DAHON personal mobility

China Insights Consultancy

PJ ARC Industry Report

August 2025

CIC introduction, methodologies and assumptions

China Insights Consultancy is commissioned to conduct research and analysis of, and to produce a report on Global and mainland China's bicycle market at a fee of RMB450,000. The report commissioned has been prepared by China Insights Consultancy independent of the influence of the Company and other interested parties. China Insights Consultancy's primary services include industry consulting, commercial due diligence, and strategic consulting to both institutional investors and corporations. Its consulting team has been tracking the latest market trends in the fields of chemicals, healthcare, consumer goods, environment, industry, energy, transportation, agriculture, e-commerce, finance, etc., and has the most relevant and insightful market intelligence in the above-mentioned industries.

China Insights Consultancy conducted both primary and secondary research using a variety of resources in the completion of this report. Primary research involved interviewing key industry experts and leading industry participants. Secondary research involved analysing data from various publicly available data sources, such as National Bureau of Statistics of China, Chinese Cycling Association, Confederation of the European Bicycle Industry, UN Comtrade, World Bank, company reports, independent research reports, and the internal database of China Insights Consultancy. The market projections in the commissioned report are based on the following key assumptions: (i) the overall global social, economic, and political environment is expected to maintain a stable trend during the forecast period; (ii) the key industry drivers are likely to continue to drive the growth in each market during the forecast period, and (iii) there is no extreme force majeure or unforeseen industry regulations in which the market may be affected either dramatically or fundamentally during the forecast period.

All statistics are reliable and based on information available as of the date of this report. Other sources of information, including those from the government, industry associations, or market participants, may have provided some of the information on which the analysis or its data is based. All the information regarding the Company has been sourced from the Company's audited report or management interviews. The information concerning and provided by the Company has not been independently verified by China Insights Consultancy.

Terms and abbreviations

CAGR	Compound annual growth rate
DTC	Direct-to-consumer
etc.	Et cetera
EU27	European Union which consists of 27 countries
ESG	Environmental, social, and governance
GDP	Gross domestic product
OBM	Original Brand Manufacturer
ODM	Original Design Manufacturer
OEM	Original Equipment Manufacturer
RMB	Renminbi

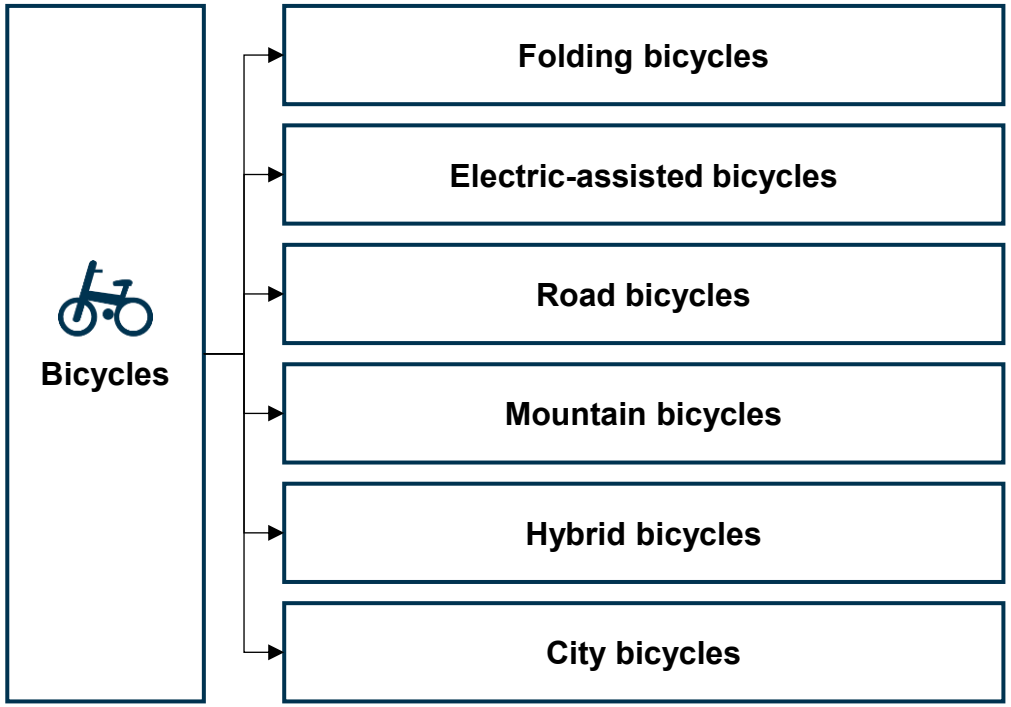
Table of contents

- **Overview of the Global and Mainland China’s bicycle industry**
- Overview of the Global and Mainland China’s folding bicycle industry
- Competitive landscape of the Global folding bicycle industry
- Appendix

Definition and categorization of the global bicycle industry

Definition and categorization

- In a world increasingly focused on environmental awareness and efficient transportation, bicycles continue to stand as a reliable and enduring mode of travel, promoting eco-friendliness, efficiency, and health. Bicycles can generally be categorized into folding bicycles, electric-assisted bicycles, road bicycles, mountain bicycles, and etc.

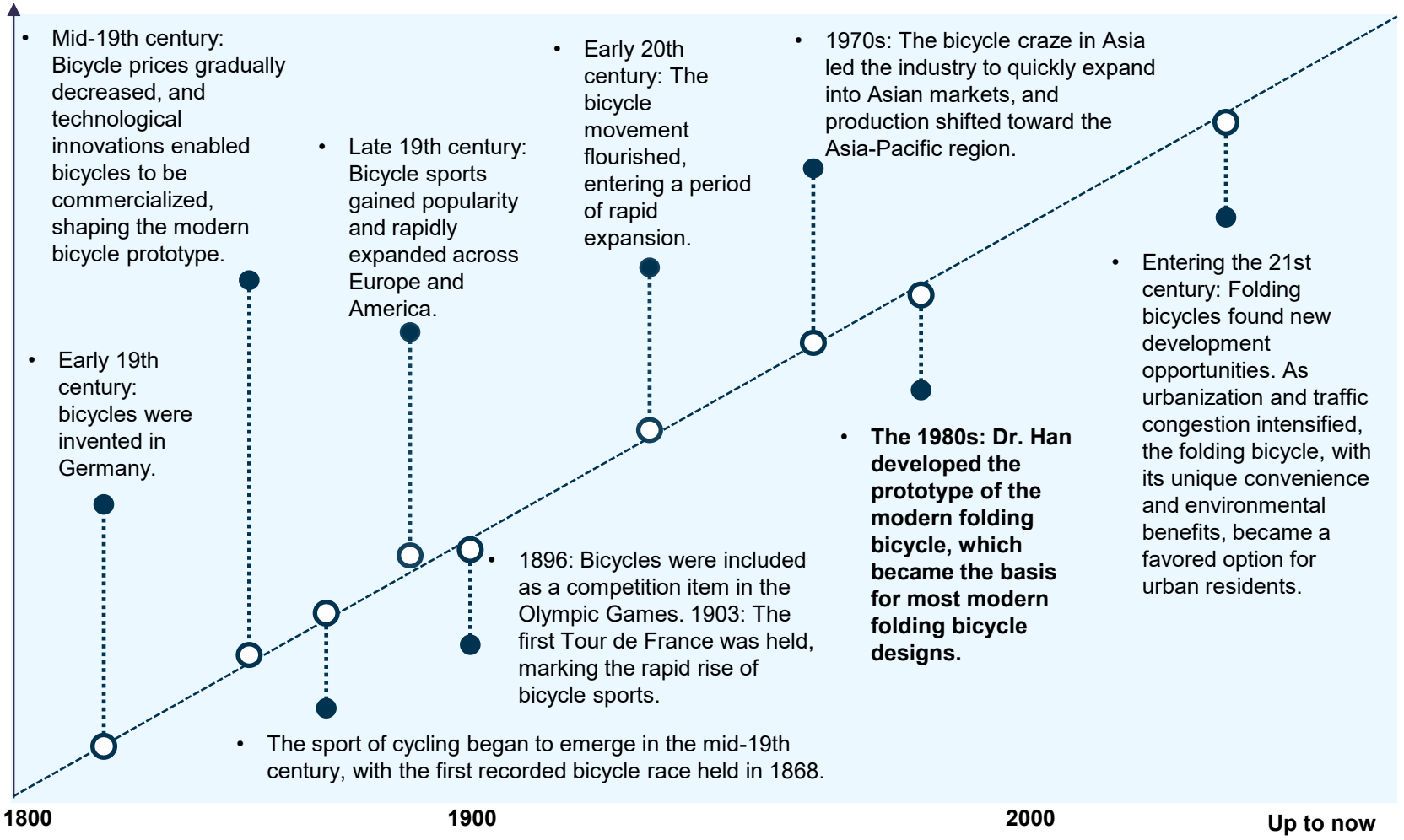


- Folding bicycles are compact and portable bicycles designed with mechanisms that allow them to be folded into a smaller size for easy storage and transport.
- Electric-assisted bicycles are bicycles equipped with an electric motor that provides additional power to assist pedaling, making them ideal for longer rides, hilly terrain, and reducing rider effort..
- Road bicycles are lightweight bicycles designed for speed and efficiency on paved surfaces, featuring narrow tires and drop handlebars to minimize wind resistance for long-distance and high-speed riding.
- Mountain bicycles are durable bicycles built with strong frames, wide tires, and suspension systems to handle rough terrains and off-road trails, providing stability and control on uneven surfaces.
- Hybrid bicycles are versatile bicycles that combine features of road and mountain bikes, designed for mixed-surface riding with a comfortable upright position, making them suitable for commuting, leisure, and light trail use.
- City bicycles are practical and comfortable bicycles designed for urban environments, often featuring upright handlebars, fenders, and racks for easy commuting and short-distance travel.

Source: China Insights Consultancy

Development history of the global bicycle industry

- ***The global bicycle industry has evolved in response to changing social, economic, and technological factors, continually adapting to meet the needs of urban and sustainable mobility.***



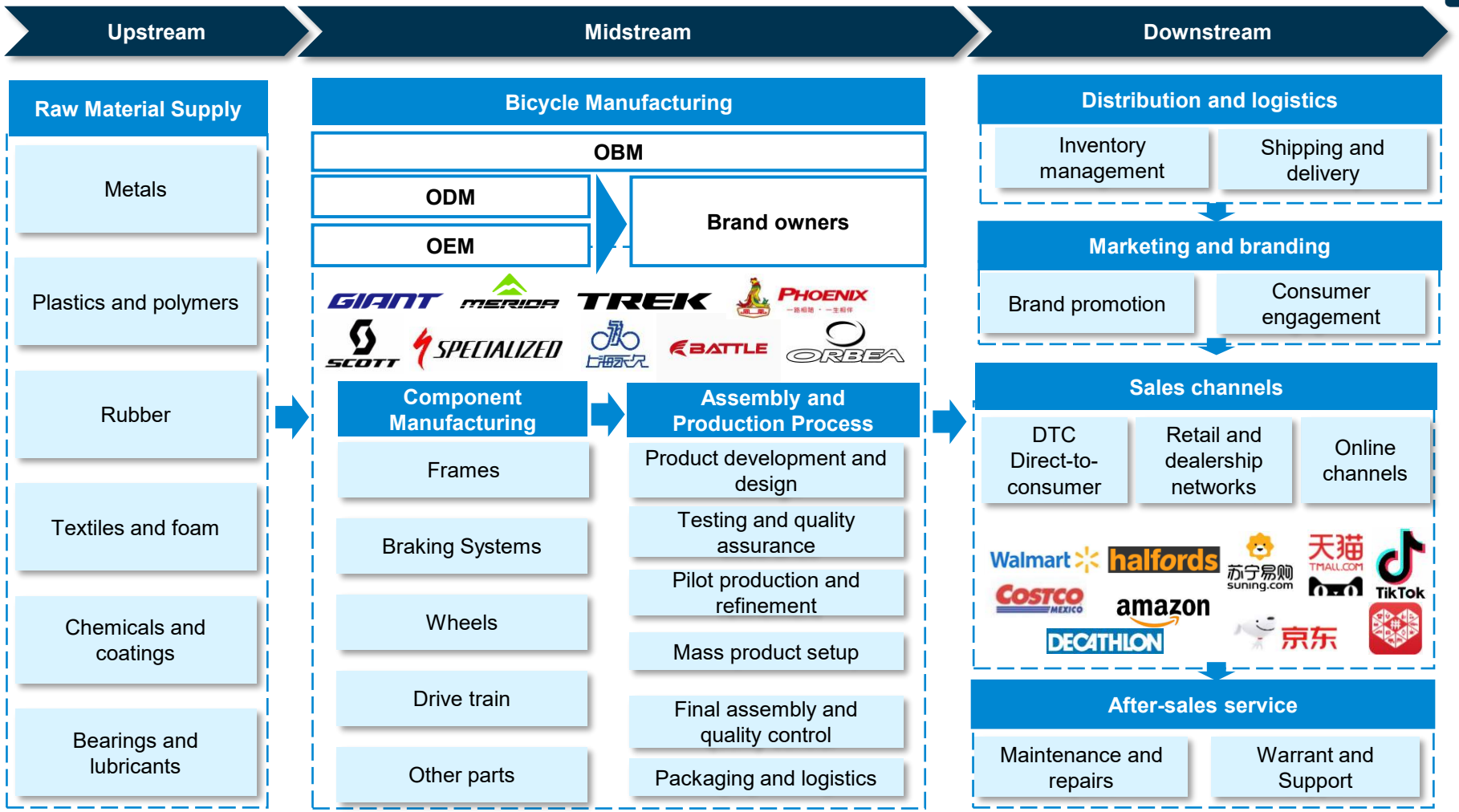
Key Analysis

- The bicycle industry has transformed significantly, driven by societal needs and technological advancements. Initially a leisure item, bicycles became a popular mode of personal transportation as they grew more affordable and accessible. In the 20th century, bicycles gained further significance in Asia, where they supported daily commuting amid rapid urbanization and limited automotive infrastructure.
- In recent years, environmental concerns and urban congestion have revitalized the bicycle market. Folding bicycles, in particular, have surged in popularity due to their compactness and portability, catering to the demands of modern city life. Their lightweight and space-saving designs make them ideal for urban residents who face challenges with storage and last-mile transportation.
- Looking forward, the bicycle industry, with an emphasis on sustainable and versatile designs, is set to play a key role in urban mobility solutions. The integration of folding and electric bicycles highlights the industry's adaptability, meeting contemporary needs for convenient, eco-friendly, and flexible transportation options within urban environments.

Source: China Insights Consultancy

Value chain of the global bicycle industry

- ***The bicycle industry value chain consists of upstream raw material and component supply, midstream manufacturing processes, and downstream distribution, marketing, and after-sales services."***



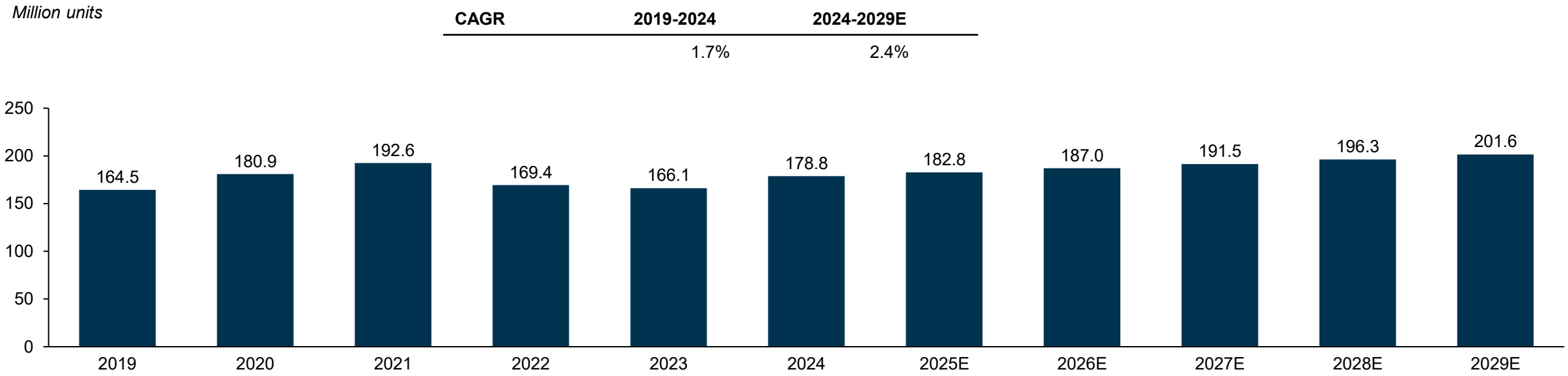
Key Analysis

- The upstream segment of the bicycle industry includes suppliers of essential raw materials like metals, plastics, rubber, textiles, chemicals, and lubricants. Top bicycle brands often keep critical component manufacturing in-house to protect proprietary technologies and maintain stringent quality standards.
- The midstream segment centers around bicycle manufacturing, which involves both component production and the assembly process. Component manufacturing includes frames, braking systems, wheels, and drive trains, with some companies operating as OEMs or ODMs for other brands. The assembly and production process involves stages such as product design, quality testing, pilot production, mass production, final assembly, and packaging. Major brands, including Giant, Trek, and Merida, focus on maintaining high quality and leveraging advanced manufacturing capabilities in this phase to ensure reliable performance.
- The downstream segment of the bicycle industry encompasses distribution, marketing, and after-sales service. Distribution channels are divided into direct-to-consumer (DTC), retail and dealership networks, and online platforms

