The information and statistics set out in this section and other sections of this document were extracted from the report prepared by Frost & Sullivan, which was commissioned by us, and from various official government publications and other publicly available publications. We engaged Frost & Sullivan to prepare the F&S Report, an independent industry report, in connection with the [**REDACTED**]. *The information from official government sources has not been independently verified by us, the Joint Sponsors,* [**REDACTED**]*, any of their respective directors and advisers, or any other persons or parties involved in the* [**REDACTED**]*, and no representation is given as to its accuracy.*

SOURCES OF INFORMATION

This section includes information from the F&S Report, a report commissioned by us, as we believe such information imparts a greater understanding of the industry in which we operate to potential [**REDACTED**]. Frost & Sullivan is a global consulting company and an independent third party founded in 1961. We have agreed to pay a total of RMB400,000 in fees to Frost & Sullivan for its commissioned undertakings. We are of the view that the payment of such fee does not impair the fairness of the conclusions drawn in the F&S Report. Figures and statistics provided in this document and attributed to Frost & Sullivan or the F&S Report have been extracted from the F&S Report and published with the consent of Frost & Sullivan.

In preparing the F&S Report, Frost & Sullivan conducted detailed primary research which involved conducting interviews with industry insiders including leading market players, suppliers, customers and recognized third-party industry associations, and secondary research which involved reviewing company reports, independent research reports and data based on Frost & Sullivan's own research database. Frost & Sullivan also assumed that (1) China's economy is expected to maintain its steady growth in the next decade, (2) China's social, economic and political environment are expected to remain stable in the forecast period, and (3) relevant market drivers are expected to continue to drive the growth of relevant markets in the forecast period.

DIRECTORS' CONFIRMATION

After making reasonable inquiries, our Directors confirm that there has been no adverse change in the market information presented in the F&S Report since the date of the report which may qualify, contradict or have an impact on the information in this document.

OVERVIEW OF CHINA'S GROUND PASSENGER TRANSPORTATION MARKET

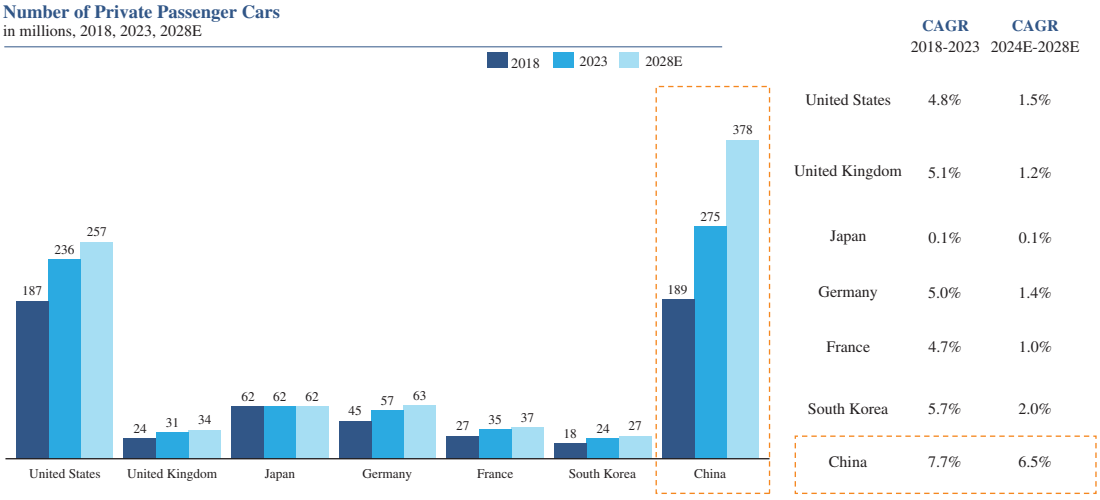
Market Overview

As the world's largest developing economy as measured by the GDP, China has a buoyant and growing demand for ground passenger transportation, primarily driven by increasing affluence, growing business activities, rapid urbanization, consumption upgrade and growing expenditure on discretionary travel. The significant market size of China's ground passenger transportation market, in terms of GTV, is expected to increase from RMB1,215.8 billion in 2024 to RMB1,949.4 billion in 2028 at a CAGR of 12.5%. Due to the impact of the COVID-19, in 2022, some major cities experienced travel restrictions under government regulatory requirements, resulting in decreased traveling demand of residents and passenger volume. Specifically, the passenger volume of urban public transportation in major cities in China has decreased in 2022, as compared to 2021, according to the F&S Report. For example, the passenger volume of urban public transportation in Beijing decreased from 5,577 million passengers in 2021 to 4,174 million passengers in 2022, according to the same source.

The car-based passenger transportation market, which comprises carpooling, taxi roadside-hailing, taxi online-hailing and ride-hailing, was RMB616.0 billion in terms of GTV and accounted for an aggregate market share of 59.5% of the total ground passenger transportation market in 2023, and is expected to increase to RMB1,238.9 billion at a CAGR of 14.4% from 2024 to 2028 and account for an aggregate market share of 63.6% in 2028.

Continuous Growth in the Number of Private Passenger Cars

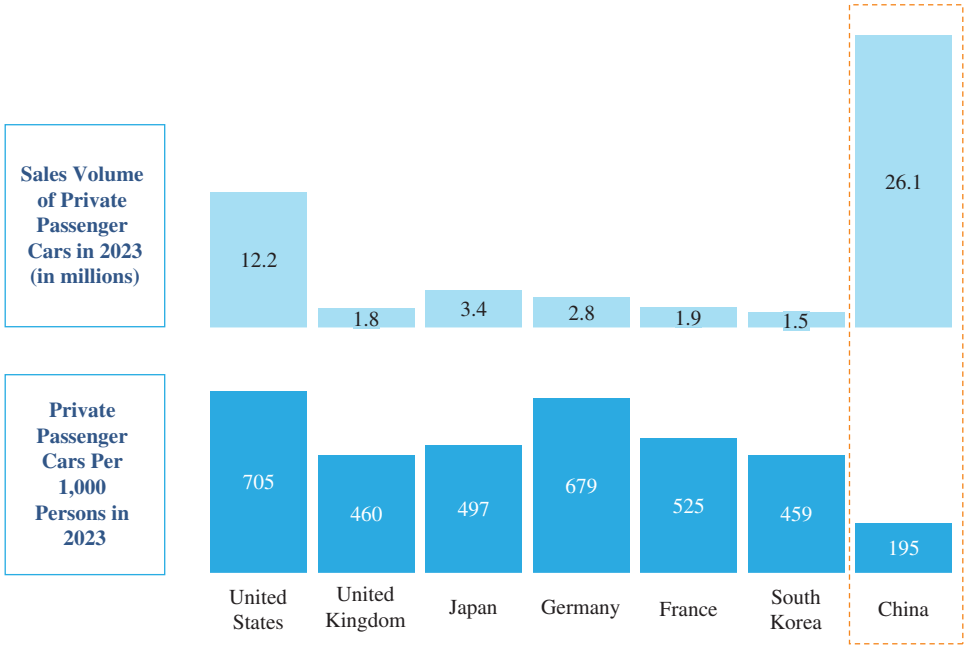
China has become the world's largest growing market for private passenger cars in 2023 with 275 million private passenger cars as of December 31, 2023, and the number is expected to reach 378 million by December 31, 2028, according to the F&S Report.[1]



Source: F&S Report

1 Private passenger cars refer to passenger cars owned by individuals and are mainly for personal use, including those also used for providing carpooling or ride-hailing services.

