, albeit still at a high level, declined from previous quarter levels. This was supported by a pickup in SOE profits, as well as a recovery in private sector business profits.

In Q3, road passenger volume and road passenger turnover volume are estimated to maintain current momentum. In terms of short-term factors, high temperatures and heavy rain will reduce the number of people traveling in Q3'17. Regarding long-term factors, the popularity of private cars, extension of city bus lines, continuously growing high-speed rail traffic mileage and price drop of civil aviation make potential passengers of highway passenger transportation turn to other transport modes. In short, China's residents are more confident and their willingness to travel is rising, but they are choosing air and private vehicle travel rather than highway transportation, meaning the industry continues to fall behind that of these alternate travel modes. Besides these factors, travel willingness is expected to decline as residents' income growth slows, and the need to travel for China's "floating population" will drop as development occurs in smaller communities and policies are implemented to control the population of larger cities. (Floating population: Chinese citizens are registered in their home towns, but have left their home towns in the past to find work elsewhere in the country – a sort of undocumented domestic alien. This required transportation to the new workplace and back home as needed.) With the decline of the floating population, demand caused by this reason to travel will no longer be necessary.



PASSENGER VEHICLE MARKET

Growth in the personal vehicle market will also impact demand for passenger transport vehicles. This will, to some extent, reduce long-term potential demand for transit buses and coaches. Improved economic conditions and a higher quality of life generate increased desire for the flexibility provided by independent travel; private cars are being used more frequently. In Q2'17, domestic demand for PV (domestic demand = domestic wholesale volume + import volume – export volume) totaled 5 million, down 0.7% on a y/y basis, but a more severe drop when compared to the nearly 6% y/y increase recorded in Q1'17. In fact, this is the first time the PV market has returned a y/y contraction since 2008.

Four reasons cited for this decline included:

1. The auto tax reductions in late 2016 created a pre-buy, naturally dampening auto sales at the beginning of 2017.
2. New policies regarding on-line hailing, customer-to-customer transportation, resulted in decreased demand of personal vehicles as companies and entrepreneurs take advantage of the potential business opportunity.
3. Another policy impact slowing the PV market is the stricter regulations for non-native people to obtain a license to operate a vehicle in China.
4. And in terms of the macro economy, the rapid growth of PPI improved profits for upstream industries significantly. In addition, financial regulations led to increased capital cost and rapid growth of corporate interest expenses, which were unfavorable for demand.

The Q3'17 PV market is forecast for a slight increase. The impact of last year's auto tax reductions are coming to an end, supporting an uptick next quarter. Additionally, lower fuel prices and competitive promotions are expected to provide tailwinds to Q3 demand.

One long-term development being watched closely that has the potential to greatly impact this market is the transition from traditionally fueled automobiles to those powered by electric or plug-in hybrids. According to a recent Reuters Beijing report, "To combat air pollution and close a competitive gap between its newer domestic automakers and their global rivals, China has set goals for electric and plug-in hybrid cars to make up at least a fifth of Chinese auto sales by 2025." The article also noted that the UK and France have already set 2040 as the end of traditionally-fueled PVs in those countries. And according to a source quoted in the article, "Under the latest proposals, 8% of automakers'' sales would have to be battery electric or plug-in hybrid models by next year, rising to 10% in 2019, and 12% in 2020, but the rules would not be enforced until 2019, a year later than initially planned."

INDUSTRIAL POLICIES

Policies affecting sales and market structure of heavy duty commercial vehicles this quarter are the same three that have been impacting China's CV demand for the past few quarters; they include GB1589 and overload enforcement, as well as environmental protection and the adjustment of NEV policies. The results were continued improvement in truck sales, but a dramatic decline in bus demand.

It is important to note that much like the U.S., NEVs are alternative fueled vehicles, including electric vehicles. However, this category does not include natural gas vehicles. When a reference is made to non-diesel vehicles, it includes NEVs (electric) and natural gas fueled vehicles.

GB1589 and overload control was implemented in 2016, but enforcement continues.

In May, the General Office of the Ministry of Transport issued a notice on the implementation of *Regulations on Highway Management of Overloaded Vehicle*. The notice further stresses the need to strictly implement the standards of overload. Local transport departments are being required to ensure the uniformity of the standards across the country, and resolutely end arbitrary modifications of the standards. Highway management institutions are being charged with strictly enforcing the punishment standards in a consistent and uniform manner. This document aims to prevent local governments from implementing their own standards (which are usually loose). The impact of overload control implemented since last September ended in April. That's why the Ministry of Transport issued this document in May, to strengthen implementation. The impact of overload control is expected to continue through Q3, when the special enforcement policy is set to expire. The regulation (GB 1589) and its general enforcement will remain in force.

To be specific, in the short term, the policy will shift tractor demand from 6x2 to 6x4 configurations, translating to huge orders for the latter and stagnating demand for the former. Full details of GB1589 and special project of overloading regulation were included in the last two quarterly issues of this publication.

The main results of GB1589 and its associated regulations and enforcements were increased freight rates as a result of reduced capacity of the current fleets, and improved transport efficiency; all of which will promote CV sales short-term, but also cause changes in replacement demand farther down the road. The increased freight rates are also expected to take licensed CV drivers off the sidelines and get them behind the wheels again, but this time in newer vehicles. As a result, the initial tightened capacity will eventually be eased.

According to SIC estimates, the total impact of GB1589 will be 210,000 units (70,000 in 2016 and 140,000 in 2017).

Environmental protection continues to be a concern in China. Two new policies related to transportation include:

- *National Standard V Emission Standards:* Beginning July 1, 2017, all heavy-duty diesel vehicles that are manufactured, imported, sold, and registered must comply with NSV emission standards. SIC estimates that pre-buy will be limited, mainly due to smaller equipment upcharge for the emission-compliant vehicles than has occurred in past emission regulation cycles. Additionally, improved environmental awareness and more attention to residual vehicle values are factors that cause us to believe there will be fewer operators seeing to pre-buy before the July 1 deadline.

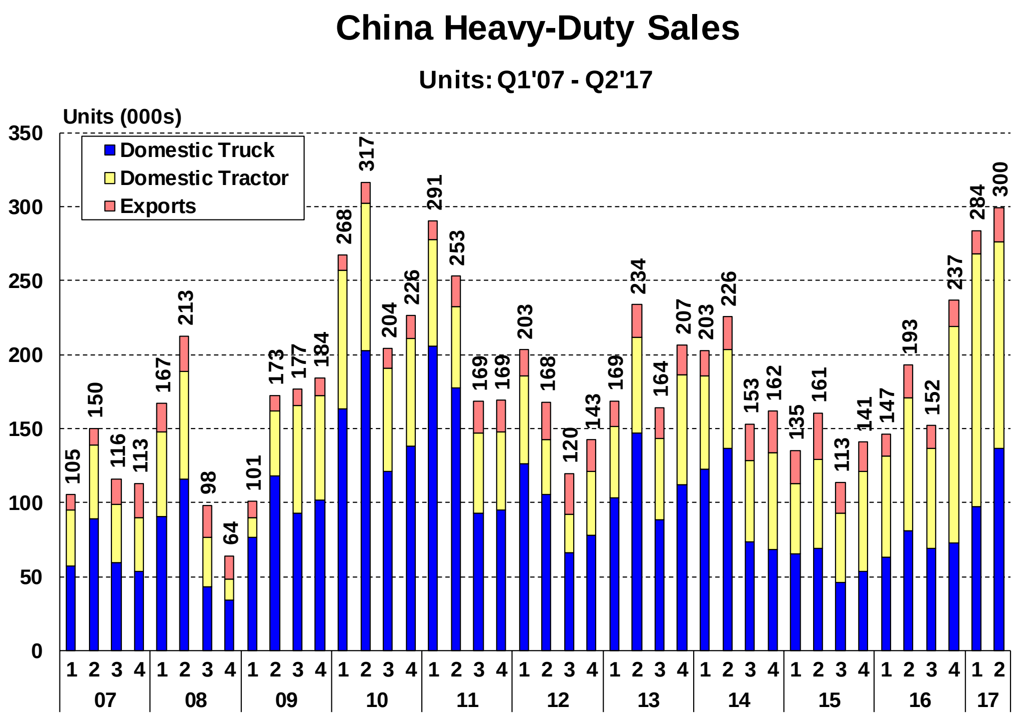
- *2017 Battle to Safeguard Blue Sky:*
  - First, *Work Plan of Air Pollution Control* in 2017 in Beijing-Tianjin-Hebei and surrounding area. By the end of July, the Tianjin Port will no longer accept coal transported by diesel truck. By the end of September, coal at all container gates (in or out) in Tianjin, Hebei and Bohai Rim will be mainly transported by rail. By the end of October, most small coal-fired boilers will have been removed.
  - Second, inspections will begin regarding the reductions targeted toward several industries with overcapacity. These include tire, steel, and coal in 15 provinces.

Adjustment of NEV polices continue. Since Q1’17, the new subsidy policy has been implemented, meaning a change in NEV adoptions.

- For example 8m bus subsidies are down 64%, while those for 10m buses have been cut in half and funding for a 12m NEV bus in 2017 will be 40% lower than it was in 2016.
- The new program also raised requirements for vehicle performance and improved the way the incentive funds are allocated, including more inspections.
- However, these safeguards are expected to add timing delays to receipt of subsidy funds.
- Additionally vehicles must be on an approved list (in a registered government catalog of approved products), as well as operated for a minimum number of miles, to be considered for subsidies under the new program.

As expected the pre-buy impact is weakening, meaning the influence of this policy change is expected to be gone by the end of Q3.

Details of the new program were included in this section of the previous two China CV OUTLOOK quarterly issues.