Source: China Insights Consultancy

Market size of the global bicycle industry, in terms of retail sales volume

Market size of the global bicycle industry, in terms of retail sales volume, 2019-2029E



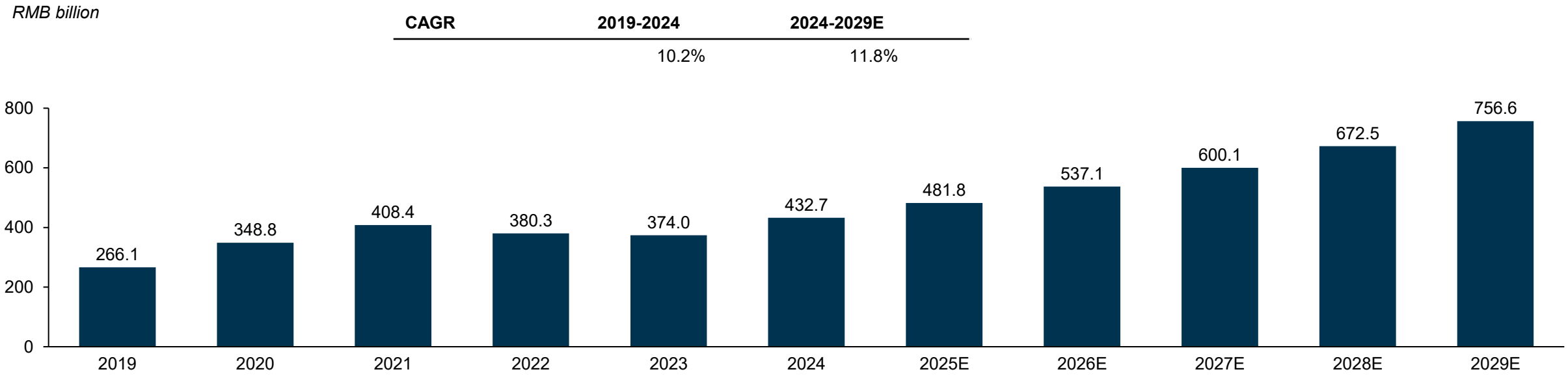
Key Analysis

- The market size of global bicycle industry experienced fluctuation in the last few years. The public health emergency in 2020 had triggered a global sales boom. Limited social activities and a heightened interest in outdoor physical activities significantly boosted the demand for bicycles worldwide in 2020 and 2021. Thus, such market trend and consumer behaviors had brought extra demand and growth in 2021 while the market returned to a much more moderate level in 2022 and 2023. In terms of retail sales volume, the market size of the global bicycle industry decreased from 164.5 million units in 2019 to 178.8 million units in 2024, registering a CAGR of 1.7%. It is projected to grow steadily, reaching 201.6 million units by 2029, with a CAGR of 2.4% from 2024 to 2029.

Source: China Insights Consultancy

Market size of the global bicycle industry, in terms of retail sales value

Market size of the global bicycle industry, in terms of retail sales value, 2019-2029E



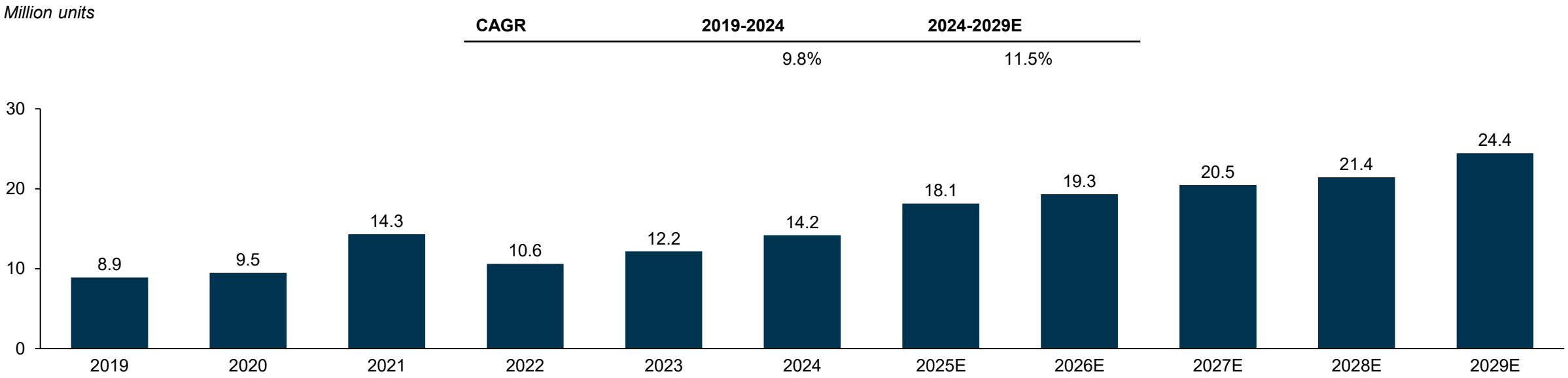
Key Analysis

- The market size of the global bicycle industry, in terms of retail sales value, increased from RMB266.1 billion in 2019 to RMB432.7 billion in 2024, registering a CAGR of 10.2% between 2019 and 2024. Driven by increasing consumer purchasing power and higher average selling price of bicycles, the market's retail sales value recorded a faster growth than the increase in units sold. This trend is expected to continue, as consumers' willingness-to-spend per-unit is projected to rise, leading to a market size of RMB756.6 billion by 2029, indicating a CAGR of 11.8% between 2024 to 2029.

Source: China Insights Consultancy

Production volume of bicycles priced at RMB1,000 and above in mainland China

Production volume of bicycles priced at RMB1,000 and above, mainland China, 2019-2029E



Key Analysis

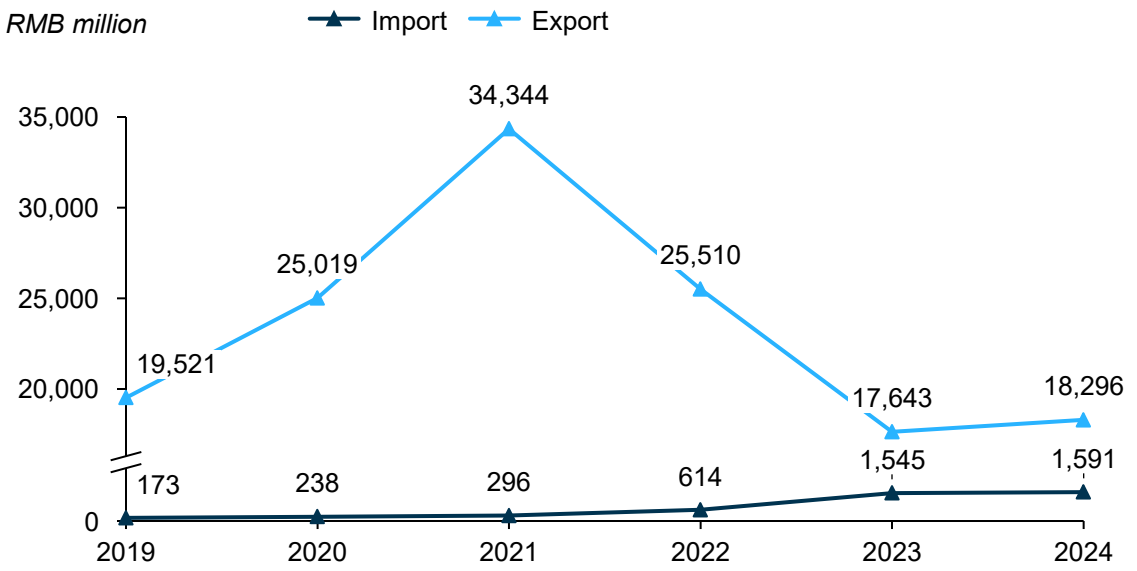
- Mainland China, as the world's largest production country of bicycles, contributed more than 50% of the global production. Driven by increasing adoption of specialized bicycles and mid- to high-end bicycles, production volume of bicycles priced at RMB1,000 and above has seen a CAGR of 9.8% between 2019 and 2024. Production volume of bicycles priced at RMB1,000 and above is expected to further increase to 24.4 million units in 2029, registering a CAGR of 11.5% between 2024 to 2029.

Note: Data excludes Taiwan.

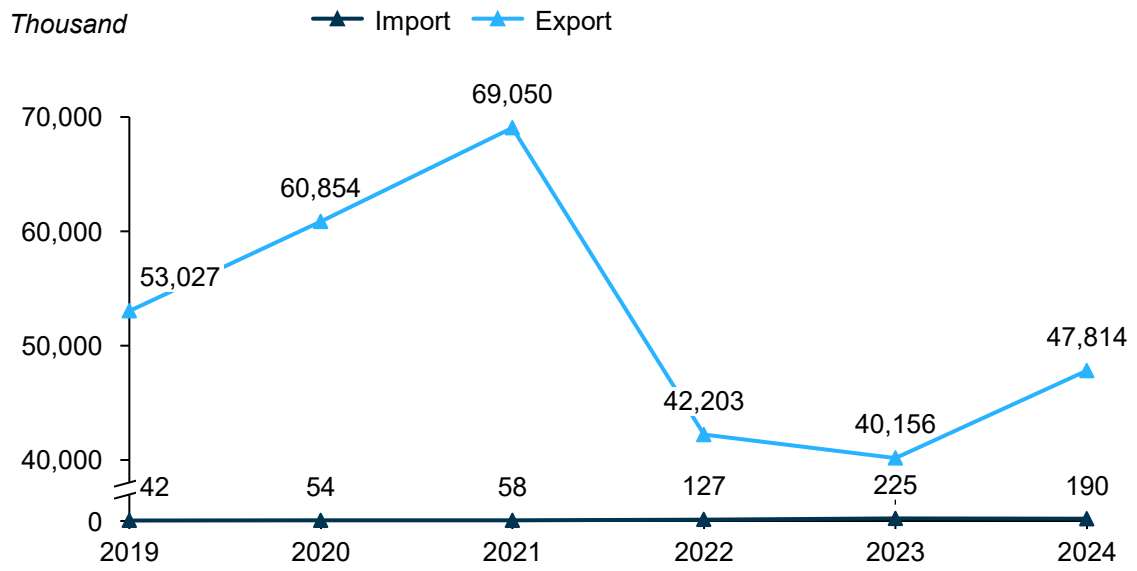
Source: China Insights Consultancy

Import and export overview of China’s bicycle industry

Import and export value of China’s bicycle industry, 2019-2024*



Import and export volume of China’s bicycle industry, 2019-2024*



**Data derived from UN Comtrade under commodity code 8712 (Bicycles and other cycles; including delivery tricycles, not motorized).*

Key Analysis

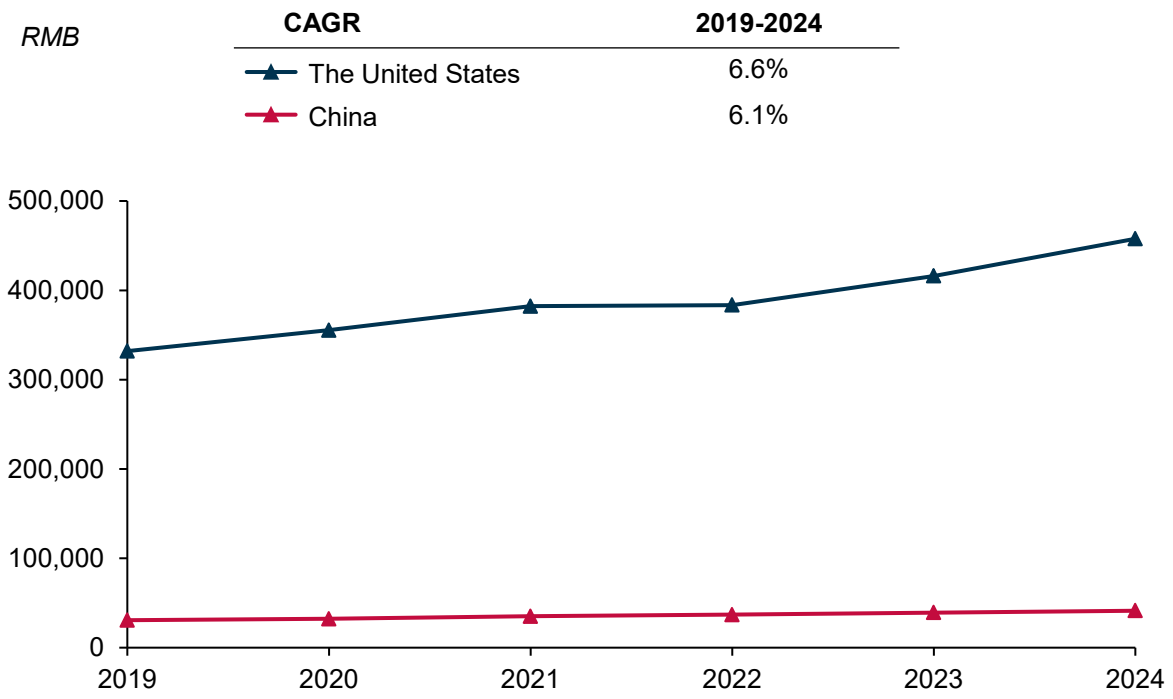
- China’s bicycle industry plays a pivotal role in the global market, serving as the largest exporter of bicycles worldwide. From 2021 to 2023, China’s bicycle export value and volume declined, primarily due to industry-wide de-stocking. However, as the global economy recovers from the effects of the 2019 public health emergency, de-stocking is expected to conclude, and demand is anticipated to gradually resume from 2024 onward. China’s bicycle imports are relatively small compared to its exports and primarily consist of high-end models. These products are positioned as premium or luxury goods, appealing to affluent consumers and cycling enthusiasts, particularly in regions like Shanghai, Jiangsu, and Tianjin. Since 2021, import value and volume have grown rapidly, driven by a rising awareness of cycling culture and increasing demand for health and fitness solutions.

Note: Data excludes Taiwan.

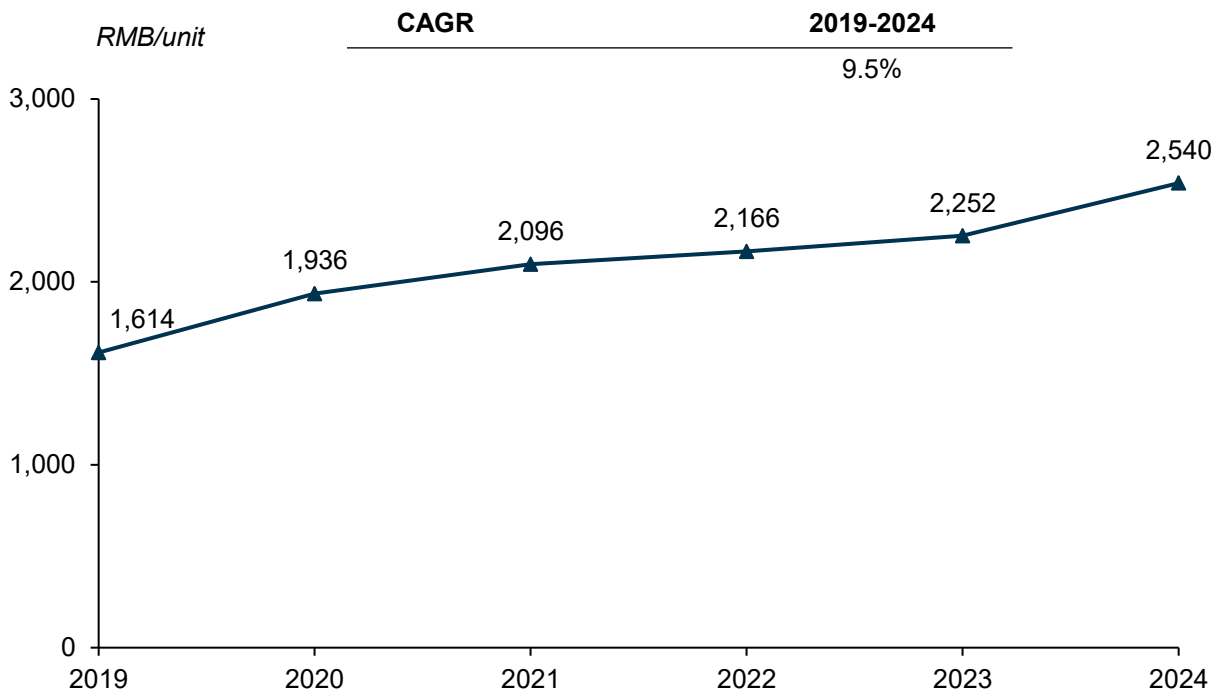
Source: UN Comtrade, China Insights Consultancy

Market driver of the global bicycle industry
- Increasing purchasing power and average spending per bicycle