Despite the sheer size, the penetration rate of private passenger cars, as measured by the number of private passenger cars per 1,000 persons in China, is much lower compared to that of major developed countries. In 2023, China had 195 private passenger cars per 1,000 persons, while the United States had 705, representing significant space for growth in China for merely "catching up" in the number of private passenger cars. China ranked No.1 in 2023 in the world as measured by a 26.1 million sales volume of new private passenger cars.



Source: F&S Report

Adverse Social and Environmental Impact Associated with Vehicle Growth

The growth in the number of motor vehicles in China, including passenger vehicles, cargos and other motor vehicles, led to high vehicle density in major cities. For example, the number of motor vehicles per square kilometer in China's tier-one cities was approximately 4,097 in 2023, which was higher than that of other metropolises, such as approximately 3,349 for New York and approximately 2,559 for Tokyo. In addition, urban planning in certain areas failed to adequately accommodate the fast-growing number of motor vehicles. As a result, traffic congestion has become a common ailment nationwide, which reduces quality of life, causes energy waste and contributes to air pollution. For example, drivers in China's tier-one cities spent an average of approximately 48% of their commuting time, or 40 minutes, stuck in traffic congestion for a round-trip commute per working day in 2023, according to the F&S Report.

While regulators have taken actions to curb the growth in the total number of motor vehicles and the number of vehicles on the road, especially private passenger cars, such as annual car license plate quota and scheduled rotation in vehicle usage, these measures have had limited effectiveness in addressing traffic congestion in the long run.

The national traffic congestion problem is also caused, in part, by underutilization of transit capacity. In 2023, the average number of occupants for small-sized private passenger cars was only 1.4 people, representing a low utilization rate of approximately 30.3% of all 1,216 million available seats, according to the F&S Report.[2] In addition, during the course of their operations, taxis in China generally experience a daily vacancy rate ranging from 30% to 40% on the move and an average daily wait time of approximately three hours in 2023, according to the same source. There is untapped potential to increase the utilization rate and lower the vacancy rate of existing vehicles, through carpooling or the digital transformation of the taxi industry.

In addition, the continuous increase in the number of vehicles has contributed to environmental pollution across the country. In 2022, approximately 37% of all the cities in China failed to meet the national air quality standards. It is noteworthy that greenhouse gas emissions from vehicles are one of the major and fastest growing cause of air pollution. According to the F&S Report, in 2023, the average passenger vehicle emitted 3.02 kilograms greenhouse gas per 20-kilometer trip, and greenhouse gas emissions from the transportation sector in China accounted for approximately 10% of the total greenhouse gas emissions in the same year. The PRC government has been increasingly focused on reducing greenhouse gas emissions from vehicles and achieving carbon neutralization. For example, the MOT promulgated the 14th Five-Year Plan for Highway Development (公路"十四五"發展規劃) in 2021, emphasizing on promoting new-energy vehicles and reducing carbon emissions.

Technology-driven Prevalence of Mobile Payment and Mobility Mobile Apps

China experienced robust mobile internet development over the past decade and has accumulated a massive mobile internet user base. China's mobile internet user base reached 1,091 million with a penetration rate of 77.4% in 2023 and is expected to increase to 1,216 million with a penetration rate of 86.5% in 2028, according to the F&S Report. Along with the increasing penetration rate of mobile internet, the proliferation of advanced technologies in smart phone payment solutions and security measures, such as the integration of biometric authentication procedure, are boosting mobile payments across the country. The user base of mobile payment in China reached 953.9 million in 2023 with a penetration rate of 87.3%, and is expected to increase to 1,129.0 million in 2028 with a penetration rate of 92.9%.

2 Based on an average of 4.5 seats per small-sized private passenger car, defined as private passenger cars with two to nine seats.

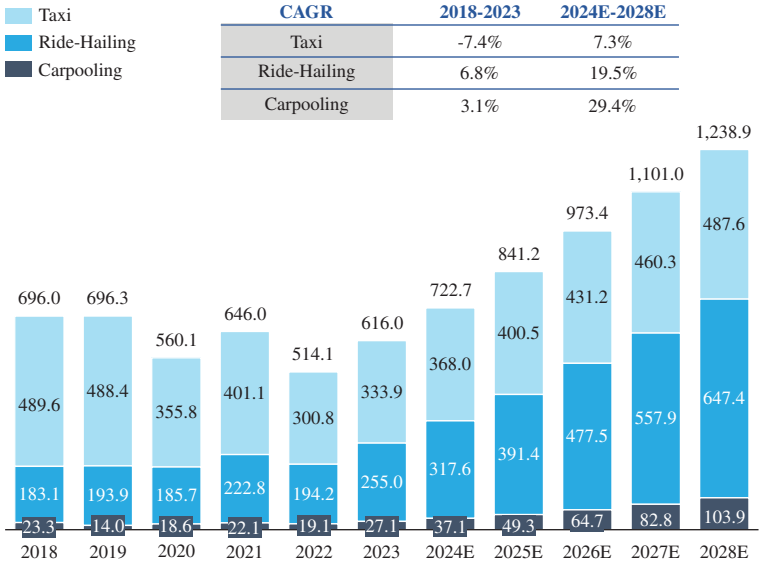
While the prevalence of mobile payment has paved the way for shifts in consumer behavior in China's ground passenger transportation market, particularly the car-based passenger transportation market, industry-wide digitalization has further contributed to the market development. Riders are becoming more accustomed to requesting rides and satisfying their mobility needs through digital tools, primarily mobile apps. According to the F&S Report, over 70% of all smartphone users in China installed more than one ride-hailing mobile apps on their devices in 2023. The proliferation of mobility mobile apps equipped with advanced technologies, such as routing, artificial intelligence and big data analytics, has been continuously contributing to the development of carpooling, taxi online-hailing, taxi roadside-hailing facilitated with digital tools, and the ride-hailing markets by, among others, matching demand and supply in an efficient and timely manner.

OVERVIEW OF CHINA'S CAR-BASED PASSENGER TRANSPORTATION MARKET

Market Overview

China's car-based passenger transportation market consists of taxi roadside-hailing, taxi online-hailing, ride-hailing and carpooling, which had a total order number of approximately 11.8 billion, 1.5 billion, 10.9 billion and 0.4 billion in 2023, respectively, according to the F&S Report. In China's car-based passenger transportation market, the respective market share of taxi and ride-hailing far exceed that of carpooling. Specifically, taxi, ride-hailing and carpooling each had a market share of 54.2%, 41.4% and 4.4% in China's car-based passenger transportation market in terms of GTV in 2023, respectively. The GTV of China's car-based passenger transportation market is expected to increase from RMB722.7 billion in 2024 to RMB1,238.9 billion in 2028 at a CAGR of 14.4%, according to the same source. The COVID-19 pandemic has adversely affected the market demand and supply, leading to fluctuation in the GTV of China's car-based passenger transportation market from 2020 to 2022. Following the adjustment of pandemic prevention policies in China, the market size is expected to recover and exceed the level before the COVID-19 outbreak by 2024.