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The levelling-out of China's economy and lower base year comparisons made for what seems like rapid y/y recovery in some commercial vehicle segments during Q2'17. Coupled with improvement in market demand, domestic need for heavy trucks increased significantly, rising nearly 69%. Driven by the impact of the GB1589 regulation, the tractor segment continues to fare well, with nearly 56% expansion in Q2, down from the overwhelming 150% y/y expansion in Q1'17 and the 118% y/y growth reported in Q4'16.

While still on the positive side of the ledger, medium duty truck sales registered only modest growth, slightly below 10%, but a marked improvement from the 5% increase registered in Q1'17.

Following a pre-buy surge ahead of an expected reduction in NEV bus subsidies that began on January 1, 2017, domestic demand for large and medium buses has been negative throughout 1H'17.

HEAVY DUTY TRUCKS (Dump & Straight)

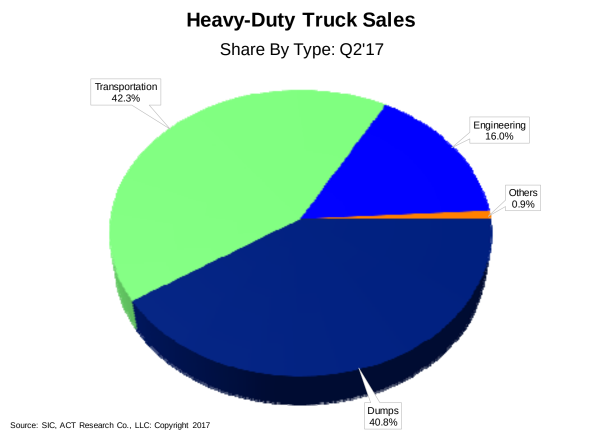
In Q2'17, domestic sales of heavy duty trucks (excluding tractors) totaled 136,561 units, increasing nearly 69% y/y. Export sales were 17,683 units, rebounding from previous quarters' contractions in the negative double-digits to grow nearly 5%.

Three factors weighed on heavy duty truck sales in Q2'17:

- Macroeconomic indicators linked closely to the heavy truck market, such as real estate and infrastructure investment, saw an uptick in the last three months, causing stronger demand for HDTs. GDP fared better than expected, up 6.9%.
- Increased enforcement of GB1589 reduced the willingness to risk overload penalties, which in turn increased demand for higher capacity vehicles as hauling capacity was essentially decreased between 10% and 20%. Stricter implementation is expected to continue through September.
- Two market cycle factors are also at play. HD vehicle production hit a peak in 2010-2011. With a replacement cycle of 5-7 years, domestic demand aside from GB1589 called for an uptick this year. Additionally, export sales grew 5%, a much needed improvement from that segment of sales; this is being attributed to recovery in the global economy.

The majority of heavy trucks in Q2'17 were used for freight hauling, with dump vehicles the next top seller, and construction-related CVs taking a lower portion of the market. Sales of heavy trucks increased 43%, while dump sales rose more than 122%. Construction-related, specialty trucks, saw sales grow a mere 0.8%.

By tonnage, market shares of heavy duty trucks with gross vehicle weight (GVW) between 14 and 19 tons shrank, while those between 19 and 26 tons expanded. HDTs with a gross vehicle weight above 32 tons also lost market share in Q2. The trend to replace heavier trucks with tractor units continues, shrinking the market penetration of that particular weight segment.



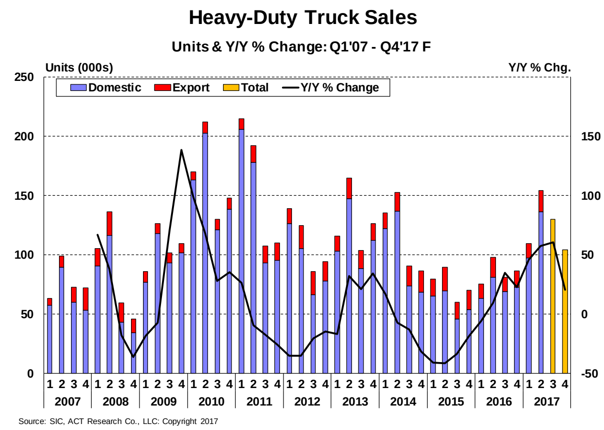
HEAVY DUTY TRACTORS

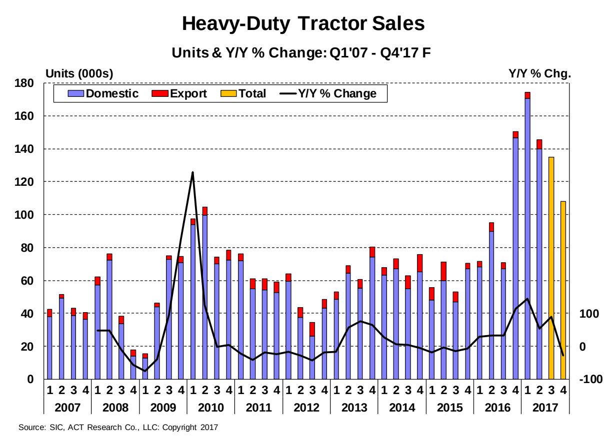
In Q2'17, domestic tractor demand was 139,912 units, continuing to grow on a year-over-year basis, but at a cooler pace than in the previous quarter (+150%). Domestic tractor demand increased nearly 56% in Q2. Export sales were 5,498 units, slowing to a little more than 2% y/y versus the double-digit growth recorded in the previous three quarters.

Domestic sales comparisons in Q2 were:

	2016 Units	2016 Y/Y%	2017 Units	2017 Y/Y %
Apr	30,462	36%	48,204	58%
May	31,332	58%	45,646	46%
Jun	28,031	59%	46,062	64%

After five straight quarters of elevated demand, it seems the segment is beginning to cool, although demand remains healthy at this point. The reasons for the five-consecutive-quarter rapid y/y growth of tractors are similar to the reasons for the solid heavy truck performance: a supportive macro-economy and continuous demand by users to upgrade for vehicle efficiency and hauling capacity in a highly competitive industry, coupled with the implementation and enforcement of GB1589, which is promoting a larger number of users to replace 6x2 tractors with 6x4 vehicles. Also, it's noteworthy that some of the orders placed at year-end 2016 were actually produced in the first two months of 2017, impacted by a lack of production capacity.





Lighter weight vehicles, below 25 tons, increased in Q2, while the market share of those above 40 tons with gross trailer weights (GTW, mass of trailer and load above 40 tons) narrowed. Tractors with GTW between 25 and 40 reported decreased sales again this quarter.

MEDIUM DUTY TRUCKS

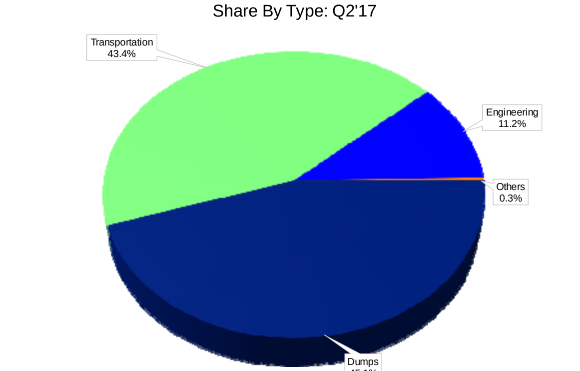
Q2'17 medium duty trucks' growth rate was nearly 10% y/y, with 54,769 units sold domestically. Export sales stood at 7,099 units, registering a surge of 41% y/y. By comparison, there were 49,612 MDT units sold domestically in Q1'17, a 5% y/y increase, while Q1 exports stood at 5,851, up 97% y/y.

We continue to reiterate a note of caution about reporting in this segment of the CV market. A policy launched by the Ministry of Industry and Information Technology (MIIT) in 2016 announced that quadricycles (low-speed trucks) should no longer be produced or sold; their emission standards are not permitted to be lower than MDTs. It is suspected that the MD data reported includes some of those quads previously included elsewhere, which may produce some unexplainable swings in this segment, especially when making y/y comparisons to 2016.

Unlike heavy trucks and tractors, domestic medium duty truck saw modest growth in Q2. The major supporting factor came from China's economy. Infrastructure construction investment remained high, which was favorable to the rapid

Medium-Duty Truck Sales

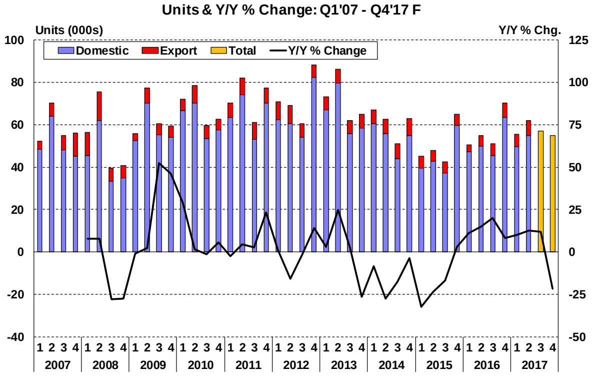
Share By Type: Q2'17



Source: SIC, ACT Research Co., LLC: Copyright 2017

Medium-Duty Truck Sales

Units & Y/Y % Change: Q1'07 - Q4'17 F



Source: SIC, ACT Research Co., LLC: Copyright 2017

growth of dump vehicles. Export sales delivered much better performance, compared to their heavy duty counterparts.

The market share of dump trucks returned to top position in Q2'17, following a one-quarter slip behind freight hauling MD trucks. Freight hauling medium-duty trucks garnered 43% of the segment's market share. Q2, while dump trucks captured 45%. From a sales perspective, dumps rose nearly 62%, freight-hauling MDTs contracted almost 14%, and special medium duty trucks saw a 9% decline in sales y/y in Q2.

Medium duty trucks with gross vehicle weight of 6-8 tons and 12-14 tons lost traction in Q2, while those between 8 and 12 tons saw an uptick during Q2'17. When compared to historical Q2 shares, however, the middle range tonnage levels actually expanded.