Disposable personal income, by country, 2019-2024



Average spending per bicycle, 2019-2024

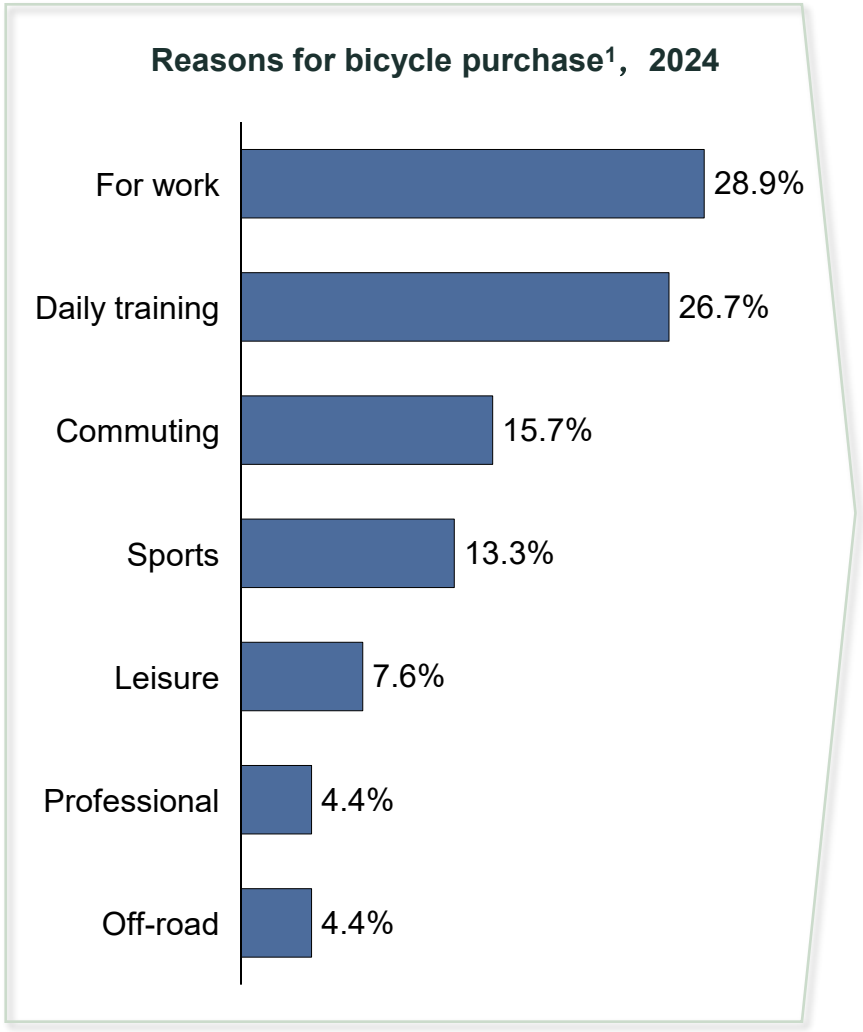


Key Analysis

- As consumers' disposable incomes rise, they are more willing and able to invest in quality products, including bicycles with advanced features, superior materials, and enhanced durability. Disposable personal income has registered a CAGR of 6.6% and 6.1%, respectively, in the United States and China. Additionally, average spending per bicycle has increased at a CAGR of 9.5% between 2019 and 2024. As purchasing power continues to grow globally, this trend is expected to further drive demand for premium, technologically advanced bicycles and support overall market growth.

Source: China Insights Consultancy

Market driver of the global bicycle industry- Growing health awareness and popularity of cycling
-The enhanced health awareness among consumers and the gradual popularization of cycling events



Major cycling events

Tour de France

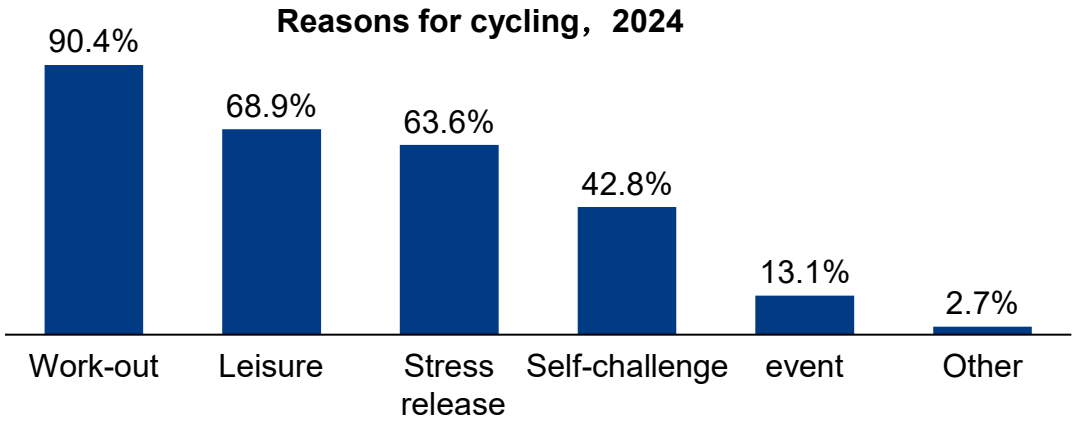
Giro d'Italia

Vuelta a España

UCI Mountain Bike & Trials World Championships

Enduro World Series

Enhanced health awareness



- These events have not only attracted participation from professional athletes but have also garnered significant attention from numerous amateurs and the general public. As the sport gains popularity and evolves, it is driving the development of cycling towards more specialized and mountain-focused disciplines.

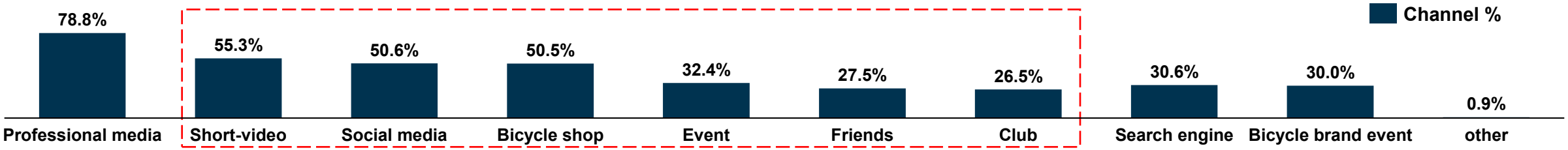
- Cycling, as a low-impact and efficient form of exercise, can aid in weight reduction, enhance cardiovascular health, and strengthen the immune system. These benefits are encouraging more individuals to choose bicycles as their daily workout apparatus. Additionally, cycling serves as a leisurely pastime, offering a comfortable riding experience and aiding in relaxation and stress relief.

Note: Sample sources from International Journal of Management and Humanities

Source: China Insights Consultancy

Market driver of the global bicycle industry industry- Growing health awareness and popularity of cycling - Evolving lifestyles and social media enhance cycling's social dimension

➢ Information sources for cycling and event



➢ Through social media, content shared by cycling enthusiasts is increasingly abundant and popular. The dissemination and social nature of cycling online are poised to enhance the penetration rate of cycling and further stimulate growth in the bicycle industry.

- **Technique sharing**

10,000+
9,000+
Wechat video

- **Cycling style sharing**

12,000+
1,200+
RED

- **Introduction of cycling**

26,000+
45,000+
Douyin

Online Offline

➢ Offline social events have enriched the ecosystem of the cycling industry, enhancing interaction and community cohesion among cyclists, and have promoted the popularization of cycling culture and the development of the market.

1

- Organizing cycling events, technical training sessions, and product launch parties as social activities. The bicycle shop serves as a communication platform for staff and customers to share their cycling experiences.

2

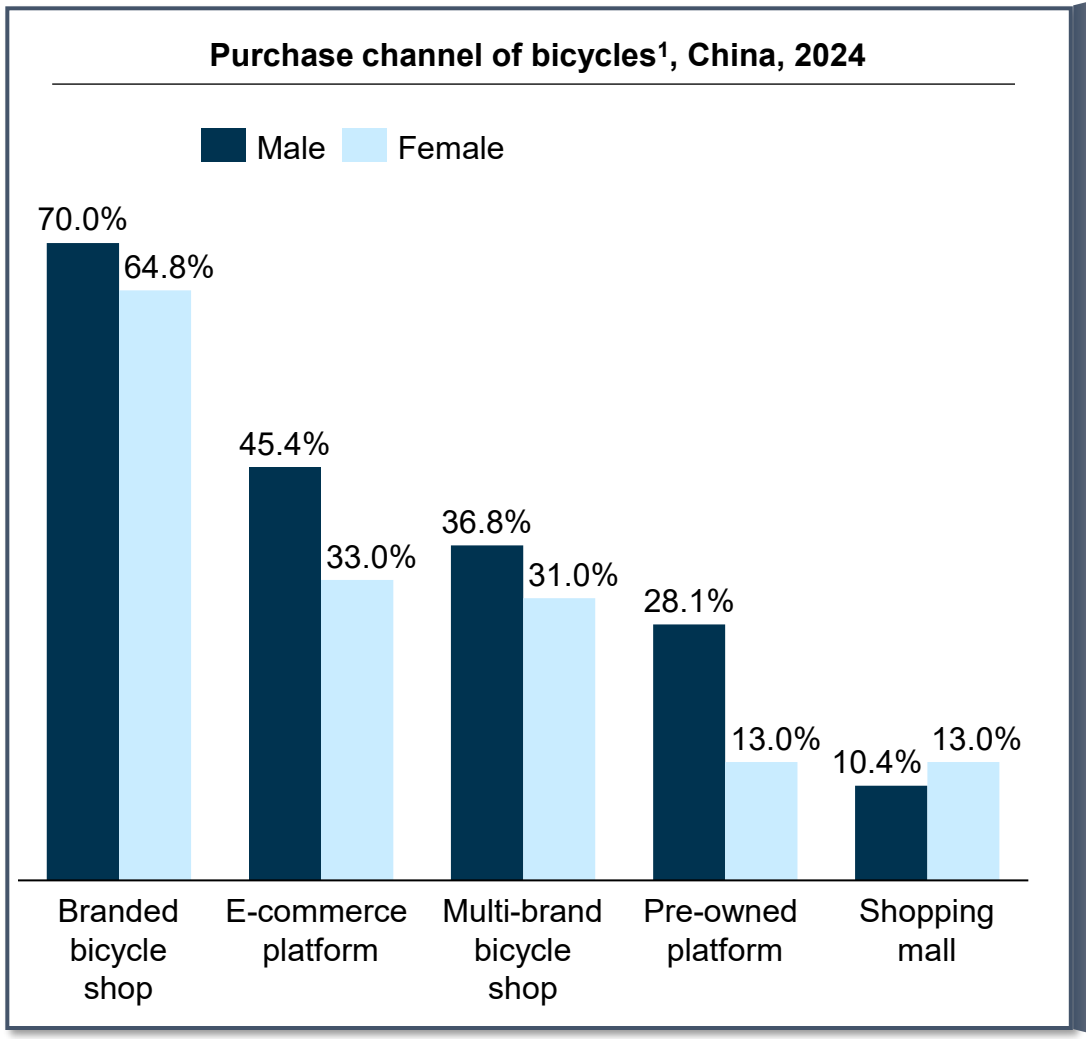
- Provide venues for showcasing cycling prowess and interaction, such as amateur competitions and professional events. Pre-race gatherings and post-race celebrations, among other related social activities, further enhance interaction.

3

- Regularly organize group rides, training sessions, and social gatherings to provide a platform for sharing cycling experiences, route recommendations, and technical tips.

Source: China Insights Consultancy

Market driver of the global bicycle industry
- Diversified bicycle consumption channels enhance convenience and drive industry innovation



	Introduction	Differentiation	Consumer
Branded bicycle shop	• The sales of own brand bicycle	• To offer the best service and introduction of products and other information	• High brand loyalty • Focus on experience
E-commerce pltform	• Amazon, Taobao, JD, Ebay and etc.	• Through online sales, the shipment and payment is more convenient	• Consumers with limited time for shopping
Multi-brand bicycle shop	• The sales of multi-brand bicycles with various choice for consumer	• To compare multiple brands products in one stop	• Consumers who enjoys comparing various brands products
Pre-owned platform	• Sales between consumers for pre-owned bicycles	• To have a lower price than new bicycles	• Consumers with limited budget
Shopping mall	• Shopping mall or department store, usually only stands for limited offering	• For casual buyers who does not need much extra function	• Consumers who does not have a clear purchase intention

Note: sample source from Biketo.

Source: China Insights Consultancy

Market driver of the global bicycle industry
- Distinctive attributes of ESG, sports and consumption

	ESG oriented	Sports oriented	Consumption oriented
Europe	• Germany has implemented a nationwide bicycle traffic plan to develop and maintain cycling infrastructure. In 2021, the NRVP 3.0 was adopted with the aim of enhancing cycling GPS data and planning cycling routes to ensure the quality of bicycle traffic.	• France has invested 250 million euros in the construction of bicycle lanes and other related infrastructure, with an expansion of more permanent bike paths and the addition of 180,000 new bicycle parking spots. Meanwhile, Italy's "Cambio" bicycle strategy involves an investment of 250 million euros in building rapid bicycle lanes to better integrate into the public transportation network.	• European countries have introduced subsidies for the purchase of electric-assisted bicycles, with regions such as France and Italy offering subsidies of up to 500 euros per bike.
The U.S.	• The Federal Government has enacted the "Bipartisan Infrastructure Bill," which includes enhanced investment in low-carbon transportation infrastructure abroad, such as bike lanes and pedestrian paths, to reduce reliance on high-carbon emission vehicles. Additionally, the "Inflation Reduction Act" extends tax credits for low-carbon emission reduction efforts. On a local level, measures and policies include an $81 per month pre-tax commuting subsidy for those who cycle to work in the San Antonio area.	• The Senate passed the "American Outdoor Recreation Act," which includes the prioritization of developing sports and recreational facilities on public lands, such as the construction of long-distance bike trails. The aim is to enhance opportunities for physical activities on public lands, particularly for cycling and mountain biking, encouraging greater participation in outdoor activities and thus improving overall health levels.The Department of Health and Human Services released the "Physical Activity Guidelines," which underscore the importance of aerobic exercises, strength training, and everyday activities, especially cycling. The guidelines target not only individuals but also offer recommendations for communities and schools to increase opportunities for physical activity and reduce sedentary behaviors.	• Local Government Incentives for Sports and Entertainment Consumption: Incentivizing the public to purchase sports equipment and participate in cultural and entertainment activities through measures such as entertainment consumption taxes, tax credits, and direct subsidies. For instance, in certain states or regions, the purchase of electric bicycles and e-bikes is eligible for government subsidies, with some areas offering a maximum subsidy of $1,500 per e-bike.
China	• The State Council has issued the "2024–2025 Energy Conservation and Carbon Reduction Action Plan," which includes the promotion of low-carbon transportation infrastructure construction, the advancement of low-carbon transformation in transportation equipment, and the implementation of low-carbon environmental protection initiatives for all citizens.	• The General Office of the State Council has issued policy documents such as "Guidance on Accelerating the Development of the Fitness and Leisure Industry" and "Opinions on Promoting National Fitness and Sports Consumption to Drive the High-Quality Development of the Sports Industry." In conjunction, the General Administration of Sport has launched outdoor sports industry plans including ice and snow, mountain outdoor, water sports, aviation, automobile and motorcycle, cycling, marathon, and equestrian, in collaboration with the National Development and Reform Commission and other departments.	• The National Development and Reform Commission (NDRC) has released "Measures for the Recovery and Expansion of Consumption," which includes actions to upgrade facilities for national fitness and support the development of new business models for outdoor sports. Meanwhile, the General Administration of Sport has issued a "Work Plan for the Recovery and Expansion of Sports Consumption," with various regions across the country holding events to promote sports consumption, such as Suzhou issuing fitness vouchers to benefit the public.

Source: China Insights Consultancy

Future trend of the global bicycle industry
- Increasing participation of women in cycling

Country	Gender composition, 2024		Percentage of female cyclists, 2024-2029E	
	Female	Male	Female	Male
China	49%	51%	8%	92%
The United Kingdom	51%	49%	20%	80%
The United States	51%	49%	25%	75%
Global	50%	50%	20%	80%

Key Analysis

- Women comprise approximately 50% of the global population, yet they account for only about 20% of cyclists worldwide. Historically, cycling has been perceived as a male-dominated activity, with bicycles, apparel, and gear primarily designed to meet the preferences and needs of male consumers. However, in recent years, cycling has seen a rise in female participation, driven by increased health awareness, lifestyle changes, and evolving cultural perceptions. This shift has prompted companies to address the specific requirements of female cyclists, resulting in the development of women-specific bicycle designs with modified frame geometry, narrower handlebars, custom saddles, and lighter frames. Additionally, companies are producing cycling apparel and accessories tailored to women, combining functionality, comfort, and aesthetic appeal. As cycling becomes more inclusive and supportive of women's needs, female participation in cycling is projected to continue its upward trajectory.