Market Size of China's Car-Based Passenger Transportation Industry by GTV
RMB in billions, 2018-2028E



CAGR	2018-2023	2024E-2028E
Taxi	-7.4%	7.3%
Ride-Hailing	6.8%	19.5%
Carpooling	3.1%	29.4%

Source: F&S Report

Within China's car-based passenger transportation market, the carpooling market is expected to continue growing, with its GTV increasing from RMB37.1 billion in 2024 to RMB103.9 billion in 2028 at a CAGR of 29.4%, primarily because (1) while the ride-hailing market has entered into the maturity stage with over 200 market players, the carpooling market still has a limited number of market participants and more players are expected to emerge, which will generate enlarging market potential, and (2) the market size of carpooling market over the past few years were adversely affected by several extraordinary factors, including the suspension of services by a major market player and the COVID-19 outbreak, and therefore, the current market size is relatively small and expected to grow at a higher CAGR due to market recovery from the COVID-19 pandemic. Nevertheless, the potential growth of the carpooling market in the entire car-based passenger transportation industry is limited by the competition from ride-hailing service providers and other market players arising from their dominant market positions, enlarged business scale and growing base of drivers. In comparison, the GTV of China's taxi market is expected to grow at a CAGR of 7.3% from 2024 to 2028, and the GTV of China's ride-hailing market is expected to grow at a CAGR of 19.5% from 2024 to 2028. As the largest segment in China's car-based passenger transportation market, the taxi market accounted for a market share of 54.2% in terms of GTV in 2023, and is expected to continue to account for a significant market share of 39.4% by 2028, while the ride-hailing market and the carpooling market are expected to account for a market share of 52.2% and 8.4%, respectively, in terms of GTV in China's car base passenger transportation market by 2028.

Comparison of Mobility Modes in China's Car-based Passenger Transportation Market

China's car-based passenger transportation market comprises three major distinct mobility modes, including carpooling, taxi and ride-hailing. In addition, an aggregation platform mode has emerged, which allows riders to have one-click access to services on several mobility options through a unified portal. As illustrated by the following chart, the three major mobility modes differ from each other in several aspects.

	Carpooling	Traditional Taxi	Ride-hailing[1]	
Market Share[2]	4.4%	54.2%	41.4%	
Mobility Supply & Management	• Private car owners	• Taxi companies	• Mix of cars from individual drivers and rental companies	• Ride-hailing platform
Regulatory Restriction	• Only allowed to be provided by private passenger cars for noncommercial purposes • Subject to regulations promulgated by municipal authorities on, for example, the limitation on the number of carpooling trips per day and the standard of cost sharing	• Provided for commercial purposes • Subject to regulations on the business operations of passenger transport, such as requirements of licenses and permits	• Provided for commercial purposes • Subject to regulations on the business operations of passenger transport, such as requirements of licenses and permits	
Operating Permit in Transportation Industry	• Vehicle: no permit requirement • Driver: no permit requirement	• Vehicle: Road Transportation Permit (道路運輸證) • Driver: Cruising Driver Permit (巡遊出租汽車駕駛員證)	• Platform: Ride-hailing Operation Permit (網絡預約出租汽車經營許可證) • Vehicle: Ride-hailing Vehicle Permit (網絡預約出租車運輸證); 44.4% of vehicles providing ride-hailing services in 2023 obtained such permit[3] • Driver: Ride-hailing Driver Permit (網絡預約出租汽車駕駛員證)	
Service Provider	• Private car owners • Cost sharing	• Professional drivers • Main source of income	• Mainly professional drivers[4] • Main source of income	• Professional drivers • Main source of income
Cost of Subsidies per Order	• Low	• Low	• High	
Nature of the Mobility Mode	• Collaborative	• Commercial	• Commercial	
Pricing	• 0.3x-0.5x of local taxi price	• 1.0x of local taxi price	• Economy: 0.8x of local taxi price • Premium: 1.8x-2.0x of local taxi price • Luxury: 3.6x-4.0x of local taxi price	
Revenue of Online-hailing Platform	• Commission rate [5] (8%-10% of the fare charged)	• Commission rate[5] (0%-6% of the fare charged)	• Commission rate[5] (20%-30% of the fare charged) for platforms with mobility supply sourced from third-parties	• 100% of the fare charged as revenue for platforms with self-operated fleets
Growth Potential	• High	• Limited for traditional taxi • Could benefit from digital transformation with increased utilization efficiency	• High	
Examples of Major Players	• Dida • Company A[6]	• A traditional taxi company in Beijing, with over 20,000 taxis, providing roadside taxi-hailing, car rental and other services. • A public company in Shanghai listed on the Shanghai Stock Exchange, with over 9,000 taxis, providing traditional roadside taxi-hailing services.	• Company B[6][7], a mobility platform providing ride-hailing, taxi online-hailing, carpooling and other services, with a market share of 76.0% and 17.3% in China's ride-hailing market and carpooling market, respectively, in terms of GTV in 2023.	• Company E[7]

Source: F&S Report

(1) There are two different modes depending on the underlying operation strategies, including (i) ride-hailing platforms that provide ride-hailing services by themselves, and (ii) aggregate ride-hailing companies that direct users to other ride-hailing platforms and in general do not directly provide ride-hailing services.

(2) Represents the respective market shares of the three mobility modes in China's car-based passenger transportation market in terms of GTV in 2023.

(3) In 2023, there were a total of 6.29 million ride-hailing vehicles, among which approximately 2.79 million obtained a permit.

(4) Approximately 70% of ride-hailing drivers are professional drivers who drive for more than six hours per day.

(5) Charged to private car owners and ride-hailing drivers.

(6) For detailed description of the market player, see "—Overview of China's Carpooling Market—Competitive Landscape."

(7) For detailed description of the market player, see "—Overview of China's Taxi Market—Competitive Landscape."

As illustrated in the table above, compared to ride-hailing services business, carpooling services business is characterized by, among others, lower pricing and collaborative mobility mode. Specifically, as opposed to ride-hailing, carpooling is only allowed to be provided by private passenger cars which are not for commercial purposes, according to applicable laws and regulations, there is no operation cost associated with mobility supply and management nor requirements on operating permits and licenses. In addition, as private car owners usually have predetermined destinations for their trips, and the ride fees they receive usually represent sharing of travel cost, there is generally no need for carpooling platforms to provide heavy subsidies. Due to these features, carpooling platforms can charge lower service fees, compared to other mobility modes (particularly ride-hailing) and, at the same time, achieve profitability. Carpooling also features collaborative nature compared to other mobility modes, as it helps to reduce energy consumption and emission, increase the utilization rate and lower the vacancy rate of existing vehicles.

On the other hand, carpooling has its limitations as compared to ride-hailing. As carpooling is not an on-demand commercial mobility service and mandates a high similarity level of travel itineraries, potential carpooling riders may not always get matched in a timely manner, or at all. As such, the market size of carpooling may not be comparable to that of ride-hailing. In 2023, the market share of ride-hailing and carpooling in terms of GTV in China's car-based passenger transportation market was 41.4% and 4.4%, respectively, according to the F&S Report. In addition, while we primarily compete with other carpooling marketplace service providers, we also face competition from ride-hailing service providers and other market players in China's car-based passenger transportation market. Moreover, the competitive landscape has further evolved due to the changes in the major players. Specifically, as Company B, who also provides taxi online-hailing and ride-hailing services, officially relaunched its carpooling marketplace services in December 2019 and gained an increased market share in terms of GTV from 10.8% in 2020 to 19.6% in 2021, which then remained relatively stable at 18.4% in 2022 and 17.3% in 2023, our market share in China's carpooling market was negatively affected. For details of the market player, see "—Overview of China's Carpooling Market—Competitive Landscape."

According to the F&S Report, taxi and ride-hailing services under the commercial mobility mode alone cannot fully address the mobility demand. A mobility platform with a combination of commercial and collaborative mobility modes can enhance the efficacy and efficiency of the overall transit capacity, considering the unbalanced demand and commercial supply during peak and off-peak hours.