LARGE AND MEDIUM BUSES

Q2'17 domestic sales of large and medium buses totaled 25,306 units with 32% y/y contraction. Export volume reached 8,715 units, skyrocketing nearly 63% y/y. This compares to a 43% y/y contraction of domestic large and medium bus sales in Q1'17, and a mere 2% y/y increase in exported buses over the same time period.

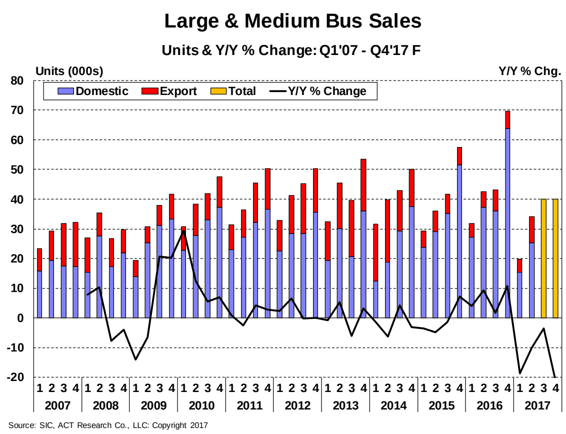
Considerations impacting the large and medium bus markets in Q2'17 included:

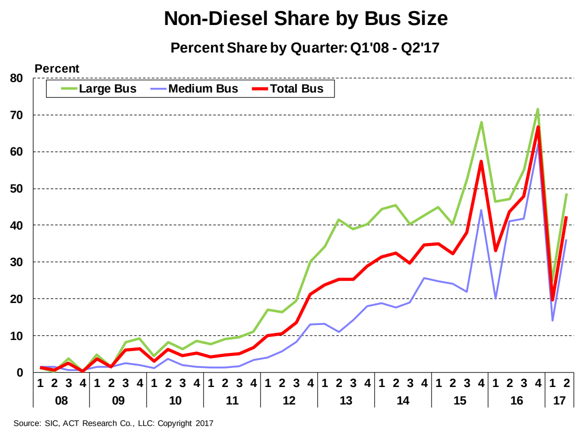
- New energy bus pre-buys in late 2016 resulted in the cannibalization of 1H'17 sales, as users rushed to purchase NEV buses before the subsidy policies were dramatically reduced beginning this year. This is the primary reason bus sales plummeted in 2017's second quarter. However, the decrease has slowed from that reported in Q1, with large bus data back on the positive side of the ledger and the MD bus decline shrinking in Q2.
- Demand for city buses saw a rebound in Q2, particularly in May and June when local bus companies began procurement efforts. Many of these were NEVs. The market share of tourist buses also rose, but demand for coaches shrank from April through June 2017.
  - Demand for large buses continued on their downward trajectory in Q2, but dropped a less significant 6% compared to the 34% tumble they took in Q1. The

share of non-gasoline and non-diesel vehicles recovered in Q2, at 49%; this was up from the 25% reported in Q1'17, but still not near the 72% recorded in Q4'16.

- Medium duty buses fared worse than their big brothers in Q2, shedding 31%, still an improvement over the previous quarter which was down 41%. The share of non-gasoline and non-diesel MD buses more than doubled that of Q1 (14%), reaching more than 36% in 2017's second quarter.

- By length, buses between eight and nine meters regained some strength, while the share of those between seven and eight meters decreased. Other length categories were virtually unchanged.





SHORT-TERM OUTLOOK

The 2016 and 2017 government policy changes have brought a one-time increase in HD/MD commercial vehicle populations. We believe that the latest forecast properly reflects all the new and/or revised policy changes made through May of 2017. The largest impact of these changes is the dramatic shift from heavy-duty truck to heavy-duty tractors as the power unit of choice for logistics. As the market absorbs these extra vehicles, it also stabilizes future demand as fleets and logistic companies will better balance freight volume with available capacity. Therefore, a general negative growth rate through 2021 with some adjustments for pre/post-buy activities is expected because of better logistics, modal shifts and the macro-economic trends caused by the shift from export demand to domestic consumption. That said, in the short-term, heavy trucks and tractors, as well as medium-duty trucks, are expected to see y/y growth continue in Q3.

- Pro-growth, but at a lower rate, continues to be the primary focus as a current level of macroeconomic activity. With the current supply-side restructuring and general slowing of the macroeconomy, we anticipate that infrastructure investment will be China's one economic counterbalance. All three macroeconomic indicators relevant to heavy and medium truck demand, M2 growth, power generation and infrastructure investment, are expected to grow rapidly in the next three months.
- Because overloading laws are being stringently enforced (official implementation started on September 21, 2016), demand for heavy and medium trucks will continue to grow significantly through September. Fleets are no longer waiting on the sidelines and seem eager to make new equipment purchases. That said, it is anticipated that this effort will end in September, and a recent SIC survey revealed that overload enforcement has been heavy on national roads since June-July.
- Freight rates for road transport fell again in July, and as a whole, demand is on the decline with less money in the present market climate.

Additionally, the bus market will have some less-than-favorable factors to address as well, but it is expected to fare better near-term than it has in the most recent past.

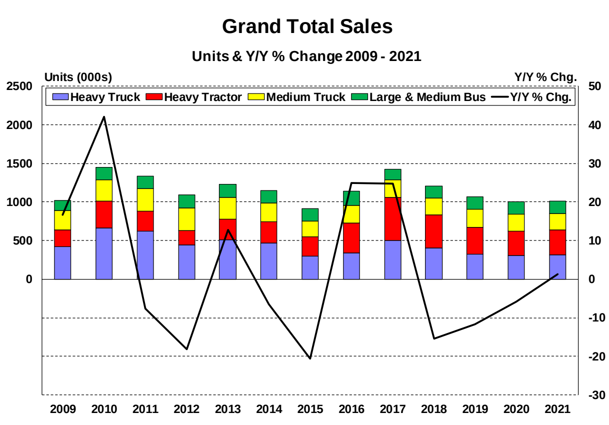
- While macro-economic factors influencing the bus market, PMI and fiscal revenue, are expected to remain stable in the next quarter, this will likely not counter the effect of the NEV subsidy reductions.

NEV subsidies, while still available, are now less supportive, reducing the demand for medium and large buses going forward, as purchase was pulled forward into 2016 ahead of the subsidy reductions. Impacted by the NEV pull-forward, medium and large bus demand is forecast to be negative again in Q3'17, albeit at a slower pace than in 1H'17.

FUTURE DEMAND FORECASTS

Medium and Heavy Duty Trucks

Sales of medium-duty and heavy-duty trucks, including tractors, divide into two categories: those bought to increase the vehicle population and those bought as replacements. Three factors determine commercial vehicle population: total amount of freight to be transported, share of that freight moved via highway, and transport capacity and efficiency per vehicle. Demand for these commercial vehicles is expected to be near 800k units per year in the next five years, but as efficiency and per-vehicle capacity improves, a fluctuating downward trend has started to emerge.



Vehicle Population:

1. **Total Amount of Major Freight Goods, as it corresponds to China's expected GDP around 6.5%:** Road freight volume is primarily composed of three categories: construction materials (cement, sand, stone, etc.), bulk commodities (coal, iron, and steel), and consumer goods. Demand for transport of these three categories of goods relates closely to macroeconomic indicators such as construction investment, production of bulk commodities and total retail sales of consumer goods. Overall, the trend in these economic indicators in the next five years will determine whether demand for transport of major freight can steadily increase. China's economy will grow steadily over the coming years, with GDP expected in the 6.5% range.

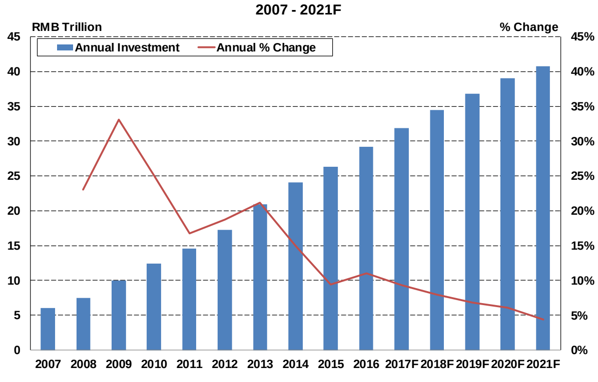
    - Construction is driven by infrastructure and real estate investment. China's urbanization and townization trends will continue, but at a slower pace, with heavy industrialization entering its later growth phase. As a result, infrastructure investment will continue to grow, with emphasis on railways, roads, and airports, but at a more moderate rate during the next five years than the previous five. As part of the 13th Five-Year Plan, there will be less emphasis on real estate investment, with infrastructure projects receiving more attention. This should lead to clearer forecast visibility for this segment, as government programs will be known in advance and be less subject to market forces. We project that investment in transportation, urban infrastructure, and power grids will continue to grow.

        - o Real estate inventory is expected to remain high in the next five years, with investment likely to drop and the potential buyer pool (those ages 25 to 39) having peaked in 2013. Future demand will likely decrease gradually, with capital shifting to other forms of investment.
        - o Overall infrastructure investment will continue its current growth trajectory, but that pace will not be enough to offset slower real estate investment; total investment will gradually soften. Compared to other major economies' infrastructure, China still has considerable room for improvement, supported by central and regional growth policies, such as One Belt and One Road (or Belt and Road), Yangtze River Economic Zone, and integration of the Beijing-Tianjin-Hebei Region.
        - o In general, construction investment will continue to grow over the next few years, helping to generate stable demand for medium and heavy-duty trucks.