Source: China Insights Consultancy

Main challenges and solutions for the global and China's bicycle industry

	Challenges		Solutions	
1	**Raw material price fluctuations**	• Rising and unstable prices of materials like aluminum, steel, and rubber increase production costs and squeeze profit margins, impacting the affordability and profitability of bicycles.	**Long-term contracts and diversified sourcing**	• Establishing long-term contracts with suppliers helps stabilize costs, while diversifying suppliers across different regions reduces dependency on a single market, protecting against regional price volatility.
2	**Environmental policy pressure**	• Stricter environmental regulations globally require companies to adopt sustainable practices in production, which may increase operational costs and necessitate changes in materials and processes.	**Sustainable manufacturing and eco-friendly materials**	• Invest in energy-efficient technologies and renewable energy sources for production. Use recyclable materials and obtaining green certifications (e.g., ISO 14001) .
3	**Intensified market competition**	• The bicycle market is becoming more competitive, especially with the rise of new entrants and increased demand for niche segments. Aggressive pricing strategies by competitors can put pressure on profit margins.	**Differentiated product offerings and brand positioning**	• Focusing on specific market segments (e.g., urban commuters, mountain bikers) and building a strong brand identity help attract loyal customers who value unique features and quality. Innovation in design and functionality also enhances competitiveness.
4	**Supply chain disruptions**	• Global supply chain disruptions caused by factors like pandemics, shipping delays, and geopolitical issues can lead to production delays and limit the availability of key components.	**Supply chain diversification and inventory management**	• Developing alternative suppliers in different regions reduces dependency on any one country, and maintaining strategic stockpiles of critical components provides a buffer against unexpected disruptions.
5	**Shifts in consumer demand and economic uncertainty**	• Economic downturns, inflation, and changing consumer preferences can reduce bicycle demand, especially for premium products, as consumers may prioritize affordability during uncertain economic times.	**Flexible product line-up and value-added services**	• Offering products at different price points allows brands to cater to a wider audience. Additionally, providing services like maintenance plans, warranties, and trade-in programs adds value and retains customers during economic downturns.

Source: China Insights Consultancy

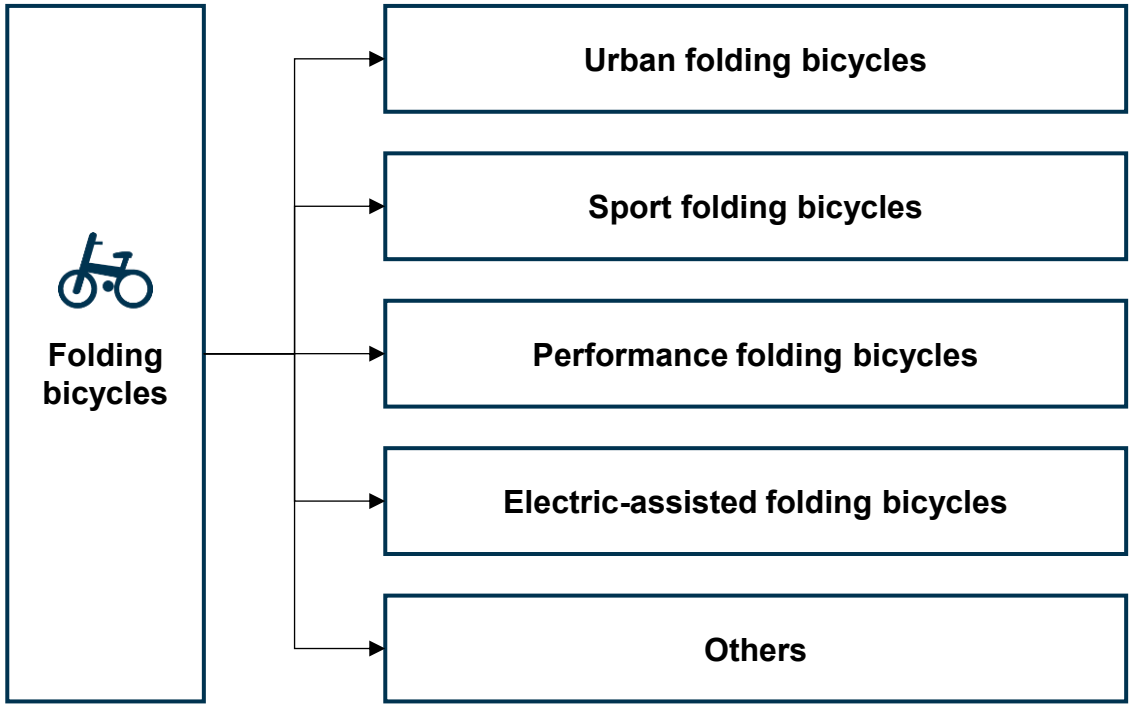
Table of contents

- Overview of the Global and Mainland China's bicycle industry
- **Overview of the Global and Mainland China's folding bicycle industry**
- Competitive landscape of the Global folding bicycle industry
- Appendix

Definition and categorization of the global folding bicycle industry

Definition and categorization

- Folding bicycles have evolved from the traditional bicycle industry as a response to the growing need for convenience, urban mobility, and space-saving solutions. Folding bicycles are compact and portable bicycles designed with mechanisms that allow them to be folded into a smaller size for easy storage and transport. Advances in lightweight materials, compact folding mechanisms, and durable designs have allowed folding bicycles to offer similar performance to traditional bicycles while providing added portability. These bikes have gained significant popularity, particularly in urban environments, where space is often limited and the need for flexible transportation solutions is high. Folding bicycles offer a practical alternative for commuters who need to combine cycling with other modes of transport, such as buses, trains, or cars, making them ideal for last-mile commuting. Folding bicycles can be categorized by use case into urban folding bicycles, sport folding bicycles, performance folding bicycles, electric-assisted folding bicycles, and other types.

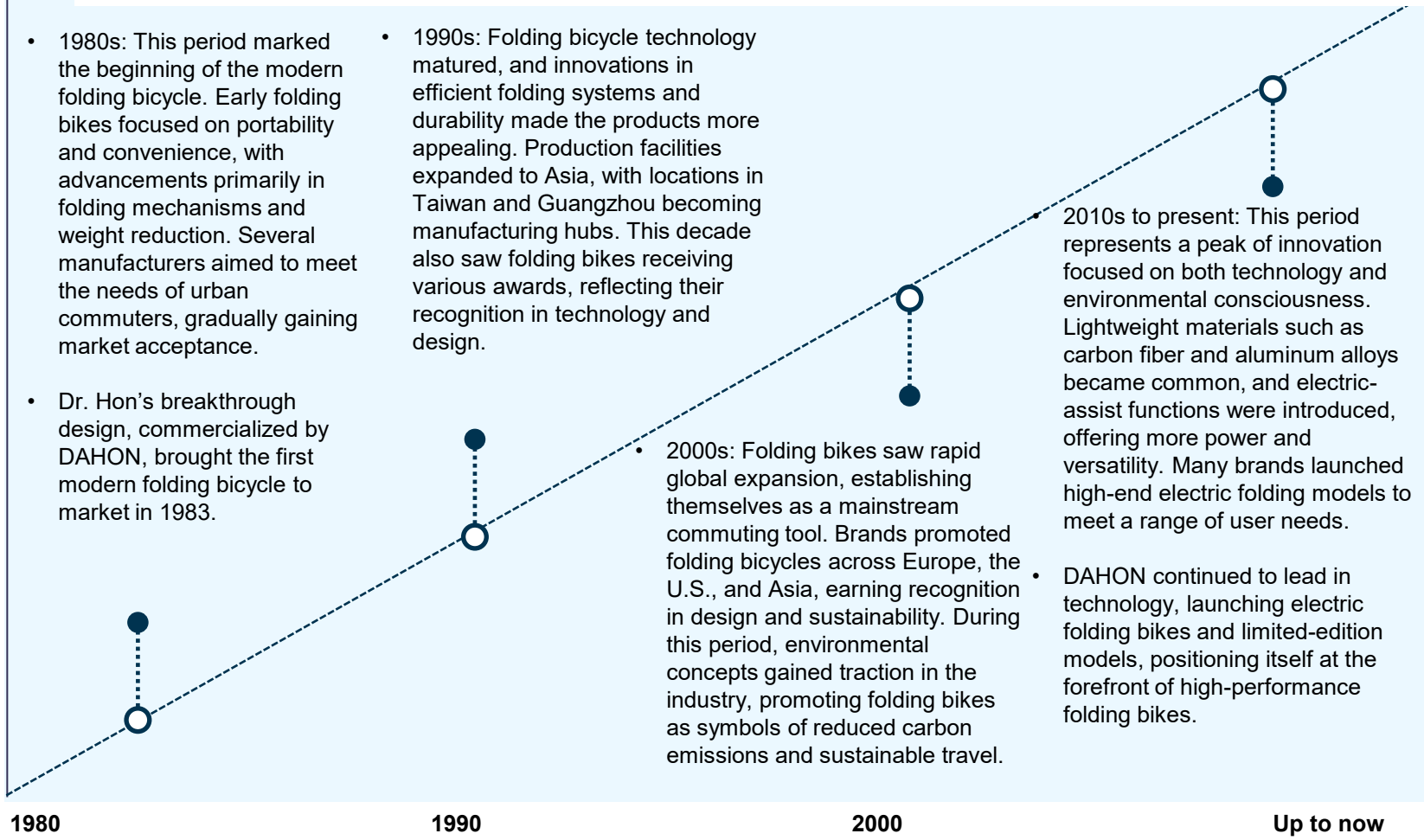


- Designed for daily use in urban environments, these bikes prioritize compactness, quick folding, and ease of transport, often combined with lightweight frames.
- Designed for riders seeking speed and durability, sport folding bicycles are built to deliver stability and high performance on longer rides and challenging terrain.
- Designed for professional riders, performance folding bicycles are built for high performance on longer rides and diverse terrain.
- Electric-assisted folding bicycles combine the convenience of compact folding with electric power, offering an efficient and effortless ride for urban commuting and longer journeys.
- Other folding bicycles include off-road folding bicycles, cargo folding bicycles, etc.

Source: China Insights Consultancy

Development history of the global folding bicycle industry

- ***The global folding bicycle industry has evolved through technological, environmental, and consumer-driven advancements, continuously adapting to the changing needs of urban mobility and sustainable transport solutions.***



Key Analysis

- folding bicycles have evolved from simple commuting tools into multifunctional transportation options, blending technological innovation, environmental awareness, and modern style. Driven by technical advancements and sustainability ideals, the folding bike industry has developed to meet the diverse demands of contemporary urban life, positioning folding bikes as essential eco-friendly mobility solutions.
- The development of folding bicycles owes much to pivotal innovations by Dr. David Hon and DAHON, who introduced the modern folding bike in 1982. Dr. Hon's invention set the foundation for folding bicycles as we know them today, emphasizing portability and efficiency, which opened up new possibilities for urban mobility. Dr. Hon's invention and continued advancements have been instrumental in evolving folding bicycles into a versatile and eco-friendly mobility solution, meeting the needs of modern urban lifestyles and promoting sustainable travel choices.

Source: China Insights Consultancy

Comparison of bicycle types and advantages of folding bicycles

➢ ***Folding bicycles offer practical advantages tailored to modern urban commuting needs.***

Bicycle type	Ease of riding	Ease of storage
Folding bicycles	Compact size for nimble maneuvering in urban environments and multi-modal transport.	Compact when folded; easy to store in apartments, offices, or public transport.
Non-folding bicycles	Sturdier frame and better terrain adaptability when off-road	Requires more storage space; inconvenient in confined areas.

Key Analysis

- Folding bicycles are uniquely suited to urban life, offering unmatched portability and storage convenience. Their compact design allows easy storage in small spaces and seamless transport, whether in car trunks, public transit, or offices. They are also lightweight and require minimal setup, adding to their practicality for daily use. Unlike non-folding bicycles, folding bicycles provide versatile applications across commuting, leisure, and recreation, with a wide range of models, including electric-assisted and compact options, tailored to meet the demands of modern urban commuting.

Source: China Insights Consultancy

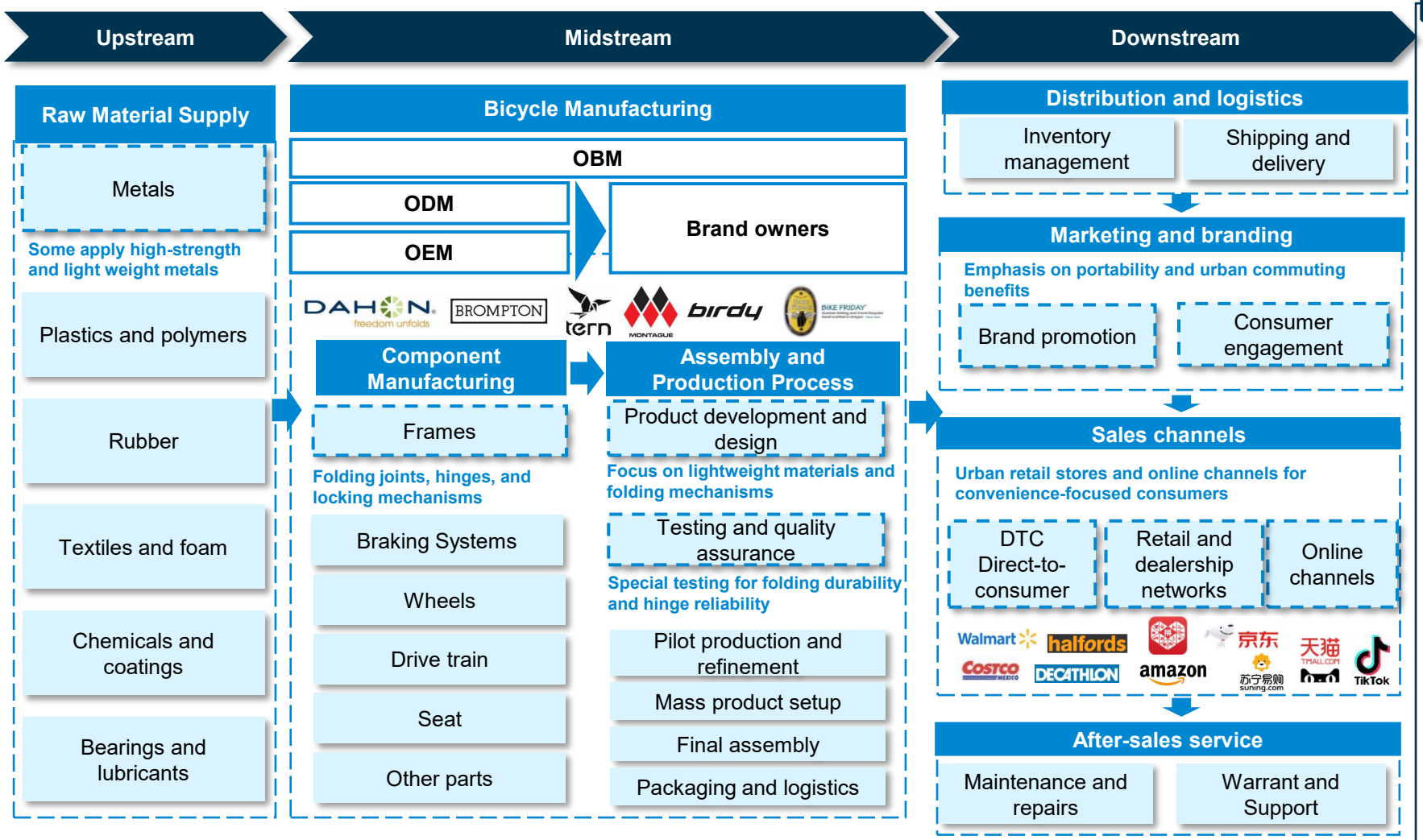
Technical analysis of the global folding bicycle industry

Folding bicycles are a technological blend of portability, durability, and versatility, engineered to meet the demands of modern, space-conscious users. By combining compact folding mechanisms, strong yet lightweight frames, adaptable gearing and braking systems, optional suspension, and a storage-friendly design, folding bicycles cater to riders seeking convenience without sacrificing performance or safety.

Folding Mechanism	• The folding mechanism is fundamental to the functionality of a folding bicycle, as it allows the bike to be stored and transported more easily. Different folding techniques are employed to achieve compactness, each with unique advantages. Mid-frame folding, where the bike folds at the center, enables a swift reduction in length while maintaining stability. Vertical axis folding rotates the frame along a vertical line, minimizing horizontal space usage. Additionally, some models feature a rear triangle flipping mechanism, allowing the rear wheel assembly to fold underneath, creating an even tighter fold. These varied approaches to folding, along with features like telescoping frame tubes and detachable components, make folding bicycles adaptable to different storage and carrying needs, highlighting the importance of structural efficiency and ease of operation in their design.
Frame Material and Design	• The materials used in a folding bicycle's frame are carefully selected to balance strength, weight, and durability, factors that are crucial to both performance and portability. Lightweight yet strong materials, such as aluminum alloy, carbon fiber, and high-strength steel, are frequently used to reduce overall bike weight while maintaining rigidity. The design must ensure that the frame remains durable and capable of withstanding the repeated stress from folding and unfolding. A well-designed frame not only enhances stability and safety but also contributes to the ease of transportation, allowing the bicycle to remain light enough for urban commuters who may carry or stow it frequently.
Gearing and Braking Systems	• Folding bicycles benefit from an efficient gearing system and dependable braking mechanisms, as these directly influence their versatility and safety in urban and leisure settings. The gearing system is especially valuable for folding bikes, as it enables riders to adjust to different inclines and speeds, extending the bike's usefulness beyond flat, urban landscapes. Reliable braking systems, whether disc or caliper brakes, are equally essential, as they ensure safe and precise stopping power across varied riding conditions, a priority for compact urban bikes frequently encountering stop-and-go traffic.
Suspension System	• Some folding bicycles incorporate suspension systems, particularly for models intended for longer rides or uneven terrain. A well-designed suspension system absorbs shocks from rough surfaces, enhancing rider comfort by reducing the impact felt during a ride. While not all folding bicycles have this feature, it is a desirable component for users who expect to encounter a variety of surfaces, making the bicycle suitable for more than just smooth, paved routes.
Storage Design	• One of the primary purposes of a folding bicycle is to maximize portability, and its design reflects this objective. After folding, the bicycle should be compact enough to fit easily in tight spaces, such as car trunks, public transportation storage areas, or small apartments. Manufacturers focus on ensuring that folded dimensions are minimal without compromising the bike's structural integrity. A well-designed storage mechanism thus enhances both the practicality and appeal of the bicycle for urban commuters and frequent travelers, who benefit from a bike that is easy to carry and store in confined spaces.