To demonstrate the distinction between carpooling and ride-hailing mobility modes, the following table sets forth the comparison of our key operating data in 2023 with our peers in the carpooling sector and other major players in the ride-hailing sector.

		Carpooling				Ride-Hailing			
Unit Economic Indicators (Calculated from Average GTV per Order)		Dida	Company A[1]	Company B[1]	Average	Company G[2]	Company B[1]	Company E[1]	Average
	Average GTV per Order	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Service Fee Rate[4]	9.7%[3]	9.9%	9.8%	9.8%	29.2%	27.1%	25.0%	27.1%
	Net Service Fee Rate[4]	7.8%	7.6%	7.9%	7.8%	11.2%	9.8%	10.0%	10.3%
	Drivers' Commissions[5]	89.7%	89.3%	89.5%	89.5%	67.0%	70.9%	73.0%	70.3%
	Drivers' Incentives	1.1%	1.3%	1.2%	1.2%	6.0%	9.1%	9.0%	8.0%
	Riders' Incentives and Marketing Fees	0.7%	0.8%	0.9%	0.8%	12.0%	8.2%	6.0%	8.7%
	Drivers' Incentives/ Revenue	11.3%	13.1%	12.2%	12.2%	20.6%	33.6%	36.0%	30.1%
	Riders' Incentives and Marketing Fee/ Revenue	7.2%	8.1%	9.2%	8.2%	41.1%	30.2%	24.0%	31.8%

Source: F&S Report

(1) For detailed description of the market players, see "—Overview of China's Carpooling Market—Competitive Landscape" and "—Overview of China's Taxi Market—Competitive Landscape."

(2) Company G is an online ride-hailing platform with a focus on internet and new energy transportations. Company G is a private company established in 2015 and headquartered in Hangzhou, China with overseas operation in Paris.

(3) We have changed our service fee rate for the carpooling marketplace services to approximately 10% since February 2023.

(4) While the numerator of service fee rate is the revenue generated from the service fee charged by us, the numerator of net service fee rate is calculated by subtracting the value-added tax at the rate of 6%, drivers' incentives, riders' incentives and marketing fees from the revenue generated from the service fee charged by us. See "Glossary" for the calculation of the service fee rate and the net service fee rate.

(5) For ride-hailing platforms, the indicator of drivers' commissions applies only when they do not operate fleets themselves, but instead source mobility supply from third parties, such as individual drivers or rental companies. When they provide services with their self-operated fleets, 100% of the ride fare is charged as revenue. For instance, Company E has both mobility supply modes, and the indicator of drivers' commissions applies specifically for instances where they use third-party mobility supply.

As illustrated above, the notable differences in unit economic indicators generally exist between carpooling platforms and ride-hailing platforms due to their different business models. Specifically, in 2023, (1) the average service fee rate of major carpooling platforms was approximately 9.8%, as compared to that of approximately 27.1% of major ride-hailing platforms; (2) the average net service fee rate of major carpooling platforms was approximately 7.8%, as compared to that of approximately 10.3% of major ride hailing platforms; (3) drivers' incentives of major carpooling platforms accounted for, on average, approximately 1.2% (as a percentage of GTV) and approximately 12.2% (as a percentage of revenue), as compared to that of approximately 8.0% and 30.1% of major ride-hailing platforms, respectively; and (4) riders' incentives and marketing fees of major carpooling platforms accounted for, on average, approximately 0.8% (as a percentage of GTV) and approximately 8.2% (as a percentage of revenue), as compared to that of approximately 8.7% and 31.8% of major ride-hailing platforms, respectively. Such notable differences result from the different business models and operating costs between carpooling platforms and ride-hailing platforms. Ride-hailing platforms typically incur greater expenses for rider incentives and marketing campaigns to bolster user engagement, leading to a higher level of platform operational costs and consequently, lower commissions left for drivers. In comparison, carpooling platforms have comparatively lower operating costs, allowing them to charge drivers a lower service fee and leave them with higher commissions. As a result, drivers on carpooling platforms are entitled to a higher percentage of commissions as compared to that of ride-hailing platforms. In 2023, the average drivers' commission on major carpooling platforms was approximately 89.5%, while the average drivers' commission on major ride-hailing platforms was approximately 70.3%. Furthermore, disparities in unit indicators among major carpooling platforms are less pronounced compared to their counterparts in China's ride-hailing sector. Among the carpooling platforms in China, our service fee rate and net services fee rate are comparable to other major industry players, with only minor variances in drivers' and riders' incentives. According to the F&S Report, certain major industry players, such as Company A, tend to prioritize drivers' incentives to boost order response rates. For instance, drivers' subsidies provided by Company A represented 1.3% of its 2023 GTV per order, with riders' incentives at 0.8%. Our incentives for drivers and riders stood at 1.1% and 0.7% of GTV per order in 2023, respectively, as we aim to encourage both private car owner and rider engagement.

OVERVIEW OF CHINA'S CARPOOLING MARKET

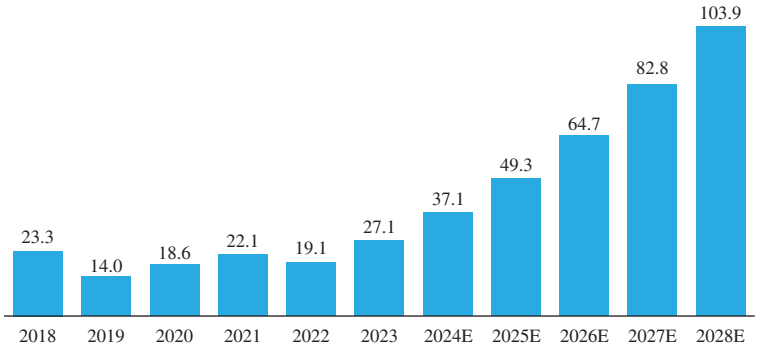
Market Overview

Carpooling refers to the situation where two or more individuals travel in the same car to reduce the number of single-occupant vehicles on the road. As such, carpooling is beneficial for the environment and the society as it reduces the number of empty seats on the roads, which in turn reduces vehicles emissions and mitigates traffic congestion. In September 2014, Dida became the first company in China providing carpooling services, marking the beginning of the carpooling industry in China.

The GTV of China's carpooling market fluctuated from 2018 to 2023. The GTV increased rapidly from RMB19.3 billion in 2017 to RMB23.3 billion in 2018, indicative of the increasing market reception of carpooling as a mobility option in China. The GTV, however, decreased in 2019, due to the suspension of services by a major market player. The GTV subsequently took two years to recover to the level comparable to that before the COVID-19 outbreak, reaching RMB22.1 billion in 2021, but then decreased to RMB19.1 billion in 2022 due to the continued impact of COVID-19 resurgence. The penetration rate of carpooling in China in terms of travel distance experienced similar fluctuation, which decreased from 0.37% in 2017 to 0.19% in 2019, and recovered to 0.25% in 2021 yet further fluctuated to 0.21% in 2022. Particularly, the COVID-19 pandemic imposed unbalanced impact on the carpooling demand and supply among different cities. For example, due to the COVID-19 resurgence, the restrictions in Shanghai lasted for over two months from March in 2022. As a result, the passenger volume of urban public transportation dropped by 77.4% from the first quarter to the second quarter in 2022 in Shanghai. In comparison, the passenger volume of urban public transportation decreased by 3.9% in Guangzhou and 41.2% in Shenzhen in the same periods.