    - Production of bulk commodities: One of the priorities of the 13th Five-Year Plan is supply-side reform. This includes addressing bulk commodity over-capacity and the proliferation of zombie companies. The first two industries to be addressed in this plan were steel and coal, as they are the two responsible for

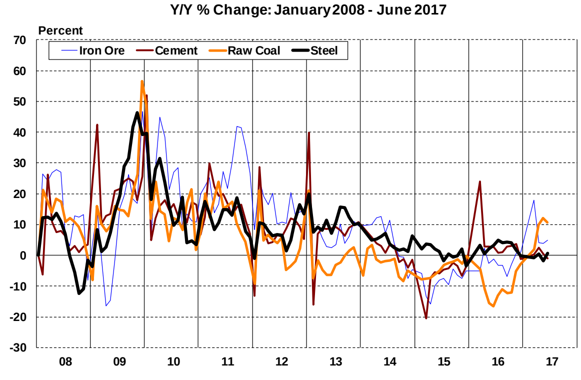
Construction Investment

2007 - 2021F



Output of Bulk Commodities

Y/Y % Change: January 2008 - June 2017



the majority of high energy consumption and, in turn, pollution. Although the process of reducing capacity or upgrading to more energy efficient operations began several years ago, this is an on-going process, resulting in continued slowing of these markets, as well as the need for vehicles to transport the commodities. Other commodities to be revamped include cement and electrolytic aluminum.

- o While coal transport has been a critical driver of regional truck demand in China, in other countries bulk commodities are transported primarily by rail. Additionally, in China, large-scale rail lines are constructed specifically to haul freight; this separate "single-use" rail development is different from that which occurs in many countries. This causes headwinds for long-haul truck demand, and may, in the end, completely eliminate longer-haul highway transport of bulk commodities, which would not be favorable for the demand of medium and heavy trucks. Before that happens, however, intermodal freight movement, primarily of more consumer-oriented goods, will likely develop as a by-product of this rail system capability, driven by growth and development of logistics systems in China.

- Total retail sales of consumer goods: Presently, China's consumer consumption rate is lower than that of developed countries and other BRICS countries (BRICS: an association of five major emerging national economies including Brazil, Russia, India, China and South Africa). According to the U-shaped curve theory for economic development, for an economic entity in its primary stage of industrialization, the investment intensity (the percentage of investment in GDP) keeps rising until a turning point is reached. Then, the consumption intensity (the percentage of consumption in GDP) starts to increase. China's consumption is at that turning point, and China's domestic consumption is expected to increase significantly with the government's policy switching the major source of economic growth from investment to domestic demand mode.

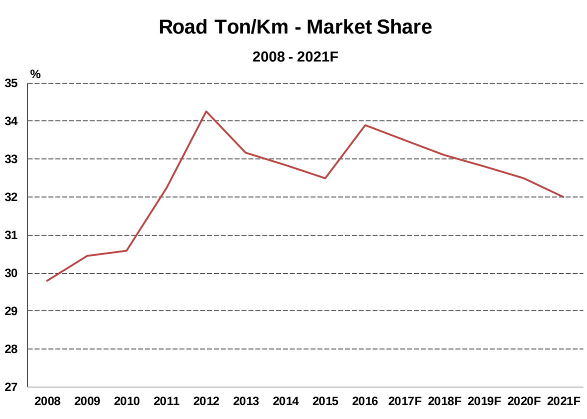
- o It is estimated that the central government's goal of stabilizing China's economy is favorable to a constant increase of incomes. In the Third Plenary Session (2013), the government proposed forming a reasonable and orderly layout for income distribution and the development of an equitable and sustainable social security system. These proposals show that income improvement and distribution are important aspects in urban and rural reforms. As these reforms are implemented, domestic demand will grow and total retail sales of consumer goods are expected to rise steadily in both urban and rural areas, meaning transport demand for consumer goods will increase.

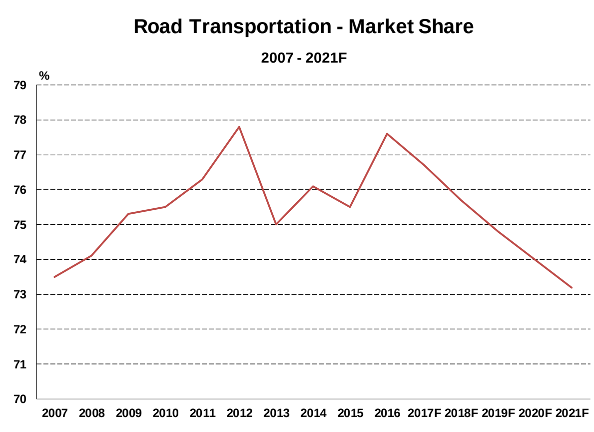
- o More and more, consumer demand is manifesting itself via e-commerce, or e-tailing. It is estimated that in 2020 China's online shopping transactions will total 20% of retail consumption. There presently are 400 million online consumers and this is estimated to rise to 700 million by 2020. In China, large portions of e-tailing transactions are actually done via phone, rather than through personal computers. With information platforms improving, the expansion of e-commerce is expected to continue, particularly with policy support from the government. Currently the Ministry of Commerce is actively promoting an *E-commerce Law*, which sets legal restraints on transaction participants, protects consumer rights, and promotes healthy development of e-commerce by regulating industry standards and market order.

- o Based on research by the China E-Business Research Center, e-commerce is generating 74% of the express delivery industry volume and 60% of total logistics volume. With no slowdown in sight, the rapid expansion of e-tailing will help grow future demand for medium and heavy-duty trucks. Systems and methodologies to deliver these internet-ordered goods will also aid commercial vehicle demand. LD (Light Duty) vehicles will be needed for last-mile/courier deliveries, but because many of the products are produced in China's Eastern region and ordered online by residents in the middle and Western portions of the country, MD and HD trucks will also be needed to transport the goods to these inland communities.

2. **Replacement Demand:** Based on historical sales and the 6.7 million medium and heavy duty trucks already hauling freight in China, SIC calculates that, given a replacement cycle of 5-7 years, medium and heavy duty truck demand of 800,000 units per year will be needed in the next five years.

   - Replacement demand is determined primarily by historical sales, retirement policies and other regulatory impacts. Theoretically, demand should increase in the next five years. However, this will likely be tempered by efficiency and quality improvements. Additionally, vehicles with higher capacities will help moderate long-term replacement demand.
   - Historical Sales: The sales of medium and heavy duty trucks reached peak levels between 2009 and 2012, meaning replacement demand will come steadily in the following years, as replacement sales are made for vehicles older than 5-6 years. Increased efficiencies will mean vehicles being retired will not necessarily be replaced on a one-for-one basis. Additionally, dealers and fleets told ACT personnel in early 2016 that replacement cycles are lengthening from five to eight years, a result of improved technology and quality in newer trucks.
   - Retirement Policies: *Rules for Mandatory Motor Vehicle Retirement Standards* published by the Ministry of Commerce became effective in May 2013. These rules define a retirement age and mileage ceiling for every type of commercial vehicle. According to *Air Pollution Control in Key Areas* during the 12th Five-Year Plan, China will eliminate yellow label cars by 2017. While a small percentage of total vehicles in operation, these vehicles are estimated to be responsible for over three quarters of unfavorable emissions. Moreover, as long as China's battle with air pollution continues, the replacement of these vehicles will be a focus for national and local governments. That said, we feel it noteworthy for readers to understand that the majority of these





yellow-label vehicles are passenger cars or buses; relatively few are commercial trucks.

3. **Freight Elasticity:** In the next five years, China's economic restructuring and upgrades to its industrial sector will mean a weakening demand for trucks used for construction, but an increase in those vehicles for freight hauling and logistic purposes.

4. **Economic development** in China divides into three stages: factor-driven (GDP/capita < $4000), efficiency-driven (GDP/capita $4000-$17,000), and innovation-driven (GDP/capita > $17,000). In the next five years, China is expected to be in the efficiency-driven stage, meaning China's logistics industry will become more competitive, professional, and efficient. This is an area of great potential, and efficiencies gained here over the next decade could be significant.

- Improved logistics will become critical as China transitions from an export-driven to a consumption/domestic demand-driven economy.
- The *Mid- and Long-Term Plans for Development of Logistics Sector* policy establishes 2020 as China's goal for installing logistics improvements to standardize information sharing and increase efficiency in freight hauling, particularly as internet and mobile technologies advance. Additionally, drop-and-hook and multi-modal operations are expected to grow as part of this transition.
- Additionally, logistics systems are improving, fleets are getting larger, and owner-operators are declining. Again, advancing technologies will play a major role in the change of this segment of the industry.
- In general, logistics efficiency will see rapid improvement in the coming years.
- At the same time, road transport will continue to lead the market, but will be challenged in share by China's developing railway system. With improvement in railway service and efficiency, some of the goods (particularly bulk transport such as steel and coal) that were moved via highway will find their way to rail cars, which are less expensive and more energy efficient. Goods transport demanding timeliness, or freshness in the case of food items, will continue to necessitate road or intermodal transport and logistic system improvements. Large logistics platforms (Deppon and Transfar, for example) will strengthen their cooperation with rail operators going forward.
    - The objectives of railway reform are to raise market share and better integrate the rails into logistics systems. This is part of an overall effort for transport organization reform, which will increase freight capacity and improve freight rates. All of these will be a benefit of a widespread development of professional logistics systems. The rail systems for freight transport will generally be separate from the passenger rail network. This passenger/freight system separation is different from many other countries.

With the rapid development of multimodal, freight transport in the future will rely on a variety of methods, depending on capacity, cost, timeliness, and a variety of other factors. Medium and heavy duty trucks will continue to be needed for goods movement via the roads, but demand is likely to decrease as logistics improve and more competitors (rail, water, and air) seek to take market share from the traditional road transport market.