Source: China Insights Consultancy

Value chain of the global folding bicycle industry



Note: refer to aspects of the folding bicycle value chain that are distinct from those of other bicycle types.

Key Analysis

Folding bicycles are characterized by the need for specialized components, including folding joints, hinges, and locking mechanisms, which are designed to ensure durability and meet the demands of frequent folding and unfolding. Their product design prioritizes lightweight materials and compact folding systems, catering to urban users who value portability and easy handling for daily travel. To ensure long-term reliability, these bicycles undergo stringent quality assurance processes, with a particular focus on testing the resilience of joints and hinges under repetitive stress. Marketing strategies emphasize the advantages of portability, compact storage, and adaptability to urban lifestyles, appealing to commuters and city dwellers seeking convenient mobility solutions. In the production process, folding bicycle companies prioritize R&D, proprietary technology, and branding. While component manufacturing, assembly and production process are often outsourced to specialized suppliers, strict quality control is maintained to ensure reliability and uphold brand standards. Sales channels are primarily concentrated in retail stores and online platforms. For distribution, many brands rely on extensive networks of authorized third-party distributors to expand their reach across diverse markets. This approach ensures widespread product availability and enables companies to leverage local expertise, while direct-to-consumer (DTC) channels and online platforms are increasingly adopted to strengthen brand engagement and optimize profit margins.

Source: China Insights Consultancy

Market position and price ranges of folding bicycles

- Folding bicycles can range across all price points, but they tend to be more mid end to high end compared to regular bicycles. The reason is that folding bicycles require more specialized engineering to make them compact and functional without sacrificing performance or durability. This makes them generally more expensive than traditional bicycles.

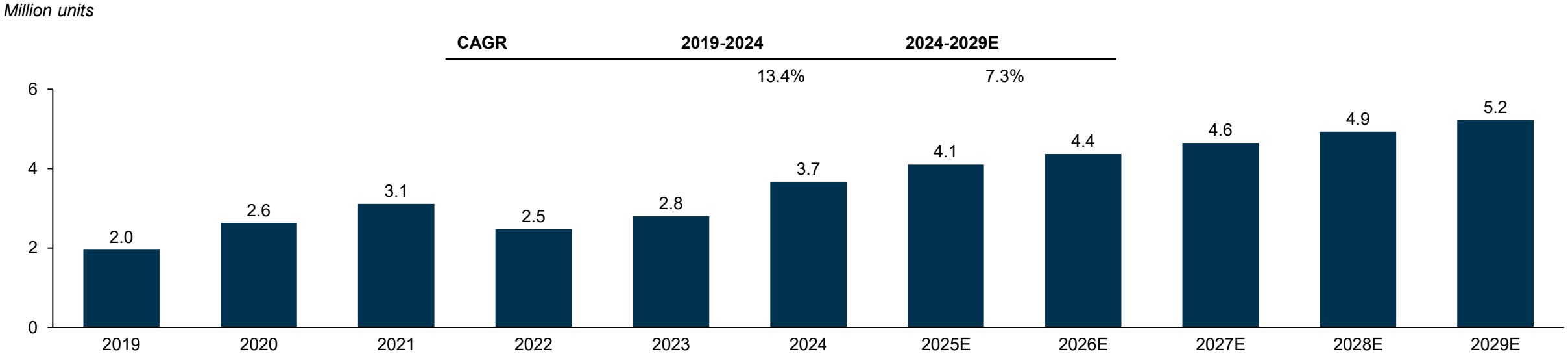
Market position	Average retail price[1]
High end	5,000 RMB/unit or above
Mid end	Reaching 2,500 but below 5,000 RMB/unit
Mass market	Below 2,500 RMB/unit

Note: 1. Refers to the average selling price for the years 2022, 2023, and 2024.

Source: China Insights Consultancy

Market size of the global folding bicycle industry, in terms of retail sales volume

Market size of the global folding bicycle industry, in terms of retail sales volume, 2019-2029E



Key Analysis

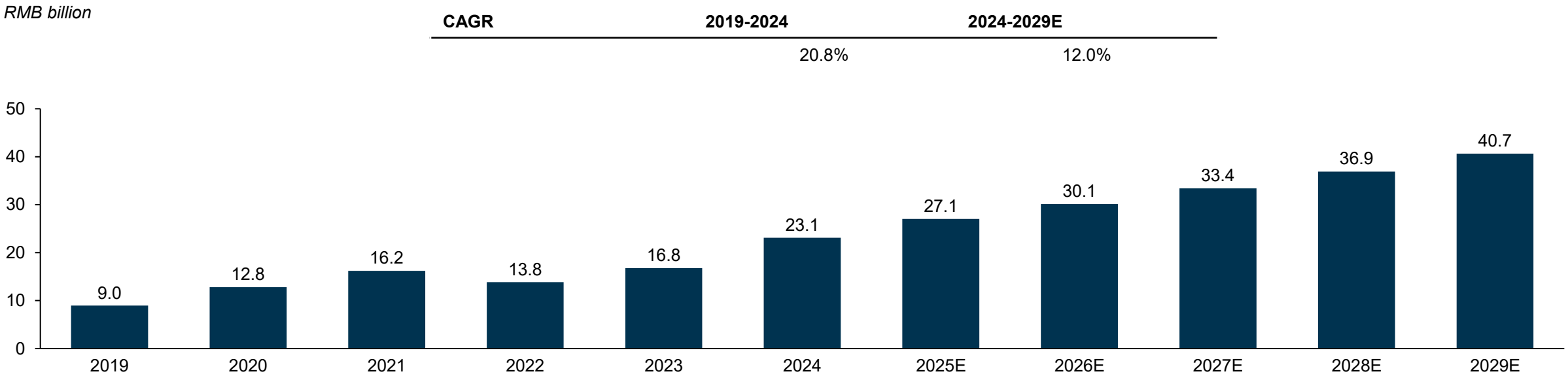
- Retail sales volume of the global folding bicycle industry increased from 2.0 million units in 2019 to 3.7 million units in 2024, representing a CAGR of 13.4% between 2019 and 2024. The decline in 2022 was primarily due to the public health emergency, which spurred a surge in demand for outdoor and individual activities, shifting folding bicycle consumption forward to 2020 and 2021 and resulting in more moderate consumption levels in 2022 and 2023. With the ongoing innovation in folding mechanisms, structure design, and materials, folding bicycles are expected to have better performance and comfort for urban commuters and even enthusiasts and professional cyclists. The market size of the folding bicycle industry, in terms of retail sales volume, is expected to reach 5.2 million units in 2029, indicating a CAGR of 7.3% between 2024 and 2029.
- The adoption of folding bicycles is highest in mainland China and other Asian origins, where smaller dwelling sizes, limited parking and permissive public-transport carriage make portability a core purchase criterion. Supported by an established cycling culture and the first/last-mile integration with rail networks, Europe shows medium-to-high penetration with demand tilting towards lightweight/performance and e-folding models. Northern America has lower but rising penetration concentrated in urban cores cities and recreational niches, with higher price elasticity and emphasis on comfort features. Oceania exhibits niche yet stable urban demand. Consistent with these patterns and as reflected in the revenue breakdown set out above, Mainland China accounts for the majority of revenue, while offshore sales are primarily derived from other Asian markets with smaller contributions from North America, Europe and Oceania.

Note: Retail sales volume refers to all retail sales of folding bicycles, including electric-assisted folding bicycles.

Source: China Insights Consultancy

Market size of the global folding bicycle industry, in terms of retail value

Market size of the global folding bicycle industry, in terms of retail value, 2019-2029E



Key Analysis

- Driven by increasing average spending per folding bicycle, the market size of the global folding bicycle industry increased from RMB9.0 billion in 2019 to RMB23.1 billion in 2024, representing a CAGR of 20.8% between 2019 and 2024. Looking ahead, folding bicycles are expected to appeal to a wider range of consumers, including recreational and professional users, due to improvements in performance, structure design, and lightweight materials. Folding bicycles are expected to combine the benefits of compactness and flexibility with enhanced durability and stability. The market size of the global folding bicycle industry, in terms of retail value, is expected to reach RMB40.7 billion in 2029, indicating a CAGR of 12.0% between 2024 and 2029.

Note: Retail sales value refers to all retail sales of folding bicycles, including electric-assisted folding bicycles.

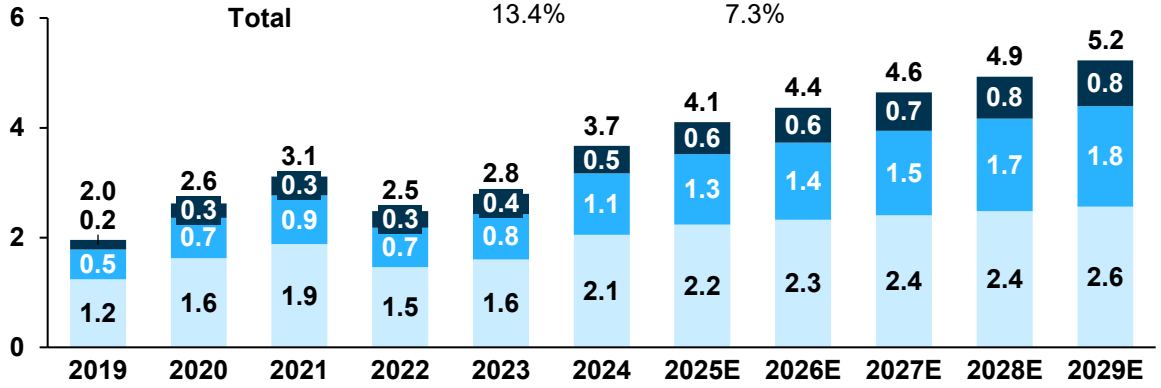
Source: China Insights Consultancy

Market size of the global folding bicycle industry by price range

Market size of the global folding bicycle industry, by price range, in terms of retail sales volume, 2019-2029E

Million units

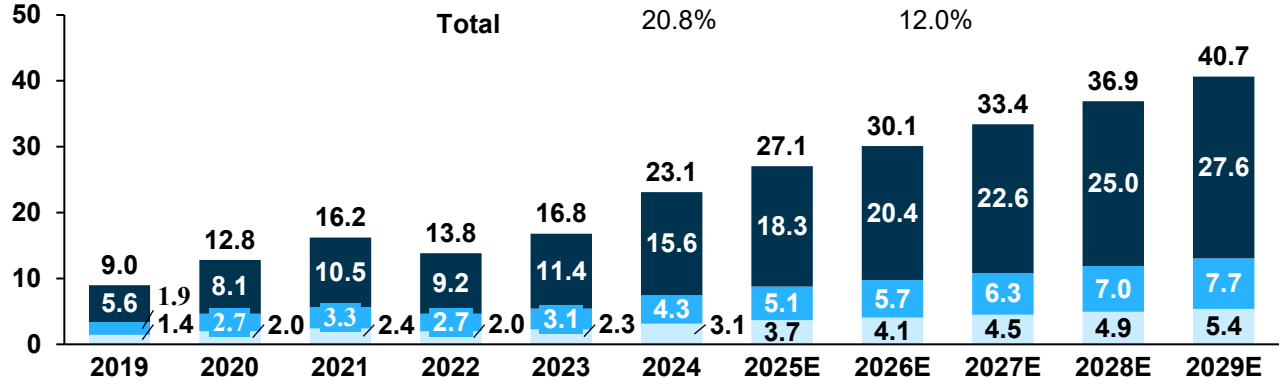
CAGR	2019-2024	2024-2029E
High end	23.3%	10.9%
Mid end	15.7%	10.4%
Mass	10.6%	4.5%
Total	13.4%	7.3%



Market size of the global folding bicycle industry, by price range, in terms of retail sales value, 2019-2029E

RMB billion

CAGR	2019-2024	2024-2029E
High end	22.7%	12.0%
Mid end	17.7%	12.0%
Mass	16.7%	11.5%
Total	20.8%	12.0%



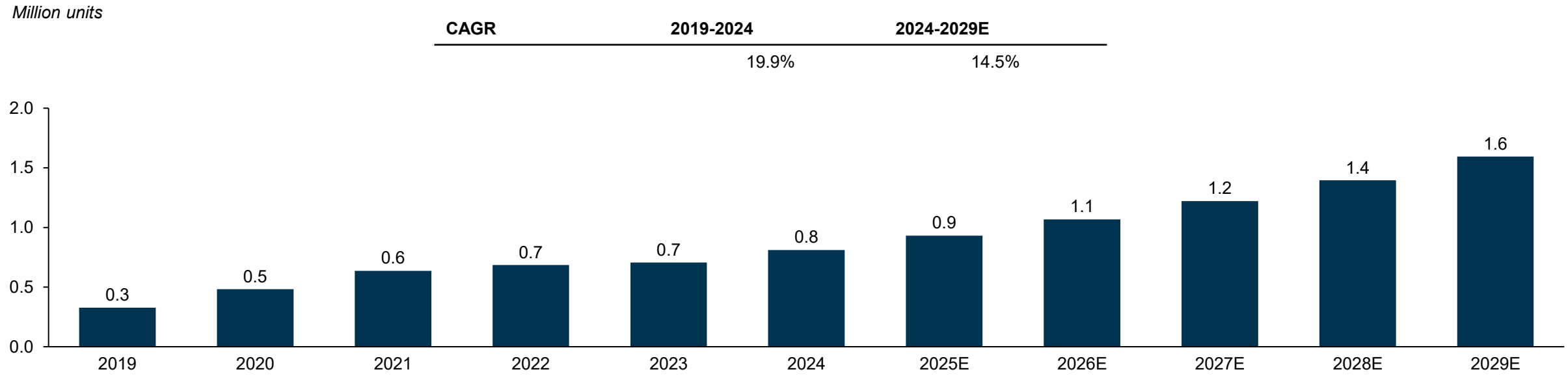
Key Analysis

- Folding bicycles can range across all price points, but they tend to be more mid end to high end compared to regular bicycles. The reason is that folding bicycles require more specialized engineering to make them compact and functional without sacrificing performance or durability. This makes them generally more expensive than traditional bicycles.
- In 2024, the mid end and high end segments of the global folding bicycle industry accounted for around 44.1% of the retail sales volume and 86.5% of the retail sales value. These segments have experienced faster growth due to their superior performance, durability, and comfort, appealing to consumers seeking efficient, portable transportation. Additionally, these bicycles are marketed as premium lifestyle products, emphasizing design and innovation. As folding bikes gain popularity globally, the demand for high-quality, versatile models is expected to continue rising. The mid end and high end segments of the global folding bicycle markets are expected to register a higher CAGR between 2024 and 2029 than the mass segment in both retail sales volume and value.

Source: China Insights Consultancy

Market size of mainland China’s folding bicycle industry, in terms of retail sales volume

Market size of mainland China’s folding bicycle industry, in terms of retail sales volume, 2019-2029E



Key Analysis

- Mainland China has been quickly emerging as a major market in the global folding bicycle industry, becoming the single largest market in terms of retail sales volume in 2024, with retail sales volume increasing from 0.3 million units in 2019 to 0.8 million units in 2024, registering a CAGR of 19.9% between 2019 and 2024. Retail sales volume of mainland China’s folding bicycle industry is expected to further increase, reaching 1.6 million units in 2029, indicating a CAGR of 14.5% between 2024 and 2029.

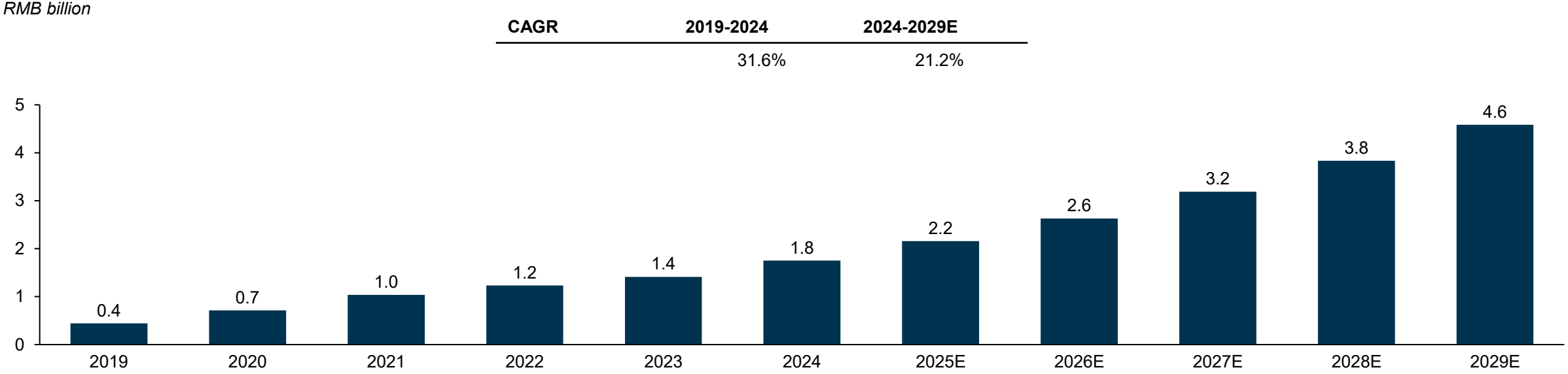
Note: Data excludes Taiwan.
Retail sales volume refers to all retail sales of folding bicycles, including electric-assisted folding bicycles.