Moving forward, the GTV of China's carpooling market is expected to reach RMB103.9 billion in 2028 at a CAGR of 29.4% from 2024 to 2028, along with the growth in the carpooling user base, considering that (1) the macro-economic environment of China continues to improve, as evidenced by the continual growth of China's GDP and disposable income in the past five years and the increased urbanization rate of China from 61.5% in 2018 to 66.2% in 2023, (2) the number of car-based passenger transportation, especially private cars, increased in the past five years, (3) favorable government policies have been promulgated to encourage and support the development of carpooling to fully utilize the existing vehicle resources and reduce carbon emission, (4) the current carpooling market had a relatively small size due to the COVID-19 pandemic and is expected to grow at a higher CAGR following the recovery from COVID-19 as carpooling services are highly related to passengers' traveling demand and travel policies, and (5) as a major player who previously suspended its carpooling business relaunched its carpooling marketplace services and a major player entered into the market in 2019, the carpooling market is expected to change from fluctuation during the past years to achieving stable growth in the next five years. In addition, the penetration rate of carpooling in terms of travel distance is expected to increase from 0.36% in 2024 to 0.80% in 2028. According to the F&S Report, travel distance is an industry recognized metric for penetration rate when used in the context of carpooling, considering the collaborative but not commercial mobility nature of carpooling and its focus on increasing the utilization rate and lowering the vacancy rate of existing vehicles to achieve ESG benefits, which are factors better measured by travel distance.

Market Size of China's Carpooling Industry by GTV
RMB in billions, 2018-2028E



Source: F&S Report

Key Drivers

The increasing adoption of carpooling as a popular mobility option is primarily driven by the following factors.

- *Value for money*. Carpooling reduces mobility costs for both carpooling riders and private car owners providing carpooling rides. While riders can enjoy a private and comfortable trip comparable to taxi rides for no more than half the price on average, private car owners can save money on gas and toll expenses by sharing costs with one or more carpooling riders along their journeys.

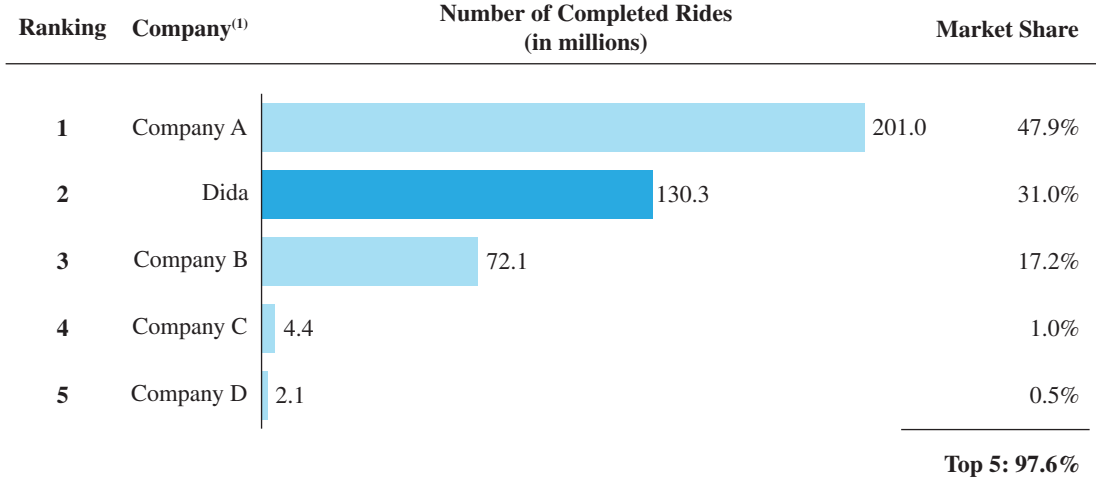
- *Demands for personalized mobility.* Carpooling serves for the diversification of mobility options and better meets riders' personalized needs as compared to other public transportation options, such as intra-city bus and rail transportation. As riders may request rides on a pre-arranged basis, carpooling can well meet riders' demands in various scenarios, such as daily commuting, long-distance travel during vacation time, and homecoming during holiday seasons. At the same time, carpooling can effectively meet personalized needs, such as carrying bulky luggage and pets, through pre-arranged matching and communication between riders and private car owners.

- *Increasing market acceptance of carpooling*. Supported by advanced technologies, such as routing, artificial intelligence and big data analytics technologies, market players in China's carpooling market can continuously improve user experience to attract users by improving the response rate, reducing average wait time and assuring riders of robust safety measures. Furthermore, because of the increased awareness of the social and environmental impacts of mobility choices, an increasing number of people are willing to provide and take carpooling rides as a sustainable mobility option. The user network in the carpooling market continues to expand, creating a virtuous circle to drive the market from both supply and demand perspectives.

- *Favorable government policies*. In recent years, Chinese regulators at various levels released various policies and guidelines to tackle traffic congestion and carbon emissions, including a commitment to promote carpooling under a sound regulatory framework. For example, in 2019, the CPC Central Committee and the State Council issued the Outline for Building China's Strength in Transportation (交通強國建設綱要) to establish intelligent, secure, green, and shared transportation, and alleviate the urban traffic congestion. In 2020, the MOT and the NDRC issued the Green Travel Action Plan (綠色出行創建行動方案), urging local authorities to promote the adoption of environmental-friendly mobility modes and lower the total volume of car traffic. In 2022, the MOT, the MIIT, the Ministry of Commerce and several other authorities jointly revised and re-issued the Outline for the Construction of Nation with Strong Transportation System (網絡預約出租汽車經營服務管理暫行辦法) originally promulgated in 2016, showing clear support and encouragement for carpooling, which is not subject to regulations of ride-hailing that limit local operation permission and number of licenses issued.

Competitive Landscape

China's carpooling market is highly concentrated, with the top three market players accounting for a market share of 96.1% in terms of the number of carpooling rides in 2023. In 2023, Dida ranked No.2 in China's carpooling market with a market share of 31.0% in terms of the number of carpooling rides. The following chart illustrates the market shares of the top five market players in China's carpooling market in terms of the number of carpooling rides in 2023.



Source: F&S Report

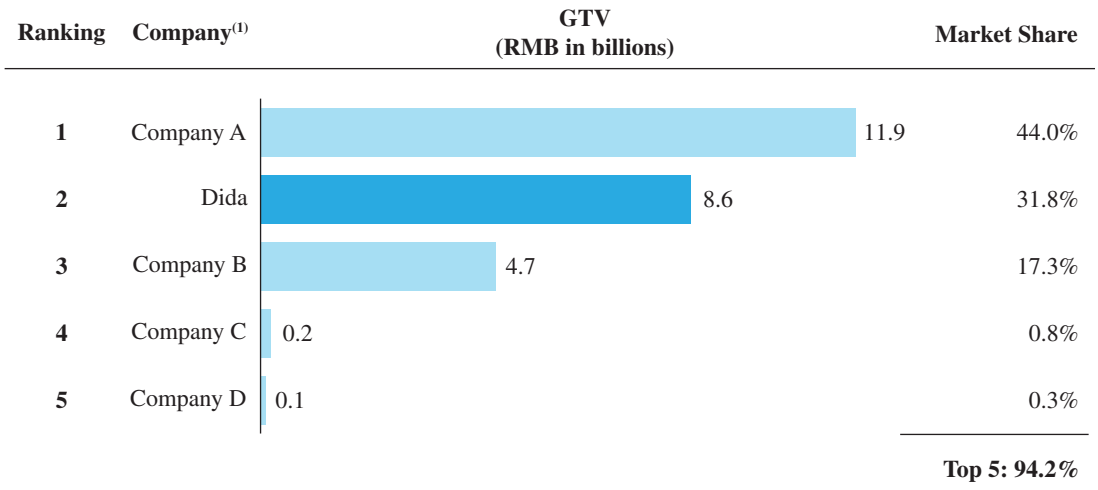
(1) Company A is a professional mobility platform providing users with mobility tools and services, including bike-sharing, scooter, battery exchange and carpooling services. Company A is a private company established in 2016 and headquartered in Shanghai, China.