5. **Technological Developments:**

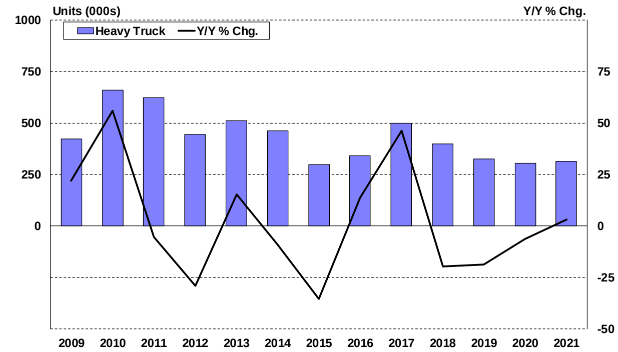
- Scale development: The development of Internet+, e-commerce, and vehicle networking technology will promote logistics integration in the transportation industry. Large specialized logistics companies with high efficiency, such as SF and Deppon, will become mainstream, pushing the logistics industry toward specialization and higher efficiency.
- Information development and platform integration: Asset-light logistics enterprises, which rely on information development and take advantage of the integration of different platforms, will become a dominant force in the future as well.

6. **Regulatory Impact:** The 13th Five-Year Plan includes focus on two aspects of the heavy truck industry: efficiency and environmental impact. GB1589 was published in May, and became effective on July 26, 2016. This legislation limits the size, axle load and weight of on-highway vehicles. This regulation does two things; it relaxes restrictions on vehicle size and encourages the use of new technologies. The goal is to improve logistic efficiency and it does this by:

- Favoring the use of lighter and larger vehicles, particularly for refrigerated trucks, express vehicles, slag trucks and sand-transport trucks.
- Increasing maximum total mass for five specialty vehicles, including crane trucks, concrete pumps, fire trucks, wreckers, and oil field specialty vehicles.

Heavy-Duty Truck Sales

Units & Y/Y % Change 2009 - 2021



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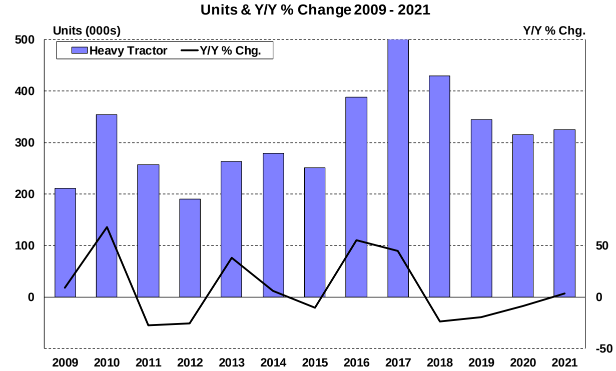
Heavy-Duty Tractor Sales

Units & Y/Y % Change 2009 - 2021



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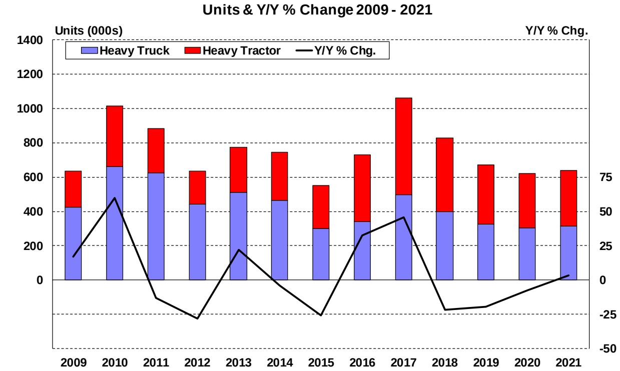
Total Heavy-Duty Sales

Units & Y/Y % Change 2009 - 2021



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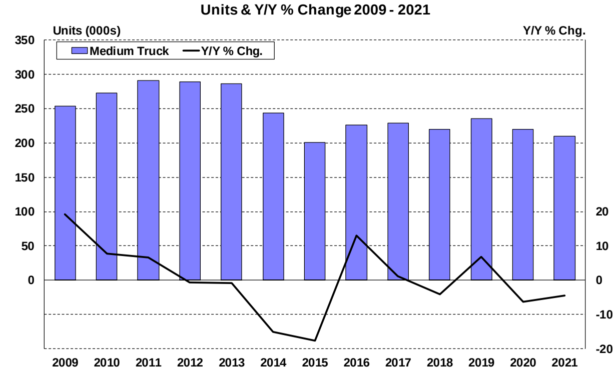
Medium-Duty Truck Sales

Units & Y/Y % Change 2009 - 2021



Source: SIC, ACT Research Co., LLC: Copyright 2017

- Attaching importance to the study of modularization of combination vehicles and tractor-trailers.
- Promoting technical product development of drop-and-hook and long-nose vehicles, standardizing height of fifth wheels.
- Stressing the importance of efficiency and environmentally friendly technologies, such as super single tires and aerodynamics.

Short-term, this will stimulate replacement demand, but as fleets adjust to these new product requirements long-term and transport efficiency increases, the demand for additional units is expected to decrease.

The central government is also accelerating emissions regulations. Eleven Eastern provinces have already taken the lead in implementing NS V standards, while the rest of the country is expected to be NS V compliant by 2017. NS VI is scheduled for implementation in 2023, and heavy duty OEMs are already being encouraged to prepare for the enforcement of upcoming stringent emission regulations.

Medium and Large Buses

The medium and large bus market can be divided into three parts: urban transit (public bus), highway (touring coach + passenger transport/interurban coach) and school bus. NEV subsidies are expected to support medium and large bus growth in the next five years, as safety and emission regulations are enforced. After the market settles from the 2016 pre-buy and the subsequent drop in 2017, China bus market is forecast to re-settle in the area of 160,000-unit production per year.

1. **Urban Transit/Public Buses**
   In the next five years, the expansion of China's urban population and areas, as well as favorable policies, will make public buses the primary driving force of growth in the medium and large bus market. In the meantime, public buses are adversely affected by the popularity of private cars and railway transport. In general, demand for public buses will continue to grow.

- Urban population: Urban population and public bus population are closely related. In the next five years, as urbanization reform, household registration reform, and land reform become more impactful, the urbanization rate in China will see significant improvement and is expected to reach 60% in 2020. The increase in urban population will help create demand for public buses. At the same time, Premier Li Keqiang emphasized that during the 13th Five-Year Plan period, the country's population may be redistributed, allowing 100 million migrant workers to settle in cities and towns, while 100 million farmers will be encouraged to voluntarily move to nearby cities. This is an effort to solve housing supply-demand imbalances and is expected to create demand for public buses.
- Built-up areas: Akin to urban sprawl, in the next five years, city/urban areas in China will continue to expand, but at a slower rate. As part of the 13th Five-Year Plan, due to government debt loads, real estate inventory imbalances, and population control in first tier cities, this slowing urban growth will result in slower demand for buses.
- Bus-related policies:
  - Transit metropolises: This would require future dense, mixed-use urban development to be "transit oriented." Public transport within walkable distances would be a "front-end" criterion for urban development. Where applicable, the usage of integrated transportation hubs would occur (bus and rail system integration). To encourage usage, efficiency from intelligent transport systems using vehicle monitoring and schedule coordination would be implemented. The Transport Division of Ministry of Transportation (MOT) proposed a plan to start another 50 transit metropolises in 2015. When complete, there will be 87 transit metropolises nationwide.

- Microcirculation buses: Experiments with microcirculation buses, used to transport residents from metro stops into communities, are underway and expected to become a trend in the future.
- Alternative-fueled buses: Faced with the pressure of environmental protection, central and local governments have announced a series of NEV (new energy vehicle) promotion policies. Those policies will shorten the replacement cycle for public buses currently operating, creating a favorable environment for the public bus market. It is predicted that by 2018 30% of China's buses will be powered by alternative fuel.

- Urban railway system: China's rail transit system is expected to expand to 6,000 km by 2020. This will be supported by the growing mobile/internet-based reservation system that will further expand user convenience. This type of growth will continue to negatively impact the large and medium bus markets.

2. Highway Buses

One of the benefits of income growth for the transportation sector will be increased residential travel. However, the impact on highway buses is expected to slow as private vehicle travel becomes more popular. The improved availability of rail transportation in remote areas of the country, which have historically been served by bus transportation, will also result in slower long-term bus demand. Based on these factors, momentum for future growth is lacking and a downward trend will likely occur in the next five years.

- **Travel of residents:** The 18th NCCPC proposed a target to double income. By 2020, both GDP and per capita income are expected to meet this goal.
    - Under the proposed new Inter-Ministerial Conference of State Council on Tourism, the holiday/vacation days of China's labor force are expected to be better protected. That will give residents increased confidence to schedule leisure time, more willingness for leisure travel, and greater travel frequency. The increased tourism activity will lead directly to steady growth for the passenger transport market.
    - However, industries transferring to the middle and western sections of China from the eastern part of the country will generate some negative headwinds. This will encourage workers to work locally instead of migrating, thus reducing the demand for long distance travel.
    - Additionally, highway bus growth may be stunted as stricter safety regulations on road passenger transport are implemented. This could increase vehicle cost and limit the number of new vehicles acquired.
- Substitution: While rural income growth is spurring travel willingness, and the majority of this is by bus currently, this may not always be the case.
    - While China's rail network currently serves limited areas, this will change with the construction of eight vertical and eight horizontal lines traversing the country. Expanded passenger rail infrastructure will mean the long-distance bus market boon will continue in the short-term, but will decline as time progresses and the rail system grows.
    - Private cars, particularly on the country/rural level, have maintained a double-digit growth rate in the past ten years. Ownership will continue its upward trend, pending income growth and regulation that might stall the growth of personal vehicle ownership, and demand for highway buses will suffer longer-term.
- **Policies and regulations:** Highway passenger transport presently faces severe safety issues. In the next five years, road safety regulations will be more dutifully enforced, causing the cost

of long-distance travel to rise significantly. This will be detrimental to long-distance bus market growth.