Source: China Insights Consultancy

Market size of mainland China’s folding bicycle industry, in terms of retail value

Market size of mainland China’s folding bicycle industry, in terms of retail value, 2019-2029E

RMB billion



Key Analysis

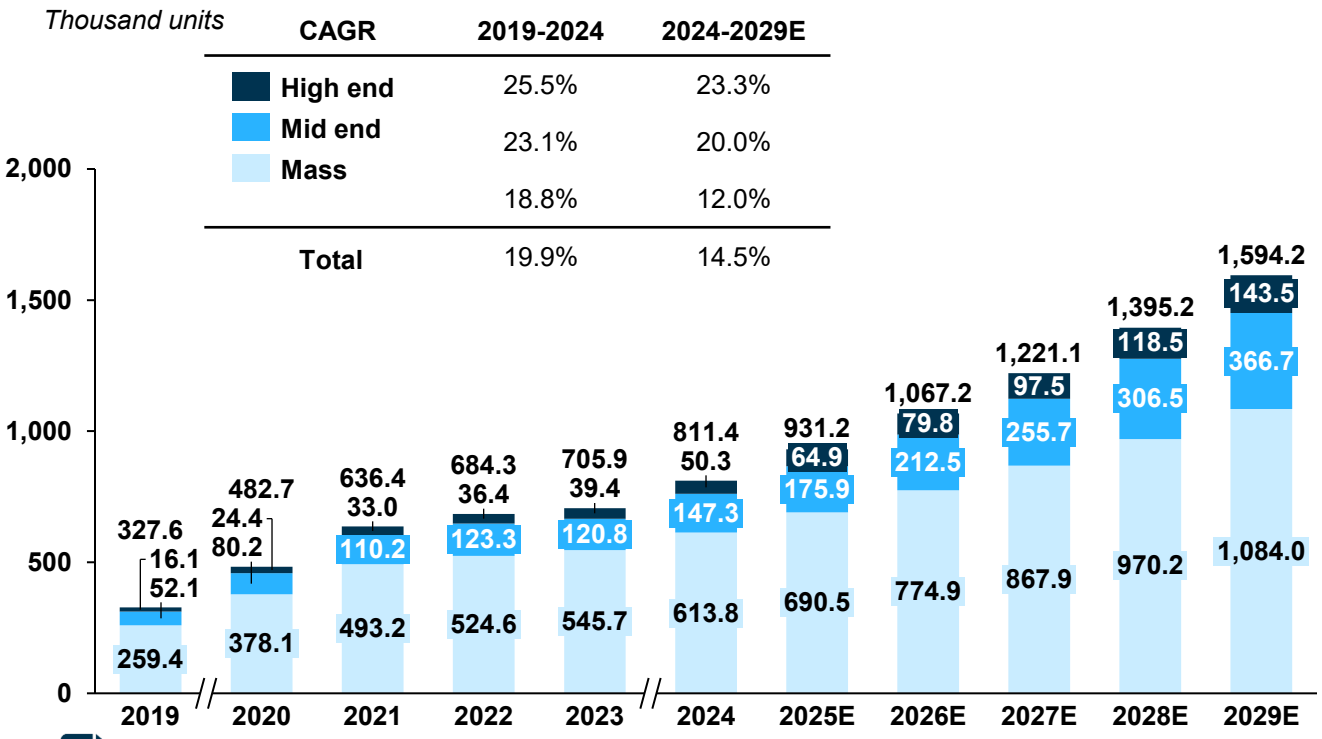
- The market size of mainland China’s folding bicycle industry, in terms of retail value, increased from RMB0.4 billion in 2019 to RMB1.8 billion in 2024, reflecting a CAGR of 31.6% over this period. Driven by innovation in folding mechanisms, structure design, and materials, rising purchasing power, and a growing preference for mid- to high-end folding bicycle products, the market size in terms of retail value is expected to reach RMB4.6 billion by 2019, representing a projected CAGR of 21.2% from 2024 to 2029.

Note: Data excludes Taiwan.
Retail sales value refers to all retail sales of folding bicycles, including electric-assisted folding bicycles.

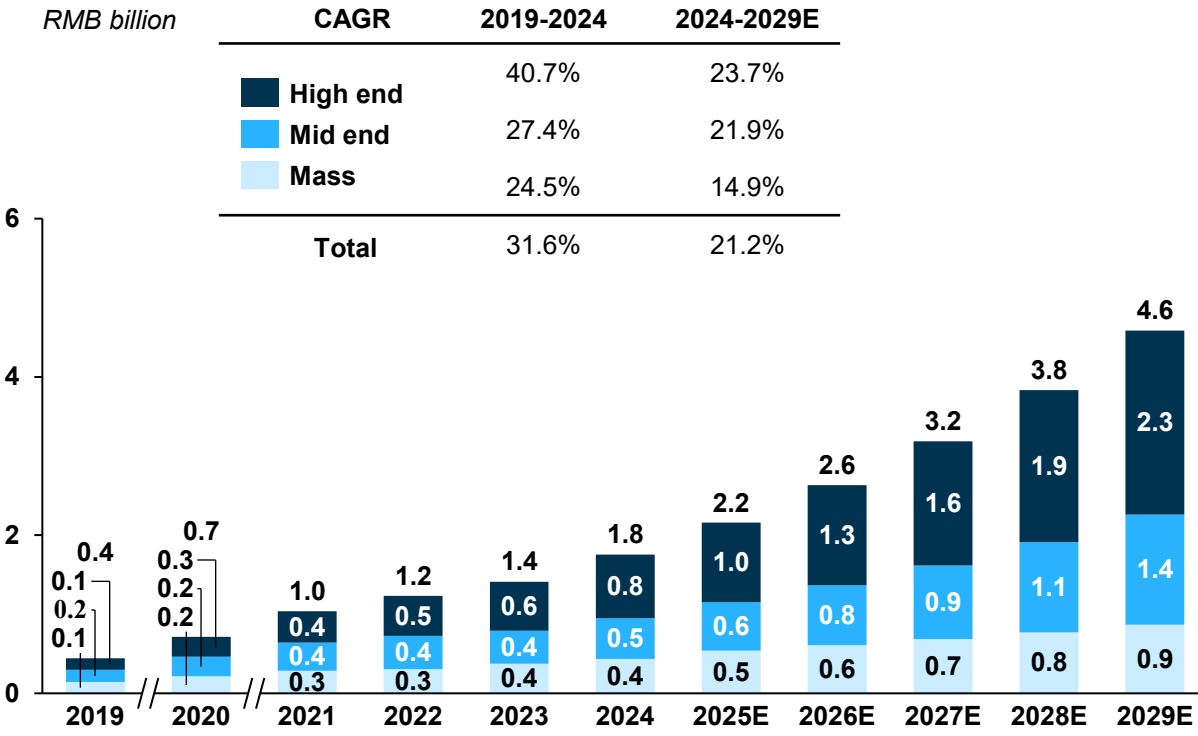
Source: China Insights Consultancy

Market size of mainland China's folding bicycle industry by price range

Market size of mainland China's folding bicycle industry, by price range, in terms of retail sales volume, 2019-2029E



Market size of mainland China's folding bicycle industry, by price range, in terms of retail sales value, 2019-2029E



Key Analysis

- In 2024, the mid end and high end segments of the mainland China's folding bicycle industry accounted for around 24.4% of the retail sales volume and 75.3% of the retail sales value. As the middle class grows and disposable incomes rise, more Chinese consumers are willing to purchase higher-end products, driving stronger growth potential for the mid and high end segments in the future.

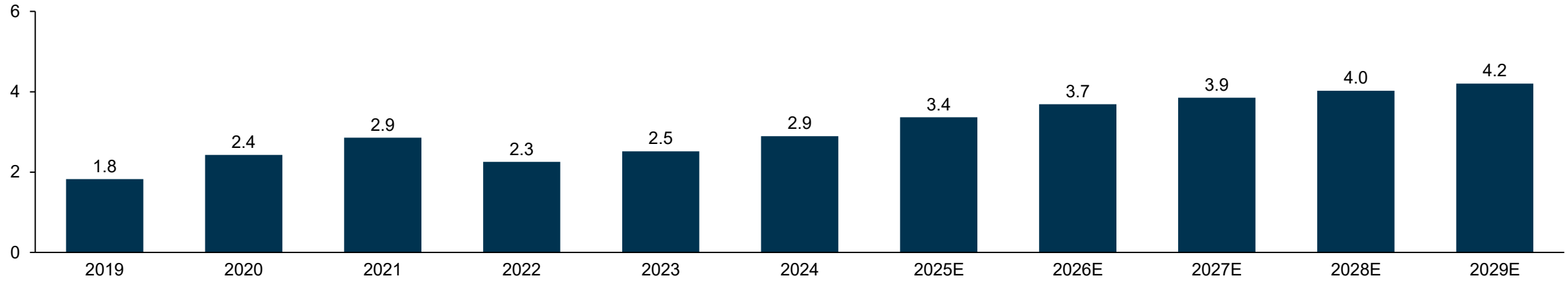
Source: China Insights Consultancy

Market size of mainland China’s folding bicycle industry, in terms of production volume

Market size of mainland China’s folding bicycle industry, in terms of production volume, 2019-2029E

Million units

CAGR	2019-2024	2024-2029E
	9.7%	7.8%



Key Analysis

- The market size of mainland China’s folding bicycle industry, in terms of production volume, declined from 2.4 million units in 2019 to 2.9 million units in 2024, registering a CAGR of 9.7% between 2019 and 2024. The production volume is expected to gradually grow, reaching 4.2 million units in 2029 with a CAGR of 7.8% between 2024 and 2029.

Note: Data excludes Taiwan.
Production volume refers to all retail sales of folding bicycles, including electric-assisted folding bicycles.

Source: China Insights Consultancy

Market drivers of the global folding bicycle industry

Increasing urbanization and space constraints	• The global urbanization rate has increased from 56.2% in 2019 to 58.3% in 2024, with approximately 4.9 billion people now residing in urban areas. Given that more than 80% of global GDP is generated in cities, urbanization plays a vital role in driving sustainable growth through enhanced productivity and innovation. This trend is anticipated to further accelerate urbanization in the coming years. As urban populations expand and space constraints intensify, the demand for folding bicycles has grown due to their practicality. Folding bicycles offer flexibility for commuters, as they can be easily folded and carried on public transport or stored in compact spaces, such as car trunks, making them ideal for multi-model transportation and last-mile travel. Their convenience and space-efficient design make them especially appealing to those with limited storage at home or work, supporting the continued growth of the global folding bicycle industry in the future.
Innovation in folding mechanisms, structure design, and materials	• Innovation in the folding bicycle industry has been driven by three key areas including folding mechanisms, structural design, and materials. The development of more sophisticated folding mechanisms offers faster and user-friendly folding processes, making folding bicycles an attractive option for those seeking efficient, multi-model travel solutions, therefore supporting gradual market growth. Improvements in structural design improves the performance and comfort of folding bicycles, expanding the consumer base to include not only urban commuters but also cyclists who prioritize performance and comfort on longer rides. The introduction of lightweight materials, such as carbon fibre and titanium, makes folding bicycles easier to carry while improving durability and aesthetics, increasing their practicality for daily use and recreational cycling. These innovations are expected to play a key role in driving market growth by making folding bicycles more practical, durable, and appealing to a broader range of consumers.
Increasing awareness of a healthy and fitness-oriented lifestyle	• With increasing awareness of the benefits of a healthy and fitness-oriented lifestyle, people are motivated to adopt activities that promote physical health, strength, and mental well-being. Cycling provides a holistic, low-impact exercise that aligns with these goals, while folding bicycles offer extra flexibility and convenience to the consumers. The "4+2" travel trend, which refers to combining four-wheeled vehicles with two-wheeled options like folding bicycles, is gaining traction as urban mobility solutions evolve. Indicators of this shift include the increasing adoption of multi-modal commuting, rising sales of folding bicycles among urban commuters and recreational users, and supportive urban mobility initiatives that promote integrated transport options. This makes folding bicycles especially appealing to health-conscious individuals seeking a bicycle that can better adapt to urban, space-limited environments, meeting both fitness and mobility needs. The rising focus on a fitness lifestyle is poised to drive substantial growth in the folding bicycle industry as more individuals prioritize physical well-being and sustainable living.
Increasing consumer preference for eco-friendly products	• As environmental awareness grows, individuals are increasingly seeking sustainable alternatives to reduce their carbon footprint. Folding bicycles, with zero emissions and significantly lower resource consumption than cars or motorbikes, perfectly align with this shift toward greener lifestyles. As concern for eco-friendly travel rises, folding bicycles present a sustainable and convenient alternative to cars, helping to reduce pollution and alleviate traffic congestion in cities worldwide. This preference for eco-conscious transportation is supporting the steady global growth of the folding bicycle industry.
Government initiatives aimed at improving cycling infrastructure	• In 2022, the Chinese government issued the *Outdoor Sports Industry Development Plan (2022-2025)*, aiming to grow the outdoor sports industry to over RMB3 trillion by 2025 through infrastructure expansion, equipment innovation, and cross-sector integration. The plan emphasizes cycling infrastructure, supporting demand for portable and folding bicycles. In April 2024, the European Council, Commission, and Parliament signed the *European Declaration on Cycling*, recognizing cycling as a sustainable, accessible, and affordable means of transport and committing to improve the quality and quantity of cycling infrastructure. In the United States, the *Bipartisan Infrastructure Law* passed by Congress in 2021 allocates funding for alternative transportation projects, including bicycle infrastructure. These initiatives are expected to drive future demand for folding bicycles.