Company B is a one-stop mobility and lifestyle platform and a public company listed on OTC Pink market. Company B provides taxi online-hailing, carpooling, economy ride-hailing, premium ride-hailing, luxury ride-hailing, bus, driver service, corporate transportation service, bicycle sharing, electric scooter sharing, vehicle care, delivery and payment services in Asia, Latin America and Australia.

Company C operates a carpooling platform and also provides errands running services where users can request drivers to deliver or pickup packages. Company C is a private company established in 2014 and headquartered in Hangzhou, China.

Company D was established in Shanghai in 2018. It provides mobility services including online ride-hailing, automobile service for enterprises, automobile rental service and taxi service. Company D mainly operates in Yangtze River Delta region, China.

In addition, Dida ranked No. 2 in China's carpooling market with a market share of 31.8% in terms of the GTV in 2023. The following chart illustrates the market shares of the top five market players in China's carpooling market in terms of the GTV in 2023.



Source: F&S Report

(1) See notes in the table above.

Carpooling platforms in China are typically marketplaces that connect private car owners with riders with similar travel itineraries. As a result, it is crucial for the carpooling platforms to maintain a sizable user base to ensure meaningful response rates and good user experience which, in turn, enables them to scale their operations and achieve robust financial performance. As such, the carpooling market in China is projected to be ultimately dominated by a few large players. Therefore, the current top players have built a barrier to entry against new entrants.

Although Dida launched carpooling marketplace services in 2014 as the first mover in China, the carpooling market is still at a nascent stage and is rapidly evolving as an emerging mobility mode in China. Carpooling was first defined in the nationwide governmental policy in July 26, 2016 when the General Office of the State Council promulgated the Guidelines on Deepening Reform and Promoting the Healthy Development of the Taxi Industry (國務院辦公廳關於深化改革推進出租汽車行業健康發展的指導意見). During the past years, the carpooling market has experienced fluctuation due to various factors such as the COVID-19 pandemic. The penetration rate of carpooling remains relatively low at 0.28% in terms of travel distance in 2023, and is expected to increase to 0.80% in 2028. Moving forward, the GTV of China's carpooling market is expected to develop rapidly, along with the growth in the carpooling user base, recovery from the COVID-19 pandemic, business restoration and development of major market players, among other market drivers.

Carpooling service is highly regional. There are substantial differences in the regions of operation and business strategies among the major carpooling market players. During the past few years, the COVID-19 pandemic occurred and resurged in different regions in China with different level of severity, and the carpooling service in different cities or provinces responded differently. For example, Shanghai experienced significant local outbreaks from March 2022 to June 2022, which caused the temporary shutdown of carpooling services there. Shanghai contributed a GTV of RMB712.2 million and RMB466.0 million in 2021 and 2022, respectively, accounting for 9.2% and 7.7% of the total GTV generated from our carpooling marketplace services in the same years, respectively. There were also regional resurgence in the cities where we had major operations, such as Beijing from March to May and from November to December in 2022, Shanghai from July 2021 to September 2021, and Chengdu and Chongqing in July, August and November 2021, where governmental restrictive measures were implemented. Among these cities, Beijing contributed a GTV of RMB331.6 million and RMB226.0 million in 2021 and 2022, respectively, accounting for 4.3% and 3.7% of the total GTV generated from our carpooling marketplace services in the same years, respectively; Chengdu contributed a GTV of RMB387.9 million and RMB361.0 million in 2021 and 2022, respectively, accounting for 5.0% and 6.0% of the total GTV generated from our carpooling marketplace services in the same years, respectively; and Chongqing contributed a GTV of RMB344.0 million and RMB325.4 million in 2021 and 2022, respectively, accounting for 4.4% and 5.4% of the total GTV generated from our carpooling marketplace services in the same years, respectively. By comparison, certain other cities where our operations were not as significant as other major competitors were less impacted by COVID-19 than cities in other parts of China. Our carpooling marketplace services have a broad geographical coverage and an extended user network in China. During the Track Record Period, only 10 cities contributed over 3% of the total GTV generated from our carpooling marketplace in at least one reporting period. As a result, we were impacted by the precautionary and control measures adopted in different regions in response to the COVID-19 outbreak.

Such disparity in terms of geography and magnitude of impact has affected the competitive landscape. For example, Company A has focused on the local market of Guangdong province. Company A also enjoyed the first-mover advantage in Guangdong province where it has achieved fast development during past few years. Moreover, the competitive landscape has further evolved due to the changes in the major players. Specifically, Company B temporally suspended its carpooling marketplace service from August 2018 to December 2019. After that, Company B officially relaunched its carpooling marketplace service by increasing marketing promotions and paying substantial subsidies to users, aiming to return to the carpooling market and increase its market share. As such, its market share in terms of GTV increased rapidly from 10.8% in 2020 to 19.6% in 2021 and then remained relatively stable at 18.4% in 2022 and 17.3% in 2023, which impacted our position in China's carpooling market.

As a result of the disparity in terms of geography and magnitude of impact, coupled with the evolution in the competitive landscape, our GTV generated from carpooling marketplace services did not keep pace with the overall market in 2021 and decreased in 2022, and our market share decreased from 38.1% in 2021 to 32.5% in 2022 in terms of the number of carpooling rides and from 35.4% in 2021 to 31.8% in 2022 in terms of the GTV.

OVERVIEW OF CHINA'S TAXI MARKET

Digital Transformation of China's Taxi Industry

Despite its clear dominance with a market share of 54.2% in terms of GTV in China's car-based passenger transportation market in 2023, according to the F&S Report, China's taxi industry has struggled in recent years to achieve a sufficient level of operating efficiency and customer satisfaction, as the industry has been slow to adapt to the digitalization in the internet era and the challenges brought by the emergence of online ride-hailing platforms. Specifically, the taxi industry faces significant challenges brought by China's burgeoning ride-hailing market, primarily due to (1) more convenient chauffeured services and higher service quality, (2) abundant supply of fleets by ride-hailing platforms, and (3) heavy subsidies provided by ride-hailing platforms to attract consumers.

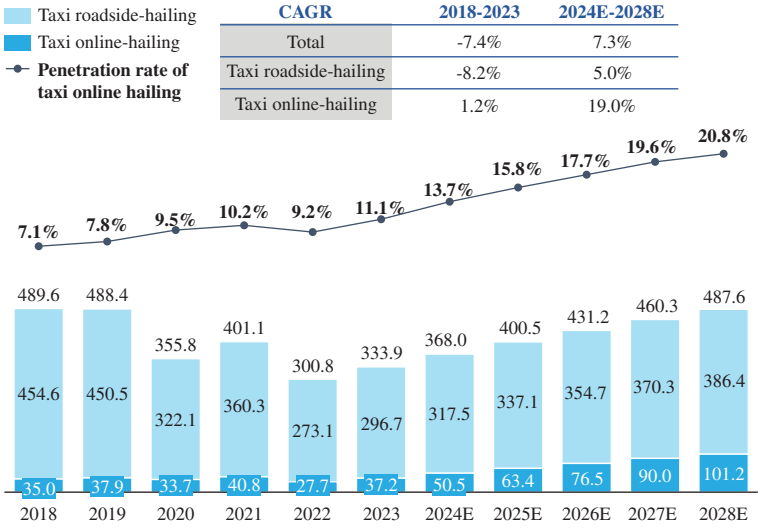
Consumers' shift from taxis to ride-hailing has led to reduced income for taxi drivers and longer vacancy time between pick-ups. Nevertheless, taxis still have unique advantages in China's car-based passenger transportation market with its cruising mode. For instance, during peak hours when it takes more time to wait for online-hailed vehicles due to traffic congestion, taxi roadside-hailing mode has relatively higher efficiency and flexibility as taxi drivers can identify and stop promptly for riders in need by the roadside when cruising in busy areas.