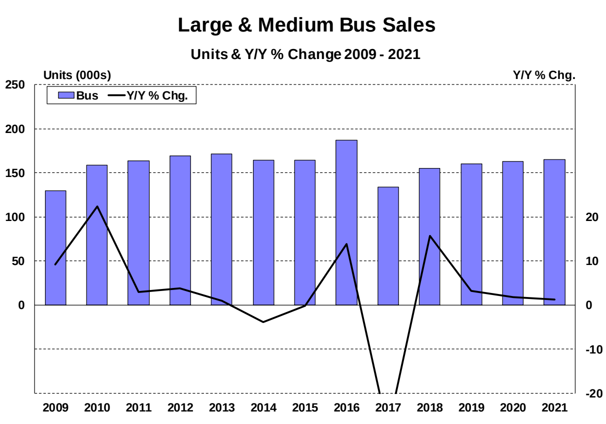
3. School Buses

Due to the frequent school transportation accidents in recent years using smaller vehicles with an unsafe passenger load, the market support for school buses has surged, and the school bus segment has become an important part of the large and medium bus market. However, a lack of funding does not support immediate policy implementation. While this issue will be solved, it will occur gradually rather than in one fell swoop.

However, alternatives to regular school bus transport are being developed, using internet logistics services known as “Internet Plus.” For example, Kuaidi, the leading car-hailing app in China, introduced the “Internet + School Buses” service, launching its “No.1 School Bus” app. This is the latest attempt to match the demand and the supply of school buses by using internet logistics to define demand for school transportation. If it works, it will identify the opportunities for school bus implementation and boost future demand for school buses. Additionally, school bus manufacturer Yutong has released its own “Secure School Bus Intelligent Management System” as a solution to some of the segment’s safety and service challenges.

Although the industry is encountering bottlenecks, there remains a huge demand for school buses across the country. Since 2010, China has become the world’s second largest economy, and China’s population has increasingly higher requirements for quality of life, comparable to developed countries such as the United States, Japan, and some European countries. Developed countries attach great importance to the safety of students on their way to school and their return home, and the school bus plays a vital role in this issue. In China, the number of middle school and primary school students is large and the school bus equipment usage rate is quite small, resulting in great potential demand in the future. At present, 70% of China’s kindergartens are privately operated, making them a large potential market for school bus demand. It is estimated that, based upon China’s school-aged population, there should be at least 200,000 school buses in operation across the country.

Subsidies to education and welfare from central and local governments are certain to rise; policies about usage of school buses will be improved, and school bus safety will be better guaranteed. Demand for school buses will be an important segment generating growth in the bus market. When all supporting factors come into alignment, the impact could be a near vertical increase in demand rather than a more gradual ramp-up. While financing will be a challenge, meeting this surge in demand could be a challenge to the bus market but could also open up significant short-to-medium term opportunites.



SHORT TERM FORECAST (including export)

	2015					2016					2017				
	Q1	Q2	Q3	Q4	2015	Q1	Q2	Q3	Q4	2016	Q1	Q2	Q3(F)	Q4(F)	2017(F)
Heavy Trucks	79,551	89,441	60,067	70,222	299,281	75,063	97,876	81,076	86,306	340,321	109,576	154,244	130,000	104,000	497,820
Heavy Tractors	55,689	71,251	53,216	70,548	250,704	71,503	95,196	70,928	150,481	388,108	174,454	145,410	135,000	108,000	562,864
Total Heavy-Duty	135,240	160,692	113,283	140,770	549,985	146,566	193,072	152,004	236,787	728,429	284,030	299,654	265,000	212,000	1,060,684
y/y % growth	*-33.4%*	*-28.8%*	*-26.0%*	*-13.0%*	*-26.0%*	*8.4%*	*20.2%*	*34.2%*	*68.2%*	*32.4%*	*93.8%*	*55.2%*	*74.3%*	*-10.5%*	*45.6%*
q/q % growth	*-16.4%*	*18.8%*	*-29.5%*	*24.3%*		*4.1%*	*31.7%*	*-21.3%*	*55.8%*		*20.0%*	*5.5%*	*-11.6%*	*-20.0%*	
Medium-Duty Trucks	45,260	47,851	42,503	64,818	200,432	50,349	55,011	50,950	70,242	226,552	55,463	61,868	57,000	55,000	229,331
y/y % growth	*-32.4%*	*-23.5%*	*-16.9%*	*3.2%*	*-17.7%*	*11.2%*	*15.0%*	*19.9%*	*8.4%*	*13.0%*	*10.2%*	*12.5%*	*11.9%*	*-21.7%*	*1.2%*
q/q % growth	*-27.9%*	*5.7%*	*-11.2%*	*52.5%*		*-22.3%*	*9.3%*	*-7.4%*	*37.9%*		*-21.0%*	*11.5%*	*-7.9%*	*-3.5%*	
Large & Medium Buses	29,294	35,990	41,646	57,369	164,299	31,700	42,602	43,115	69,659	187,076	19,867	34,021	40,000	40,000	133,888
y/y % growth	*-7.3%*	*-9.8%*	*-3.0%*	*14.4%*	*-0.2%*	*8.2%*	*18.4%*	*3.5%*	*21.4%*	*13.9%*	*-37.3%*	*-20.1%*	*-7.2%*	*-42.6%*	*-28.4%*
q/q % growth	*-41.6%*	*22.9%*	*15.7%*	*37.8%*		*-44.7%*	*34.4%*	*1.2%*	*61.6%*		*-71.5%*	*71.2%*	*17.6%*	*0.0%*	
Grand Total	209,794	244,533	197,432	262,957	914,716	228,615	290,685	246,069	376,688	1,142,057	359,360	395,543	362,000	307,000	1,423,903
y/y % growth	*-30.4%*	*-25.5%*	*-20.1%*	*-4.3%*	*-20.6%*	*9.0%*	*18.9%*	*24.6%*	*43.3%*	*24.9%*	*57.2%*	*36.1%*	*47.1%*	*-18.5%*	*24.7%*
q/q % growth	*-23.6%*	*16.6%*	*-19.3%*	*33.2%*		*-13.1%*	*27.2%*	*-15.3%*	*53.1%*		*-4.6%*	*10.1%*	*-8.5%*	*-15.2%*	

FORECAST DATA

LONG TERM FORECAST (including export)

	2012	2013	2014	2015	2016	2017(F)	2018(F)	2019(F)	2020(F)	2021(F)
Heavy Trucks	443,217	510,586	464,346	299,281	340,321	497,820	400,000	325,000	305,000	315,000
y/y % growth	*-29.1%*	*15.2%*	*-9.1%*	*-35.5%*	*13.7%*	*46.3%*	*-19.6%*	*-18.8%*	*-6.2%*	*3.3%*
Heavy Tractors	190,808	263,404	279,352	250,704	388,108	562,864	430,000	345,000	315,000	325,000
y/y % growth	*-25.7%*	*38.0%*	*6.1%*	*-10.3%*	*54.8%*	*45.0%*	*-23.6%*	*-19.8%*	*-8.7%*	*3.2%*
Total Heavy-Duty	634,025	773,990	743,698	549,985	728,429	1,060,684	830,000	670,000	620,000	640,000
y/y % growth	*-28.1%*	*22.1%*	*-3.9%*	*-26.0%*	*32.4%*	*45.6%*	*-21.7%*	*-19.3%*	*-7.5%*	*3.2%*
Medium-Duty Trucks	288,660	286,413	243,450	200,432	226,552	229,331	220,000	235,000	220,000	210,000
y/y % growth	*-0.7%*	*-0.8%*	*-15.0%*	*-17.7%*	*13.0%*	*1.2%*	*-4.1%*	*6.8%*	*-6.4%*	*-4.5%*
Large & Medium Buses	169,568	171,121	164,549	164,299	187,076	133,888	155,000	160,000	163,000	165,000
y/y % growth	*3.7%*	*0.9%*	*-3.8%*	*-0.2%*	*13.9%*	*-28.4%*	*15.8%*	*3.2%*	*1.9%*	*1.2%*
Grand Total	1,092,253	1,231,524	1,151,697	914,716	1,142,057	1,423,903	1,205,000	1,065,000	1,003,000	1,015,000
y/y % growth	*-18.2%*	*12.8%*	*-6.5%*	*-20.6%*	*24.9%*	*24.7%*	*-15.4%*	*-11.6%*	*-5.8%*	*1.2%*

HEAVY TRUCK & TRACTOR OEMs

STRAIGHT TRUCKS (excluding tractors)

China's top two straight truck manufacturers maintained their respective market share positions in Q2'17. Leader Dongfeng slipped from just below 26% to a little more than 23% in Q2'17, while CNHTC regained one of the market share points lost the previous quarter, now holding nearly 20% of the market. Shaanxi Auto was able to unseat third-place JAC, with the former now at nearly 14% of the market and the latter dropping to sixth seat this quarter with only 7%. Additionally, FAW held onto the segment's fourth position, gaining more of the market and sitting with about 13% of the straight truck sales in Q2.