Source: World Bank, China Insights Consultancy

Future trends of the global folding bicycle industry

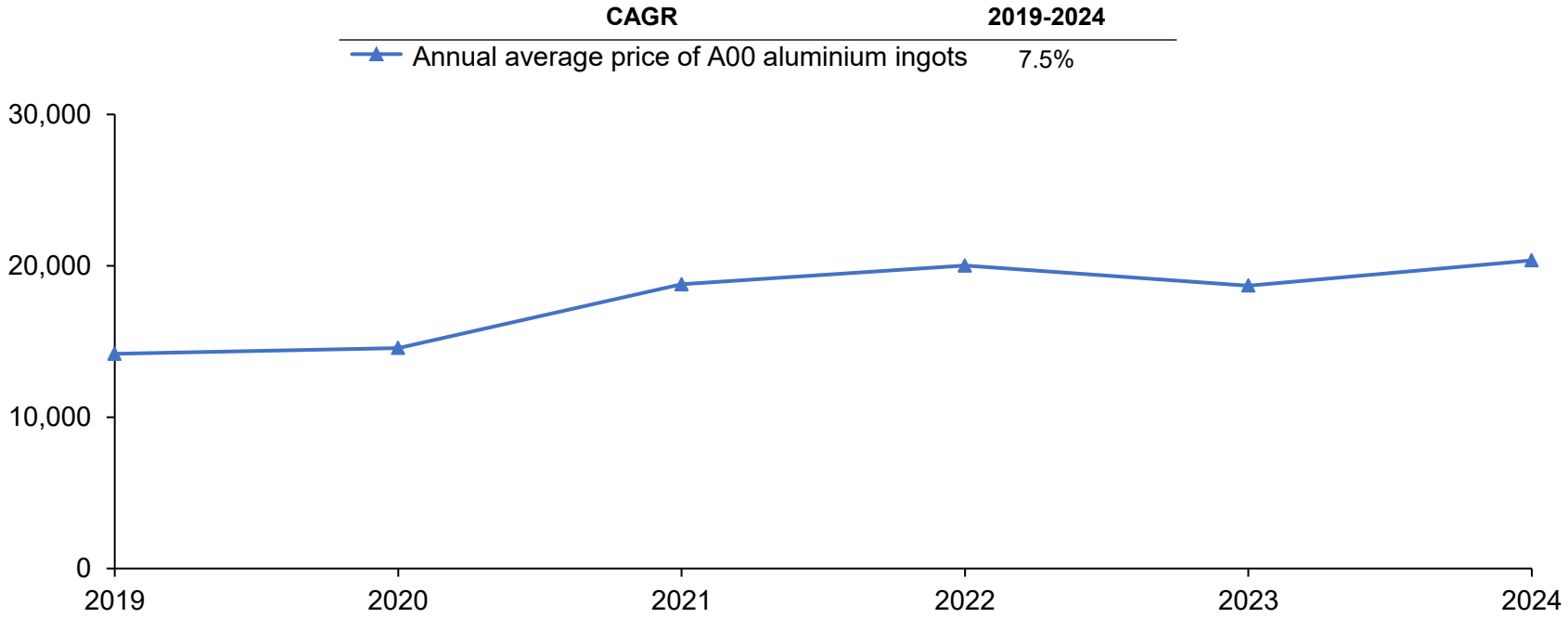
Further market segmentation by application scenarios	• As folding bicycles become more popular globally, one-size-fits-all approach may not fully capture the potential market. Designing bicycles for specific use cases or environments will make products more relevant to diverse consumer needs and lifestyles. By aligning product features with varied application scenarios, including urban commuting, recreational travel, off-road trails, and multi-modal transport, companies can better meet the expectations of riders in each category, ultimately driving customer satisfaction, brand loyalty, and market expansion in the folding bicycle industry.
Sustainable and eco-friendly production	• As people become more concerned with environmental impact, the industry is responding by adopting materials and manufacturing processes that minimize waste, reduce emissions, and conserve resources, ultimately contributing to a smaller carbon footprint for each bicycle produced. Manufacturers are exploring eco-friendly alternatives that not only lessen the environmental impact but also appeal to eco-conscious consumers who prioritize products made from renewable or recycled sources. As environmental awareness continues to grow, folding bicycle companies that adopt sustainable practices will likely gain competitive advantages.
Increased integration of electric assistance	• As electric-assisted bicycles become more popular due to their ease of use, ability to cover longer distance, and eco-friendly benefits, folding bicycle manufacturers are incorporating electric motors to make their models more versatile and attractive to a broader range of users. Besides, the electric-assist feature enhances the appeal of folding bicycles for individuals who may not be avid cyclists but want a sustainable and practical form of transportation. The compact nature of folding e-bikes allows for easy storage in small apartments, offices, or public transport, combining the convenience of folding with the power of an electric motor. The combination of advantages will make folding electric-assisted bicycles an increasingly popular choice.
Increasing integration of online and offline channel	• While offline stores remain the primary sales channel for folding bicycles, offering essential test-ride experiences and personalized services, online channels are becoming a complementary force. Manufacturers and retailers leverage e-commerce platforms, brand websites, and social media to expand reach and enhance customer engagement. Rather than replacing offline channels, online and offline integration creates a synergistic ecosystem, driving sales and forming a seamless purchase cycle. This fusion maximizes customer convenience, strengthens brand presence, and unlocks greater market potential for the industry.
Rise of Chinese folding bicycle brands in global markets	• Traditionally, Chinese folding bicycle manufacturers have primarily focused on ODM and OEM export models, supplying mid-to-low-end products for international brands. However, a new wave of Chinese folding bicycle companies is now establishing their own brands overseas. By emphasizing innovative design, quality control, and brand differentiation, these companies are positioning themselves in higher-value segments of the global market. This shift enables Chinese brands to build brand equity, capture more value in the international market, and reduce dependency on external partners. Leveraging China's strengths in manufacturing efficiency and digital marketing, these companies are well-poised to compete on the global stage, enhancing the perception of Chinese innovation and quality in the folding bicycle industry.

Source: China Insights Consultancy

Cost analysis of major raw material

Annual average price of major raw material, mainland China, 2019-2024

RMB/Ton



Key Analysis

- The major raw material for the industry is aluminium The annual average price of A00 aluminium ingots has shown a CAGR of 7.5% from 2019 to 2024, reflecting an overall increase in Aluminium prices over this period. Looking forward, aluminium prices are expected to remain relatively stable, with moderate fluctuations influenced by global supply and demand dynamics. The following graph illustrates the historical price trend of the key raw material, providing insights into their cost dynamics for the specified periods.

Source: China Insights Consultancy

Table of contents

- Overview of the Global and Mainland China’s bicycle industry
- Overview of the Global and Mainland China’s folding bicycle industry
- **Competitive landscape of the Global folding bicycle industry**
- Appendix

Competitive landscape of the global folding bicycle industry (1/4)

The top five folding bicycle companies, Global, in terms of retail sales volume[1], 2024

Ranking	Company	Company focus	Average retail price[2], RMB/unit	Retail sales volume, thousand	Market share,	Listing status
1	**The Company**	**specialized folding bicycle company**	**3,000**	**226.4**	**6.2%**	**Non-listed**
2	Decathlon	comprehensive bicycle company	2,500	165.0	4.5%	Non-listed
3	Phoenix	comprehensive bicycle company	500	148.4	4.0%	Listed
4	Forever	comprehensive bicycle company	500	93.5	2.5%	Listed
5	Brompton	specialized folding bicycle company	18,000	80.0	2.2%	Non-listed
	CR5			713.3	19.4%	
	Total			3,668.1	100.0%	

Key Analysis

- The folding bicycle industry constitutes a niche but fast-growing segment within the overall bicycle industry. Despite competition with other traditional bicycle types in urban mobility solutions, folding bicycles have successfully carved out their market position by addressing specific urban commuting challenges that traditional bicycles cannot fully resolve, particularly for users with limited storage space or multi-modal transportation needs. The global folding bicycle market is relatively concentrated with the top five companies capturing 19.4% of the market share in 2024 in terms of retail sales volume. The Company is the world's largest folding bicycle company, achieving a retail sales volume of 226.4 thousand units, representing 6.2% of the market share in 2024.

Note: 1. Refers specifically to the retail sales volume of folding bicycles, excluding sales of other types of bicycle.
2. Refers to the average retail selling price of folding bicycles of different companies.

Source: China Insights Consultancy

Competitive landscape of mainland China's folding bicycle industry (2/4)

The top five folding bicycle companies, mainland China, in terms of retail sales volume[1], 2024

Ranking	Company	Company focus	Average retail price, RMB/unit	Retail sales volume, thousand	Market share	Listing status
1	**The Company**	**specialized folding bicycle company**	**3,000**	**213.1**	**26.3%**	**Non-listed**
2	Phoenix	comprehensive bicycle company	500	118.7	14.6%	Listed
3	Forever	comprehensive bicycle company	500	93.5	11.5%	Listed
4	Decathlon	comprehensive bicycle company	2,500	40.0	4.9%	Non-listed
5	Brompton	specialized folding bicycle company	18,000	25.0	3.1%	Non-listed
CR5				490.3	60.4%	
Total				811.4	100.0%	

Key Analysis

- Mainland China's folding bicycle market is highly concentrated with the top five companies capturing 60.4% of the market share in 2024 in terms of retail sales volume. The Company is the largest folding bicycle company in mainland China achieving a retail sales volume of 213.1 thousand units, representing 26.3% of the market share in 2024.

Note: Refers specifically to the retail sales volume of folding bicycles, excluding sales of other types of bicycle

Source: China Insights Consultancy

Competitive landscape of the global folding bicycle industry (3/4）

The top five folding bicycle companies, Global, in terms of retail sales value[1], 2024

Ranking	Company	Company focus	Average retail price, RMB/unit	Retal sales value, million RMB	Market share	Listing status
1	Brompton	specialized folding bicycle company	18,000	1,440.3	6.2%	Non-listed
2	**The Company**	**specialized folding bicycle company**	**3,000**	**679.2**	**2.9%**	**Non-listed**
3	Decathlon	comprehensive bicycle company	2,500	412.5	1.8%	Non-listed
4	Birdy	specialized folding bicycle company	15,000	176.0	0.8%	Non-listed
5	Phoenix	comprehensive bicycle company	500	74.2	0.3%	Listed
CR5				2,782.2	12.0%	
Total				23,109.2	100.0%	

Key Analysis

- In terms of retail sales value, the top five folding bicycle companies globally accounted for 12.0% of the market share in 2024. The Company ranked second, achieving a retail sales value of RMB679.2 million, representing 2.9% of the market share.

Note: Refers specifically to the retail sales volume of folding bicycles, excluding sales of other types of bicycle

Source: China Insights Consultancy

Competitive landscape of the global folding bicycle industry (4/4）

The top five folding bicycle companies, mainland China, in terms of retail sales value[1], 2024

Ranking	Company	Company focus	Average retail price, RMB/unit	Retal sales value, million RMB	Market share	Listing status
1	**The Company**	**specialized folding bicycle company**	**3,000**	**639.4**	**36.5%**	**Non-listed**
2	Brompton	specialized folding bicycle company	18,000	450.0	25.7%	Non-listed
3	Decathlon	comprehensive bicycle company	2,500	100.0	5.7%	Non-listed
4	Phoenix	comprehensive bicycle company	500	59.4	3.4%	Listed
5	Forever	comprehensive bicycle company	500	42.1	2.4%	Listed
	CR5			1,290.8	73.7%	
	Total			1,752.6	100.0%	

Key Analysis

- In terms of retail sales value, the top five folding bicycle companies in mainland China accounted for 73.7% of the market share in 2024. The Company ranked first, achieving a retail sales value of RMB639.4 million, representing 36.5% of the market share.

Note: Refers specifically to the retail sales volume of folding bicycles, excluding sales of other types of bicycle

Source: China Insights Consultancy

Introduction of the top participants in the global folding bicycle industry

Introduction of top participants

Company	Location	Primary market region	Business model	Description
The company	California, USA	Global	Manufacturer, Retailer & Exporter	• Founded in 1982, Dahon is a leading global manufacturer of folding bicycles, known for its lightweight and easily foldable designs, sold in many countries worldwide.
Brompton	London, UK	Europe, North America, Asia	Manufacturer, Retailer & Exporter	• Established in 1976 in London, Brompton is a non-listed company positioning at the mid-to-high end market, that designs, manufactures folding bicycles primarily in the UK and distributes them to the global market.
Bike Friday	Oregon, USA	North America, Europe, Asia	Manufacturer & Exporter	• Founded in 1992, Bike Friday offers custom folding bicycles, known for their handcrafted quality, catering to travelers and commuters alike.
Birdy	Frankfurt, Germany	Europe, Asia	Manufacturer & Exporter	• Founded in 1995 in Germany, Birdy is known for its full suspension system and unique folding design, making it suitable for a variety of terrains.
Montague Bike	Massachusetts, USA	North America, Europe, Asia	Manufacturer & Exporter	• Established in 1987, Montague specializes in full-size folding bikes, including mountain and road bikes, ideal for long-distance cycling and adventure.

Source: China Insights Consultancy

Introduction of the top participants in the global bicycle industry (1/2)

Introduction of top participants

Company	Location	Primary market region	Business model	Description
Giant (捷安特)	Taiwan, China	Global	Manufacturer, Retailer & Exporter	• Founded in 1972 in Taiwan, Giant is among the world's largest bicycle manufacturers, producing mountain, road, and electric bikes for global markets.
Phoenix (上海凤凰)	Shanghai, China	Asia, Europe, Africa	Manufacturer, Retailer & Exporter	• Established in 1993 in Shanghai, Phoenix is a listed company positioning at the mass market, that manufactures and distributes bicycles including various types in China and overseas
Forever (上海永久)	Shanghai, China	Asia, Africa	Manufacturer & Exporter	• Established in 1995 in Shanghai, Forever is a listed company positioning at the mass market, that manufactures and distributes bicycles including various types in China and overseas.
Battle (富士达)	Tianjin, China	Asia, Europe, South America	Manufacturer & Exporter	• Established in Tianjin, China, Battle is one of the leading bicycle manufacturers, offering mountain bikes, road bikes, and city bikes for both domestic and international markets.
XDS (喜德盛)	Shenzhen, China	China, North America, Europe, Southeast Asia	Manufacturer & Exporter	• Founded in 1995 in Shenzhen, XDS focuses on lightweight, innovative bicycles, exporting to over 50 countries with a strong global reputation.

Source: China Insights Consultancy

Introduction of the top participants in the global bicycle industry (2/2)

Introduction of top participants

Company	Location	Primary market region	Business model	Description
Trek	Wisconsin, USA	North America, Europe, Asia	Manufacturer, Retailer & Exporter	• Established in 1976 in Wisconsin, USA, Trek is known for its high-end road and mountain bikes, with a strong presence among professional and recreational riders.
Specialized	California, USA	North America, Europe, Asia	Manufacturer, Retailer & Exporter	• Founded in 1974 in California, Specialized focuses on high-performance bikes, including road, mountain, and electric models.
Decathlon	France	Global	Manufacturer, Retailer & Exporter	• Established in 1976 in France, Decathlon is a non-listed company positioning at the mid-to-high end market, that designs, manufactures, and distributes a wide range of sports and outdoor equipment, including bicycles, to the global markets.
Scott	Switzerland	Europe, North America, Asia	Manufacturer & Exporter	• Founded in 1958 in Switzerland, Scott is recognized for its innovative designs, offering a wide range of road, mountain, and electric bikes.
Merida（美利达）	Taiwan, China	Global	Manufacturer & Exporter	• Established in 1972 in Taiwan, Merida is a leading manufacturer of high-quality, affordable bikes with a global customer base.

Source: China Insights Consultancy

Entry barriers and key success factors of the global folding bicycle industry（1/2）

Brand recognition and trust	• Established brands have built trust over time by consistently delivering high-quality products and customer service. Their reputations are reinforced through positive customer experiences, favorable reviews, and word-of-mouth recommendations, making them the go-to choice for new and returning customers alike. New entrants, however, face the challenge of gaining similar levels of trust without an established track record.
Proprietary R&D capabilities and patented technologies	• Folding bicycles require intricate mechanisms that enable the bicycle to fold into a compact and portable size without compromising safety, stability, or comfort. This unique requirement demands advanced technological knowledge and engineering skills. Leading companies have developed innovative solutions that set their products apart in the market, by leveraging our proprietary R&D capabilities and patented technologies. Their dedication to technological advancement not only ensures superior product performance but also creates significant entry barriers for competitors lacking comparable expertise or innovation capabilities.
Economies of scale of production	• Established companies can spread fixed costs, such as machinery, facilities, and R&D investments, over a large volume of units. This reduces the per-unit cost of production, enabling them to offer folding bicycles at more competitive prices while maintaining profit margins. For new entrants, achieving similar economies of scale is difficult due to lower initial production volumes, which can lead to higher costs per unit for materials, labour, and logistics. They may face higher material and component costs due to lack of buying power, putting them at a price disadvantage in the market. As a result, economies of scale serve as a substantial entry barrier, giving larger, established companies a competitive edge in pricing, supply chain efficiency, and market penetration in the folding bicycle industry.
Strategic supply chain diversification	• Leading companies strategically distribute their supply chains across multiple countries and regions to mitigate risks associated with geopolitical tensions, trade barriers, and supply disruptions. This approach ensures greater resilience, enhances operational flexibility, and safeguards production continuity. By adopting diversified supply chain strategies, they can better navigate global uncertainties and maintain a competitive edge in the market.

Source: World Bank, China Insights Consultancy

Entry barriers and key success factors of the global folding bicycle industry (2/2)

Well-established distribution network	• Established folding bicycle manufacturers typically have long-standing relationships with a network of distributors, retailers, and e-commerce platforms, enabling them to reach a wide customer base at both local and global levels. These relationships allow established brands to secure prime retail space, maintain consistent stock levels, and optimize shipping logistics, all of which contribute to better brand visibility and customer trust. New entrants, however, often lack these established partnerships and may face difficulty negotiating shelf space or favourable terms with retailers, limiting their market reach.
Penetration-related regulatory and urban-ecosystem barriers (PRC and global)	• The penetration of folding bicycles is materially shaped by local policies and infrastructure — including metro/bus carriage rules, availability and security of public-space parking, and micro-mobility regulations — as well as safety-standards and certification regimes (e.g., PRC GB/CCC, EU EN/CE and U.S. CPSC). New entrants must localize products and operations across heterogeneous city and country rules, secure access to commuter channels and on-site assembly/demonstration, and build trained service coverage. The need for localization, certification and ecosystem building lengthens time-to-market and raises capital requirements, creating a substantive barrier to penetration in both the PRC and overseas markets.
Reliable after-sale services	• Reliable after-sale services include offering warranty repairs, providing easy access to spare parts, maintaining service centers, and ensuring customer support. In the folding bicycle industry, after-sale services are particularly critical because of the specialized nature of these bicycles, which involve complex folding mechanisms, lightweight materials, and, increasingly, electric components that may require maintenance or repair. Established brands typically have dedicated service networks and a streamlined infrastructure to handle after-sale support. These resources enable them to quickly address customer issues, perform necessary repairs, and honor warranty claims, all of which contribute to a positive customer experience. For new entrants, building a reliable after-sale service network is challenging due to the high costs and logistical complexity involved, making it difficult for new entrants to compete with existing market players.

Source: World Bank, China Insights Consultancy

Challenges of the global folding bicycle industry

Competition from alternative micro-mobility solutions

- The global folding bicycle industry faces competition from alternative micro-mobility solutions, including e-scooters, shared bicycles, and electric bikes, which offer similar convenience and portability. The expansion of bike-sharing and e-scooter rental programs in urban areas also reduces the need for personal bicycle ownership, especially among commuters who prefer on-demand options. As cities invest in integrated mobility ecosystems, folding bicycles must enhance their design, affordability, and seamless compatibility with multi-modal transport networks to maintain their relevance and competitive edge in the evolving urban mobility landscape.