Faced with the disruptive challenges, China's taxi industry is poised for a digital transformation to regain its competitive edge in China's car-based passenger transportation market. As a starting point, taxi online-hailing has improved the operational efficiency compared to traditional roadside-hailing in several aspects, such as time-saving and high efficiency for order request, dispatch of taxis based on heat map, real-time traffic flow and statistics of ridership, optimal route planning, enhanced security during the trip, convenient payment methods, and other post-trip benefits, including easy access to comment or complaint and facilitation of lost and found. Moreover, starting in 2018, a few platforms in China acted on the market opportunity and began to provide solutions to help improve the hailing efficiency and utilization rate of taxis, provide for more effective fleet management and enhance the service quality. For example, in addition to online-hailing apps, Dida introduced the digitally-assisted roadside-hailing service, covering the mass population's diverse mobility needs, as well as digital tools such as the *Taxi Smart Code* to improve the riding experience for traditionally roadside-hailed taxi orders.

Current Market Dynamics

The taxi market has the largest market share and yet the lowest digitalization rate in China's car-based passenger transportation market, according to the F&S Report. Moreover, traditional roadside-hailing continues to dominate the industry with a market share of 88.9% in terms of GTV in 2023, according to the same source. Although the online-hailing mode has been well-educated in China, the roadside-hailing mode remains advantageous in certain use cases, such as relatively higher efficiency in peak hours compared to the online-hailing mode. Therefore, on the one hand, online-hailing and roadside-hailing will continue to evolve in parallel, serving the mass population's diversified and distinct travel needs. On the other, while the market share of online-hailing is currently projected to reach 20.8% by 2028, it has not accounted for the development of digitally-assisted roadside-hailing or other ways of emerging taxi hailing in the rapidly evolving internet era.

Market Size of China's Taxi Industry by GTV
RMB in billions, 2018-2028E



Source: F&S Report

According to the F&S Report, the negative CAGRs of the taxi industry and the taxi roadside-hailing industry and the relatively low CAGR of the taxi online-hailing industry from 2018 to 2023 are mainly due to the adverse impact caused by the public health events. Particularly, there was a 22.0% year-over-year decrease in passenger volume within the taxi industry in 2022, thereby establishing a lower baseline and contributing to the negative CAGR for the period from 2018 to 2023. However, it has been expected that the market size of China's taxi industry would resurge and maintain a positive growth in the post-pandemic era. According to the F&S Report, in 2023 the passenger volume of China's taxi industry increased by 13.2% compared with the previous year. Furthermore, the penetration rate of online-hailing in China's taxi industry is expected to grow from 13.7% in 2024 to 20.8% in 2028, further fueling the market growth of China's taxi online-hailing industry.

Key Drivers

The development of China's taxi market, especially China's taxi online-hailing market, is primarily driven by the following factors.

- *Favorable government policies and the digital transformation*. During the past decades, fast-growing car ownership in China and imperfect urban infrastructure planning have made traffic congestion a common ailment in China. Local governments have been taking actions to mitigate the congestion, such as annual car license plate quota, scheduled rotation in vehicle usage, and promotion of public transportation, including taxis. Furthermore, the digital transformation of the taxi industry has gradually improved the riding experience and the utilization rate of taxis. For example, the MIIT issued the Notice on Effectively Solving the Difficulties of the Elderly Using Intelligent Technology and Facilitating the Daily Transportation of the Elderly (關於切實解決老年人運用智能技術困難便利老年人日常交通出行的通知) in 2021, aiming to promote the digitalization of the traditional taxi market by encouraging digitally-assisted taxi hailing services.

- *Deployment of electric taxis*. Compared with diesel, gasoline or natural gas vehicles, electric vehicles have minimal environmental impact as they do not produce greenhouse gas emissions. In recent years, supported by the progress and breakthrough of new energy technologies and governmental support, electric taxis have become popular in China. An increasing number of cities have imposed the proportion requirements for electric taxis, such as Beijing and Shenzhen. Taxi companies may thereby benefit from the reduced procurement costs of vehicles and offer lower price to attract passengers, which is expected to further boost the growth of China's taxi industry. Furthermore, the prevailing of electric taxis will facilitate the digital transformation of China's taxi industry, as they are generally deployed with more advanced digitalized systems compared to traditional ones for seamless deployment of taxi management softwares and digital toolkits.

- *Growing demands for online-hailing services.* Traditional roadside-hailing is featured with unsatisfactory service quality and inefficient pick-up mode. The growing demands of passengers, especially the new generation with the habit of using mobile payments and mobile apps, for efficient online-hailing, pre-arranged itineraries and chauffeured services have been boosting the emergence and development of online taxi-hailing platforms. Moving forward, the taxi industry is expected to continue to improve passenger experience with increasing integration with online taxi-hailing platforms.

- *Technology improvement*. With the rapid development of big data and 5G technologies in recent years, taxi online-hailing platforms have increased the response and pick-up rates of taxi online-hailing through algorithm optimization and other technology upgrades. For example, with upgraded matching algorithms, taxi online-hailing platforms can guide drivers to areas in high-demand based on the analysis of real-time user demand, which improves the effectiveness of matching and hailing. Meanwhile, new features, such as security detection and rating system, have further improved the riding experience.

Development Trends

Going forward, the taxi market will benefit from the continued and accelerated digital transformation process in various aspects, including improved user experience, upgraded industry service standards, enhanced utilization rate of fleets, and optimized management by taxi companies and associations. Smart traffic management achieved through digital tools, such as data sharing and fleet monitoring by online platforms with the relevant industry participants, may also be underway alongside such development. The future development of China's taxi industry will be affected by the following trends:

- *A shift towards the "Internet+" era*. The significant potential of the internet will be further recognized throughout the traditional taxi market. In addition to taxi riders, other participants in China's taxi market, such as taxi drivers, companies and associations, began to embrace digital tools to level up their service levels and operational efficiency. They have become more willing to cooperate with online platforms equipped with advanced technologies and established user network. For example, Xi'an Taxi Management Bureau entered into strategic cooperation with Dida in 2019, with all taxis in Xi'an city connecting to Dida's platform.

- *Wide application of big data analytics*. The digital transformation of China's taxi market will be driven by big data analytics conducted by online platforms. Regulators, city planners and policymakers can gain data-driven insight into transportation congestion, taxi hailing patterns at different localities and times, and the fleet efficiency and service quality in collaboration with online platforms.

- *Continuous commitment to improving service quality and user experience*. Many taxi drivers, companies and associations have realized the need to re-examine their legacy business practices and proactively raise service standards and quality to overcome challenges brought by other new mobility modes. In addition, some online platforms, such as Dida, seek to expedite the digitalization of the taxi market to further improve user experience.