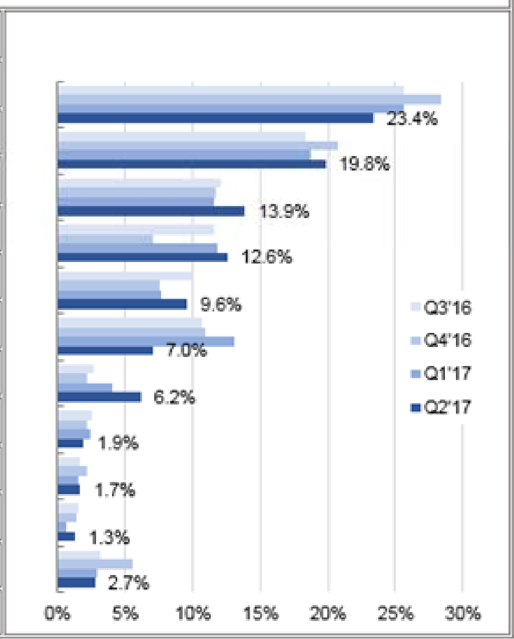
Sales in this segment of China's CV industry were relatively aggressive in Q2, with almost 58% y/y expansion supported by high double-digit growth on a y/y basis from most major OEMs. In aggregate, the top five producers control more than 79% of China's HDT market; the top 10 OEMs have a concentration of 97%. Major factors impacting Q2 competition were:

- Improvement in China's macro-economy, including an industrial production recovery, real estate investment, and continuing infrastructure development, aided HDT sales. Construction truck demand rose rapidly.
- Enforcement of overloading and refitting regulations also supported the growth of HD trucks in 2017's second quarter.
- Shaanxi Auto's success this quarter was a result of dump truck sales, which grew 120% in the past three months. The company's full-year target for HD vehicles (including tractors) has been adjusted from 95k to 130k.
- SIH's dramatic y/y increase (+193%) continues, aided by the OEM's recent foray into the on-highway market and marketing strategies, in addition to a low base-year comparison. The rising construction demand, and need to transport construction waste, has given SIH its current advantage. The company's large orders for mid-axle car carriers have also buttressed the organization's current sales trajectory. In 1H'17, more than 61% of SIH's sales came from this subset of the industry.
- With quarterly growth of 137%, XCMG re-entered this segment's top ten list, relying on its traditional construction-related advantages.

(For reference, information on strategic alliances between China's commercial truck OEMs and OEMs from around the world is included on Page A-1 of this report, as well as on page 39.)

Heavy Duty Truck Market Share Trends

Make	Q2'17 Sales	Q2'16 Sales	Y/Y % Change
Dongfeng	36016	24892	44.7%
CNHTC	30552	18572	64.5%
Shaanxi auto	21363	11776	81.4%
FAW	19393	10496	84.8%
Foton	14771	8815	67.6%
JAC	10823	11155	-3.0%
SIH	9496	3242	192.9%
CAMC	2986	2186	36.6%
Beiben	2629	1989	32.2%
XCMG	1993	841	137.0%
Other	4222	3912	7.9%
Total	**154244**	**97876**	**57.6%**



TRACTORS

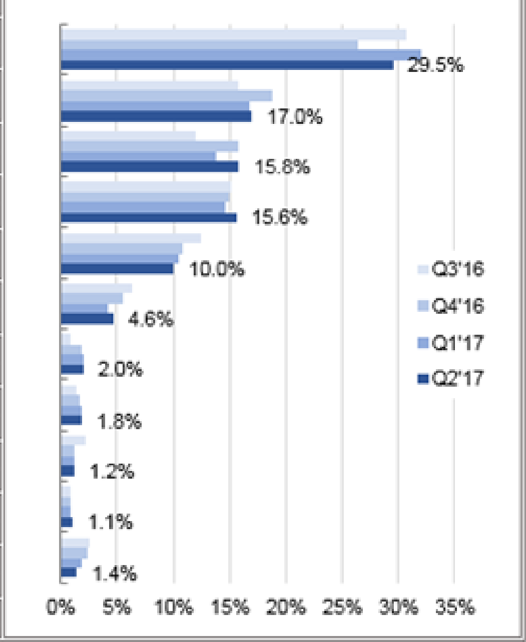
After several quarterly declines, FAW was able to maintain its top position in this segment, despite its market share taking a two ppts hit in Q2 and falling to around 30%. Shaanxi Auto also kept its second chair, with a virtually unchanged market share of 17%. CNHTC was booted from third place by Dongfeng, with the former at 15.6% market penetration and the latter at 15.8%.

Competition in this fast-growing segment remains fierce. The top five manufacturers hold market concentration near 88%, the same as last quarter. On a year-over-year basis, tractor sales managed to grow nearly 53% y/y, considerably lower than Q1's 144% y/y increase. Factors influencing the Q2'17 tractor market included:

- Some of the same factors that produced growth in the HDT segment were also in play for tractor sales, including economic improvement and continued enforcement of overloading and refitting rules.
- Demand for the company's dominant products, their ability to respond quickly to change in market demands, and aggressive promotions were cited as the reasons for FAW's continued success in this market segment during Q2. The full-year target for FAW Jiefang MD and HD has been adjusted from 227k to 235k units.
- JAC has been updating its product offerings, adding lightweight options, and increasing both capacity and sales channels. The addition of its Gallop K7 was noted as the filler for the company's high-end product gap. This is what helped the company's tractor sales grow nearly 333% y/y in Q2'17.

Heavy Duty Tractor Market Share Trends

Make	Q2'17 Sales	Q2'16 Sales	Y/Y % Change
FAW	42853	30291	41.5%
Shaanxi auto	24679	15276	61.6%
Dongfeng	23009	12282	87.3%
CNHTC	22648	13749	64.7%
Foton	14556	12681	14.8%
Dayun	6756	4642	45.5%
JAC	2856	660	332.7%
SIH	2681	1719	56.0%
XCMG	1738	1143	52.1%
Beiben	1554	755	105.8%
Other	2080	1998	4.1%
Total	**145410**	**95196**	**52.7%**



MEDIUM DUTY TRUCK OEMs

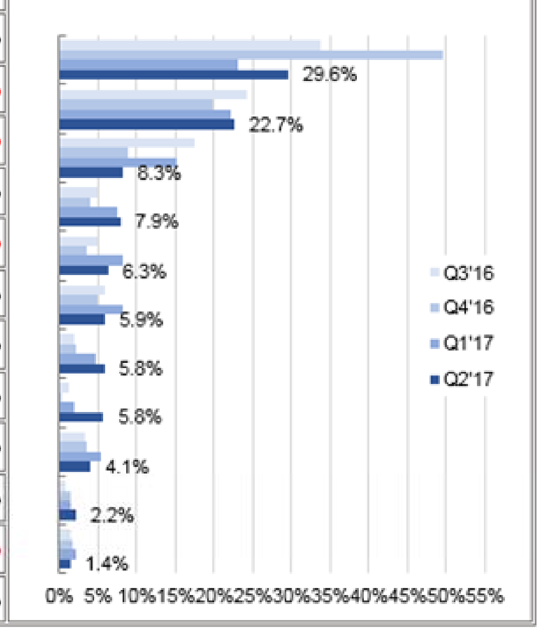
Although all three leaders held their respective market positions in this CV segment at the end of Q2'17, the actual concentration by each gyrated significantly. Leader Lifan was able to secure its lead, increasing to nearly 30% of the segment's sales. It has been the market's top OEM since 2015. While Dongfeng's market share rose slightly to nearly 23%, keeping the company in the segment's second chair, third-place FAW was able to maintain its position, despite dropping to 8% of the market from its previous penetration of 15% in Q1'17.

Assessment of concentration in the medium truck market shows the top three producers with more than 60% of the segment's sales, virtually unchanged from last quarter. That said, the top five manufacturers control nearly 75% of the market, down from a peak of 96% in Q4'16. On a y/y basis, medium duty truck sales continue to be positive, albeit at a slowing pace. Total segment sales increased around 13% y/y in Q2. This was three ppts higher than Q1, but less than the 15% in Q2'16. Contributing factors to the competition pattern of medium duty truck included:

- MDT sales in Q2'17 were a result of the country's industrial rebound, continued infrastructure needs, and a high concentration of new product launches driven by emission upgrades.
- Lifan was one of those OEMs who had produced more for agricultural use in the past, but has expanded into the on-road MD market. The company's success is also attributed to their geographic advantage, located in Southwest China, as well as the firm's switch to higher-end products.
- Tangjun has also moved from agricultural vehicle production into the MDT market, and it benefits from a low price point, resulting in the 250% y/y growth in Q2.

Medium Truck Market Share Trends

Make	Q2'17 Sales	Q2'16 Sales	Y/Y % Change
Lifan	18319	9746	88.0%
Dongfeng Group	14029	15093	-7.0%
FAW Group	5114	10880	-53.0%
Dayun Auto	4909	3519	39.5%
Anhui JAC	3919	6719	-41.7%
Qingling Motors	3651	2727	33.9%
BAIC Group	3600	1777	102.6%
Tangjun	3559	1016	250.3%
CHNTC	2526	1966	28.5%
CNJ Group	1346	443	203.8%
Other	896	1125	-20.4%
Total	**61868**	**55011**	**12.5%**



LARGE & MEDIUM BUS OEMs

In Q2, Yutong was able to hold onto the top bus segment position, although the group's market penetration dropped ten ppts to 31%. Second-place King Long maintained its position, despite losing three ppts and reaching just over 16% market penetration. Anhui JAC also was able to keep its seat, third place, and was the only one of the top three place holders to gain market share, reaching more than 10% of the medium and large bus market in Q2.

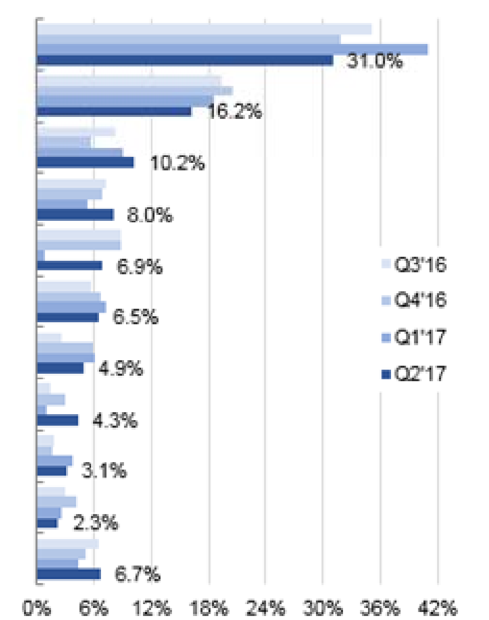
The top five bus makers were able to garner nearly 72% of the market, a decrease from the 82% hold by Q1's top three OEMs. On a y/y basis, the medium and large bus markets fared poorly in 2017's second quarter, shedding more than 20% y/y. A change is NEV policy and slumping BEV bus sales were the culprits for the past two quarter's significant declines, a dramatic change from the previous three quarters, with 21% (Q4'16), 5% (Q3'16), and 18% (Q2'16) expansion. Q2's decline, however, did narrow from that reported three months ago, and BYD was able to re-enter this segment's top OEM ranking.

The large and medium bus market was impacted by the following factors in Q2'17:

- The drop was not entirely unexpected as NEV sales (pre-buys) drove Q4'16 growth, as manufacturers put a great deal of effort into producing and registering these units before new, less accommodative subsidies were implemented at the beginning of 2017. More segment adjustment to the new NEV policies are possible, but production and sales are expected to gradually improve.
- After being acquired by Dongxu Optoelectronic for 2 billion yuan, Sunlong Bus enjoyed nearly 300% growth. NEV sales and a low base-year comparison contributed to the soaring statistic.

Medium and Large Bus Market Share Trends

Make	Q2'17 Sales	Q2'16 Sales	Y/Y % Change
Yutong Group	10535	15872	-33.6%
King Long Motor	5508	8617	-36.1%
Anhui JAC	3479	3368	3.3%
Dongfeng Group	2706	2610	3.7%
BYD	2348	2000	17.4%
Zhongtong Bus	2203	2789	-21.0%
BAIC Group	1665	2456	-32.2%
Sunlong Bus	1457	389	274.6%
FAW Group	1069	774	38.1%
Asiastar	774	1184	-34.6%
Other	2277	2543	-10.5%
Total	**34021**	**42602**	**-20.1%**



MARKET DEVELOPMENTS

Yinlong invests 15 billion RMB to build NEV production plant in Luoyang: On August 8, Zhuhai Yinlong New Energy Co., Ltd. signed a cooperative agreement with the Luoyang government. Yinlong will build the Yinlong NEV (Luoyang) City-Industry Integration Industrial Park to produce new energy vehicles, including BEV commercial vehicles.

FAW and CSGC switched leaders: On August 2, after serving as FAW's CEO for two years, Xu Ping traded positions with Xu Liuping, to become the new CEO at China South Industries Group Corporation (CSGC). Xu Liuping will now serve as the leader of FAW operations.

Suzhou Kinglong regains NEV qualification: On June 29, MIIT issued notice on recertification results for four NEV manufacturers, including Suzhou Kinglong and Henan Shaolin. The manufacturers regained qualifications, meaning their products now qualify for sales through the NEV promotion catalog.

CHTC now owns shares of CAMC, after paying 616 million RMB: On June 29, CAMC announced that it transferred 15.24% share to CHTC. After the transfer, CHTC became the largest shareholder of CAMC, with CHTC planning to invest its CV business assets into CAMC.

Ningbo BYD officially went into production: On June 23, Ningbo BYD held a grand opening ceremony for the BYD K8 production line. Groundbreaking for the project was done less than a year ago, in July 2016.

Sunlong Bus NEV planning a factory in Nanning: On June 20, Shanghai Sunlong Bus Co., Ltd. and Nanning government signed investment agreement on NEV production plant in that city. With a total investment of 3 billion RMB, Sunlong plans to build 10,000 NEV buses and 30,000 logistics NEVs per year.

Kangsheng has purchased Shuchi Bus and Zhongzhi Yike: On June 15, Zhejiang Kangsheng Co., Ltd. announced that it would buy 95.42% of Yantai Shu Chi Bus and 100% share of Zhongzhi Yike. Both Shuchi Bus and Zhongzhi Yike are subsidiary bus companies of Zhongzhi New Energy Vehicle Co., Ltd. (ZEV). After cooperation of Gree and Yinlong, this is another electrical appliance enterprise entering the NEV field.

Yangste Bus signed a cooperative agreement with OptimumNano Innovation Union: On June 13, Yangste Automobile signed a strategic agreement with OptimumNano Innovation Union in Wuhan. The two will cooperate on NEVs as an opportunity to establish a long-term strategic partnership, agreeing that members of OptimumNano Innovation Union will give priority to the purchase, use, and promotion of Yangste BEVs with parts and systems produced by members of the Union.

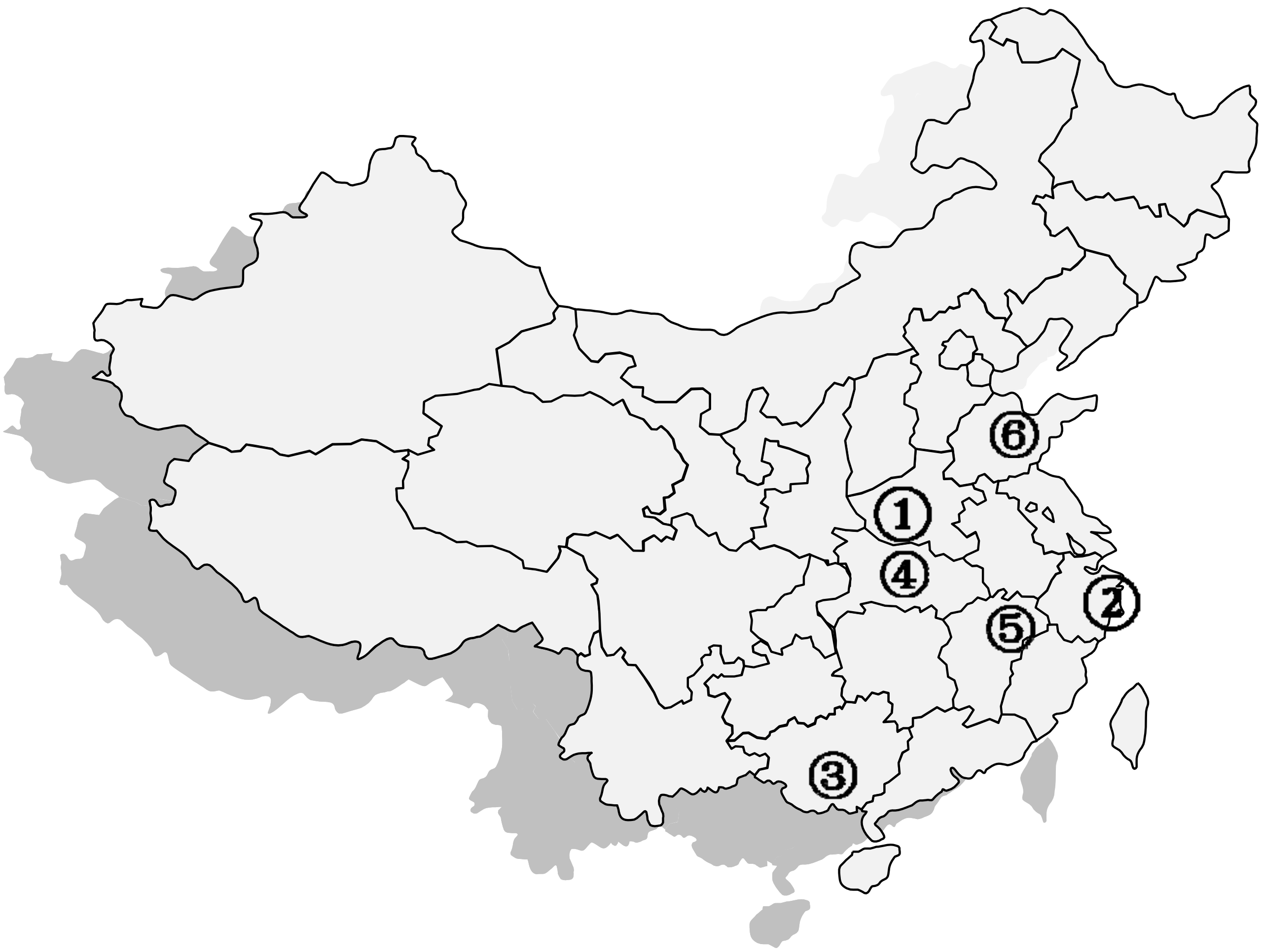
Benergy Shangrao Coach began construction on its new NEV commercial vehicle facility: On June 2, Benergy held groundbreaking ceremony in Shangrao City for its new NEV facility, which is expected to add 20,000 production capacity to the industry. The project's total investment is 7.5 billion RMB, and production is expected to start in 2018. NEV models manufactured at the location will include those intended for the public bus, tourist, and school bus markets.

CNHTC and JAC sign agreement: On May 25, CNHTC and JAC signed a strategic cooperation agreement in Jinan to cooperate on MHDT and bus. CNHTC had already provided MAN engines to JAC MHDTs. The agreement aims to enhance the cooperation to a strategic level, with the two sides now sharing powertrain resources to better compete with other OEMs in the face of future emission upgrades.

Dongfeng has no plans to merge with FAW: On May 18, Dongfeng held its 2016 shareholders' meeting in Wuhan, during which they reaffirmed there are no intentions to merge with FAW. The two companies are, however, working cooperatively on a research center project, which is now in the process of searching for a location.

Appendix: See map below corresponding to locations described in the paragraphs on the previous page.

Luoyang ①	Ningbo ②	Nanning ③
Wuhan ④	Shangrao ⑤	Jinan ⑥



APPENDIX

DATA SPECIFICATION: Trucks in China are classified by European weight categories versus U.S. categories. Medium duty trucks in China are rated between 6 and 14 tons. That is reasonably equivalent to Class 4-7 vehicles in the USA. 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 USA. 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

国家信息中心
State Information Center

ACT Research

China Commercial Vehicle OUTLOOK