- *Rapidly evolving regulatory environment*. The PRC government began to tighten regulations on ride-hailing in a manner comparable to taxis. For example, the Interim Measures for the Management of Online Ride-Hailing Operation and Service (網絡預約出租汽車經營服務管理暫行辦法) specified legal and operational requirements for platforms, drivers and vehicles involved in the ride-hailing business. More importantly, all of them must obtain a relevant permit or license, which is not readily accessible. The PRC government has also paid greater attention to the development of the taxi market, as it plays a vital role in fulfilling ground passenger mobility demand. For example, the General Office of the State Council promulgated the Guidelines on Deepening Reform and Promoting the Healthy Development of the Taxi Industry (國務院辦公廳關於深化改革推進出租汽車行業健康發展的指導意見) in 2016 to promote the transformation of the traditional taxi market. The evolving regulatory environment may foster healthy competition between the two mobility modes.

Competitive Landscape

The digital transformation of China's taxi industry is still at an early stage, with a small portion of taxi orders originated online or through digital tools. According to the F&S Report, the top five online platforms in China's taxi market accounted for an aggregate market share of 4.09% in the entire taxi market in 2023 as measured by the number of taxi online-hailing rides, among which Dida ranked No. 4 with a market share of 0.09%. In addition, the top five online platforms in China's taxi online-hailing market accounted for an aggregate market share of 36.2% in terms of the number of taxi online-hailing rides in 2023, among with Dida ranked No. 4 with a market share of 0.8%.

Ranking	Company[1]	Number of Taxi Online-hailing Completed Rides (in millions)	Market Share[2]
1	Company B	487.2	3.67%
2	Company F	18.5	0.14%
3	Company E	16.4	0.12%
4	Dida	12.1	0.09%
5	Company D	8.9	0.07%
			Top 5: 4.09%

Source: F&S Report

(1) Company B is a one-stop mobility and lifestyle platform and a public company listed on OTC Pink market. Company B provides taxi online-hailing, carpooling, economy ride-hailing, premium ride-hailing, luxury ride-hailing, bus, driver service, corporate transportation service, bicycle sharing, electric scooter sharing, vehicle care, delivery and payment services in Asia, Latin America and Australia.

Company E operates an online ride hailing and smart travel platform using centrally purchased new energy automobiles. Company E is a private company established in 2019 and headquartered in Nanjing, China.

Company F is an online ride-hailing company launched in 2017 by a Chinese lifestyle services platform which is a public company listed on the Stock Exchange. Company F provides self-run ride-hailing and taxi-hailing services. It also has expanded its service offerings through partnerships with a number of ride-hailing companies. Company F is headquartered in Shanghai, China.

Company D was established in Shanghai in 2018. It provides mobility services including online ride-hailing, automobile service for enterprises, automobile rental service and taxi service. Company D mainly operates in Yangtze River Delta region, China.

(2) The market share is calculated by dividing the completed taxi online-hailing orders of each player by the completed orders of the entire taxi market, including the taxi roadside-hailing market and the taxi online-hailing market, as (1) services under both segments are provided through taxis and taxi drivers using the same fare calculation method and online-hailing taxi is only facilitated with the digitalization tools, and (2) the traditional roadside-hailing continues to dominate China's taxi industry with a market share of 88.7% in terms of completed rides in 2023, and thus including the taxi roadside-hailing market as part of the denominator in the calculation presents a more comprehensive visualization of the market position of these online platforms in the entire industry.

In addition, Dida ranked No. 4 in China's taxi market in terms of GTV generated from taxi online-hailing in 2023, with a market share of 0.07% in the entire taxi market in 2023. Dida also ranked No. 4 in China's taxi online-hailing market in terms of GTV generated from taxi online-hailing in 2023, with a market share of 0.6%.

Ranking	Company[1]	GTV (RMB in billions)	Market Share[2]
1	Company B	12.2	3.65%
2	Company F	0.4	0.12%
3	Company E	0.4	0.12%
4	Dida	0.2	0.07%
5	Company D	0.2	0.05%
			Top 5: 4.01%

Source: F&S Report

(1) See notes in the table above.

(2) The market share is calculated by dividing the GTV of taxi online-hailing of each player by the GTV of the entire taxi market, including the taxi roadside-hailing market and the taxi online-hailing market, as (1) services under both segments are provided through taxis and taxi drivers using the same fare calculation method and online-hailing taxi is only facilitated with the digitalization tools, and (2) the traditional roadside-hailing continues to dominate China's taxi industry with a market share of 88.9% in terms of GTV in 2023, and thus including the taxi roadside-hailing market as part of the denominator in the calculation presents a more comprehensive visualization of the market position of these online platforms in the entire industry.

INDUSTRY RECOVERY AND NEW NORMS AFTER THE COVID-19 PANDEMIC

The COVID-19 pandemic has had a negative impact on the public transportation in China, given the nationwide travel restrictions in place starting from early 2020. Government efforts to contain the spread of COVID-19, including "stay-at-home" advice, widespread business closures, travel restrictions and emergency quarantines, have caused significant and unprecedented disruptions to the normal business operations of public transportation across sectors and cities in China. Particularly, these restrictive measures had adversely affected the demand and supply of carpooling and taxi services.

The GTV of China's car-based transportation market is expected to recover from RMB722.7 billion in 2024 to RMB1,238.9 billion in 2028 at a CAGR of 14.4%, according to the F&S Report. Specifically, China's carpooling market has been rebounding from the COVID-19 outbreak, with its GTV increasing from RMB37.1 billion in 2024 to RMB103.9 billion in 2028 at a CAGR of 29.4%, according to the same source. Despite the COVID-19 resurgence in 2022, China's car-based transportation market is expected to recover and exceed the level before the COVID-19 outbreak by 2024 and grow rapidly going forward. Such trend continues to create massive market opportunities for market participants in the mid- to long-term. For instance, during the Chinese New Year holidays in 2023, the passenger volume in China increased by 99.5% compared to the same period in 2022, reaching 70.3% of the volume in the same period in 2019 before the pandemic. Furthermore, the highway transportation volume of small-sized private passenger cars during the Chinese New Year holidays in 2023 increased by 10.8% compared to the same period in 2022 and 12.7% compared to the same period in 2019 before the pandemic. Established carpooling marketplace and taxi online-hailing platforms with advanced technologies and proven market acceptance are poised to promptly react to evolving demand, maximize user satisfaction and trust, drive industry recovery, and strengthen their market position in the post-COVID era.

OVERVIEW OF CHINA'S IN-APP ADVERTISING SERVICES MARKET

In-app advertising is an effective monetization strategy for mobile app publishers, where advertisers purchase advertising space within mobile apps. While traditional printing and broadcasting advertising channels have been generally shrinking, in-app advertising has been experiencing exponential growth, primarily driven by rapid technological advancement and the booming mobile-savvy population in China. The in-app advertising services industry in China is highly competitive with more than 6,500 players by the end of 2023.

The development of China's in-app advertising services market is primarily driven by a number of factors, including (1) the enlarging number of internet and mobile internet users and the increasing number of internet devices, which has formed a solid customer base and brought great market potential, (2) evolving marketing technologies that improve the efficiency of online advertising, such as programmatic purchasing and real-time bidding, and (3) change in lifestyle and consumption habits of spending more time on social and entertainment media, which enhances the ability of online advertising services to convert the gathered data traffic to economic benefits.

According to the F&S Report, the market size of China's in-app advertising services increased from RMB304.8 billion in 2018 to RMB1,165.7 billion in 2023, and is expected to reach RMB2,976.4 billion in 2028, representing a CAGR of 20.2% from 2024 to 2028. The top five players accounted for an aggregate market share of approximately 66% in 2023. China's in-app advertising services market has relatively low entrance barrier for new players in light of the rapidly increasing market size and the fact that none of the top five players has dominated the market.