Lack of bicycle-friendly infrastructure

- The global folding bicycle industry has significant growth potential, but its expansion is influenced by the availability of bicycle-friendly infrastructure. In cities with limited bike lanes, secure parking, and integration with public transport, cyclists may face challenges in adopting bicycles for daily commuting. However, as governments increasingly prioritize sustainable urban mobility, there is growing investment in bike-friendly policies, expanded cycling networks, and improved multi-modal transport integration. By aligning with these developments and advocating for safer, more accessible cycling infrastructure, the folding bicycle industry can position itself as a key player in the future of urban, space-efficient mobility solutions。

Limited awareness and adoption

- The global folding bicycle industry holds great potential, but limited awareness and adoption remain challenges in certain markets. Many consumers are still unfamiliar with the practical benefits of folding bicycles, such as their portability, space efficiency, and compatibility with multi-modal commuting. Additionally, some perceive them as less durable or less comfortable than traditional bicycles. However, as urban mobility trends shift toward sustainable and flexible transport solutions, awareness is steadily increasing. Through effective marketing, educational campaigns, and visible adoption in public bike-sharing programs, the industry can highlight the advantages of folding bicycles, encouraging more commuters to embrace their versatility and convenience.

Analysis of the Dahon's competitive advantages (1/2)

Established global brand leader	• With over 40 years of expertise, the company has become a pioneering force in the folding bicycle industry. Founded in 1982 by Dr. David Hon, a distinguished physicist, the company introduced the world to a new category of compact, portable bikes, sparking a folding bike revolution. Today, the company is celebrated as the global leader in folding bicycles and holds a Guinness World Record as the largest folding bike producer. Dr. Hon's achievements, including awards from the American Chamber of Commerce and the China Bicycle Association, have further elevated the brand's reputation. The company's products are frequently awarded in design and innovation competitions, reflecting the company's enduring commitment to quality and its recognition as a trusted global brand.
Innovative technology powerhouse	• Reliable after-sale services include offering warranty repairs, providing easy access to spare parts, maintaining service centers, and ensuring customer support. In the folding bicycle industry, after-sale services are particularly critical because of the specialized nature of these bicycles, which involve complex folding mechanisms, lightweight materials, and, increasingly, electric components that may require maintenance or repair. Established brands typically have dedicated service networks and a streamlined infrastructure to handle after-sale support. These resources enable them to quickly address customer issues, perform necessary repairs, and honor warranty claims, all of which contribute to a positive customer experience. For new entrants, building a reliable after-sale service network is challenging due to the high costs and logistical complexity involved, making it difficult for new entrants to compete with existing market players.
Highly efficient production network	• The company's production system includes ISO-certified facilities and an annual production capacity exceeding 1 million units, catering to a wide global market. With a portfolio of over 15 series and 300 models, ranging from mountain bikes to carbon fiber designs, the company meets diverse consumer needs in more than 70 countries. The company's extensive manufacturing and storage facilities allow it to accommodate large-scale and high-volume orders seamlessly. Its modernized production lines, paired with a globally distributed warehousing system, ensure that the company can support extensive supply requirements and deliver on time across varied market demands.
Streamlined management and quality control	• The company utilizes sophisticated management software, such as SAP for enterprise resource planning, CRM for customer relations, and PLM for tracking product lifecycles, ensuring consistent quality and smooth operations. The integration of these systems enhances resource coordination and provides data-driven insights that support timely decision-making. The company also applies stringent policies for staff performance evaluation, including PDCA and KPI frameworks to reinforce accountability and efficiency at every organizational level. This structured and technology-enabled approach not only supports high-quality output but also strengthens a culture of precision and discipline, enabling the company to sustain a leading edge in the industry.

Source: China Insights Consultancy

Analysis of the Dahon’s competitive advantages (2/2)

Comprehensive distributor support	• The company maintains strong partnerships with its distributors by offering robust support to help them succeed. This includes marketing initiatives, training programs, and a unified pricing strategy that preserves distributor margins. The company also provides exclusive regional protections, preventing price competition among local distributors. To ensure customer satisfaction and brand loyalty, the company has introduced a lifetime warranty on select frames and forks, a testament to the durability and quality of its products. This well-rounded support system fosters trusted relationships and stable market growth for the company and its partners.
Inclusive corporate culture and mission	• The company promotes a cohesive, family-oriented workplace culture, creating an environment where employees work toward shared goals. Its mission emphasizes sustainable transportation and low-carbon living, aligning with the growing demand for eco-friendly practices. To boost team morale, the company incorporates cultural elements such as a company anthem, reinforcing a sense of belonging among employees. Through various team-building activities, celebrations, and welfare programs, the company fosters an inclusive atmosphere that motivates employees to contribute positively to the company’s vision and growth trajectory, ultimately strengthening its foundation for success.
Strategic growth and expansion plans	• The company is committed to expanding its global footprint with a keen focus on the e-bike market, leveraging its proprietary “Fast Track” technology to lead in innovation. The company actively invests in live-stream sales, cross-border e-commerce, and regional partnerships to reach new audiences. It has plans to open new production facilities and establish joint ventures, especially in Europe, to capitalize on the region’s demand and manage tariff impacts. By acquiring or partnering with local manufacturers, the company aims to expand its product offerings while streamlining costs, making it well-positioned for sustained growth and market diversification.

Source: China Insights Consultancy

Technical advantage of Dahon

Technical pain points of folding bicycles

The company's "D-Velo" speed technology effectively addresses industry pain points.

Low frame rigidity

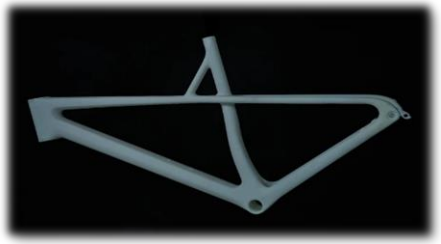
- To reduce weight, bicycles are designed with flexible sides.
- To reduce costs, folding bicycles replace triangular frames with single tubes, which compromises frame stability and rigidity.

Low pedaling efficiency

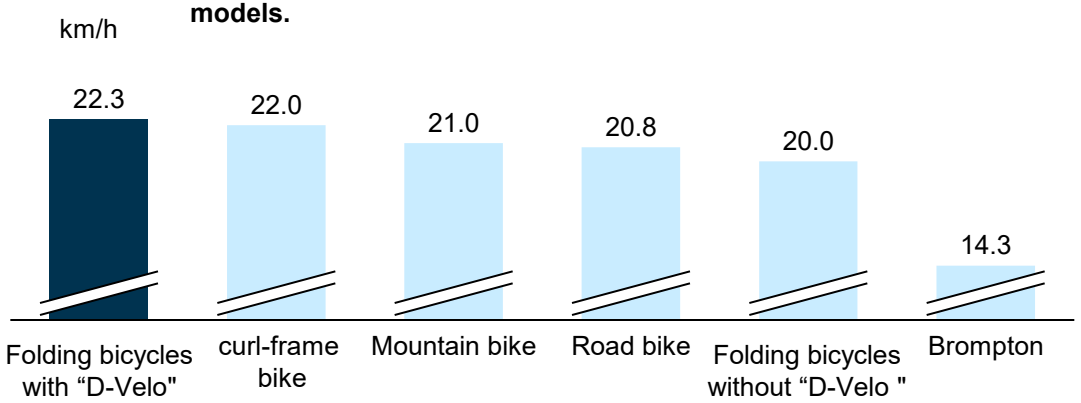
- Low frame rigidity results in the rider's power not transferring effectively into propulsion, increasing energy loss and reducing riding efficiency.

Low durability

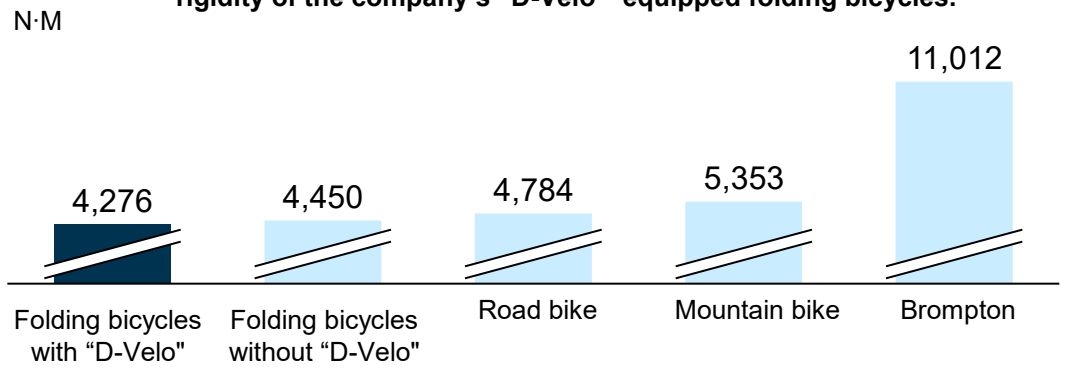
- Folding chains bear 5-10 times the rider's weight in bending stress during riding, clearly limiting the lifespan of alternative folding chain systems, thus also limiting the bicycle's overall lifespan.。



- **Folding bicycles equipped with the company's "D-Velo" have the highest speed and significant performance improvements, 56.5% faster than competitor Brompton models.**



- **Folding bicycles equipped with the company's "D-Velo" have the lowest energy waste, saving half the energy compared to competitor Brompton, which also reflects the superior frame rigidity of the company's "D-Velo " equipped folding bicycles.**



Source: China Insights Consultancy

Leading cycling and related public companies enjoy high P/E ratios, driven by strong market positions and growth prospects in the global cycling industry

Company	CODE	Listing Venue	2023 Revenue RMB billion	Gross margin	Net margin	P/E TTM	Market cap RMB billion	Main business
Shimano	7309	TSE	23.87	38.5%	12.9%	48.12	95.35	• Shimano is a global leader in the manufacture of bicycle gear-shifting systems and, similar to the company, serves as a top supplier for core bicycle components.
Giant	9921	TWSE	17.13	22.1%	4.3%	23.29	15.50	• Giant is dedicated to the research and development, as well as the production, of bicycles and related accessories. Its product range encompasses the needs of sports, leisure, and urban cycling.
Merida	9914	TWSE	8.24	17.3%	5.7%	34.58	11.72	• Merida is dedicated to the research and development, as well as the production of various types of bicycles and accessories.
Ninebot	689009	SSE	10.22	26.9%	5.8%	28.35	33.70	• Ninebot's primary products are electric balance scooters and electric kick scooters, with the company similarly focusing on green transportation solutions.

Note: as at 8 November, 2024

Source: China Insights Consultancy

Table of contents

- Overview of the Global and Mainland China’s bicycle industry
- Overview of the Global and Mainland China’s folding bicycle industry
- Competitive landscape of the Global folding bicycle industry
- **Appendix**

Verification material (1/2)

- As of April 30, 2025, the Company hold 113 patents in mainland China, making it the brand with the highest number of patents in China's folding bicycle industry. The Company also hold 22 effective patents in the U.S., Europe and Japan as of the same date.
- Among the top five folding bicycle companies in mainland China in terms of sales volume in 2024, the Company achieved the fastest growth rate in sales volume and revenue from 2023 to 2024.
- The Company established the first dedicated folding bicycle testing center in mainland China through which the Company examine each batch of our products, regardless of whether produced in-house or externally.
- Dr. Hon's invention brought the first commercialized modern folding bicycle brand to market, opening new possibilities for urban mobility.
- The Company is an industry leader in folding bicycle production technology and manufacturing processes.
- Technologies developed by Dr. Hon have been widely adopted in the folding bicycle industry.
- The Company's product return and exchange policy for distributors is common in the industry.
- Unconditional product return is a standard practice of major e-commerce platform to attract consumer traffic.
- The relatively favorable product return policy granted to retailers like Sam's Club and JD.com is standard practice among major retailers of their scale in the industry due to their strong bargaining power.
- Tiered retail structure, for example, flagship stores, shop-in-shop stores and dealer stores, is a common industry practice in the bicycle sector, which enables efficient market penetration while maintaining appropriate levels of brand presence across different retail environments.
- Despite the Company's status as one of the leading companies in the global folding bicycle industry, the global folding bicycle market is characterized by intense competition.
- Despite competition with other traditional bicycle types in urban mobility solutions, folding bicycles have successfully carved out their market position by addressing specific urban commuting challenges that traditional bicycles cannot fully resolve, particularly for users with limited storage space or multi-modal transportation needs.
- Some of our products are positioned at the premium segment, compared to the whole industry, they are priced at a premium, determined by after considering factors such as our aesthetic design, technologies, product quality and brand reputation. However, increased competition, market dynamics and changes in customer demands and preferences may occasionally compel the Company to adjust their pricing strategies, potentially lowering the selling prices and retail prices of their products or requiring us to reallocate funds towards marketing initiatives, advertising campaigns, promotional activities, or sales incentives to stay competitive and maintain our market position. The highly fragmented and competitive nature of our industry creates increasing pricing pressure from our peers, with the risk that the price of our products may eventually be lowered in view of such increasing competition, thereby leading to a prospective decrease in our profit margins.

Source: China Insights Consultancy

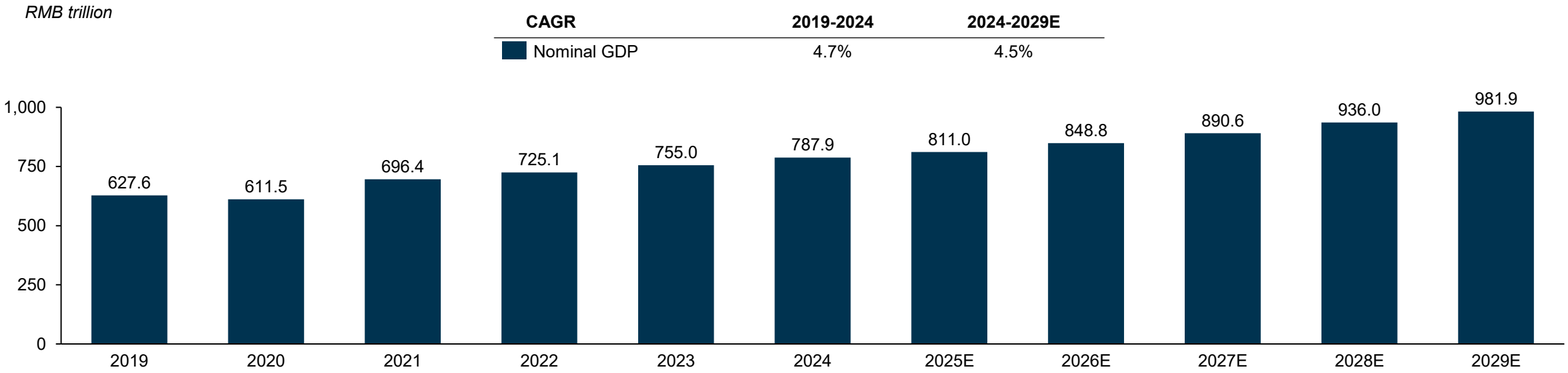
Verification material (2/2)

- The global bicycle market is highly fragmented, with numerous established manufacturers competing across various segments including among others traditional, mountain, road and folding bicycles.
- The bicycle industry and its folding bicycle segment are highly fragmented and there were over 200 market players in the global folding bicycle industry and over 3,000 market players in the global bicycle industry as of December 31, 2024.
- The public health emergency in 2020 had triggered a global sales boom for bicycles. The global bicycle market is poised for continued growth, driven by increasing public environmental awareness worldwide carbon neutrality initiatives and green mobility policies, though the growth rate is expected to be relatively low with the retail volume increasing from approximately 178.8 million units in 2024 to approximately 201.6 million units in 2029, at a CAGR of 2.4%.
- The global folding bicycle market, as one of the niche segments in the overall bicycle market, accounts for 5.3% of the global bicycle market by retail sales value and 2.1% by retail sales volume in 2024.
- The global folding bicycle market is characterized by intense competition where four of the Company's major competitors had occupied 13.2% of the market share of the global folding bicycle market in terms of retail sales volume in 2024.
- In terms of retail sales volume in 2024, the Company held significant positions in both the mainland China and global folding bicycle industries, representing market shares of 26.3% and 6.2%, respectively, and the Company also led both mainland China and global folding bicycle industries in terms of retail sales value in 2024, representing market shares of 36.5% and 2.9%, respectively.
- The Company is an industry leader in folding bicycle production technology and manufacturing processes.
- In mainland China's bicycle and folding bicycle industry, distributors in general tend to build up sufficient inventory before the Chinese New Year to meet the increasing sales demand after the holiday. The pre-holiday stocking cycle is generally equivalent to approximately 2 months of average sales, to mitigate production and logistics shutdowns during the holiday. This stocking pattern—widely observed among major folding- and conventional-bicycle brands—varies modestly by region (northern vs. southern climates) and retail format (flagship, shop-in-shop, independent dealer), and is therefore regarded as a normal working-capital cycle rather than an indication of excess inventory.
- In mainland China's bicycle and folding bicycle industry, the maintenance of sample bicycles for display and test ride purposes and maintain safety level of inventory before public holidays are standard industry practices necessary for effective marketing and sales of bicycle products.

Source: China Insights Consultancy

Global nominal GDP has increased from RMB 627.6 trillion in 2019 to RMB 787.9 trillion in 2024. With sustained economic growth, global nominal GDP is expected to reach RMB 981.9 trillion by 2028.

Nominal GDP, Global, 2019-2029E



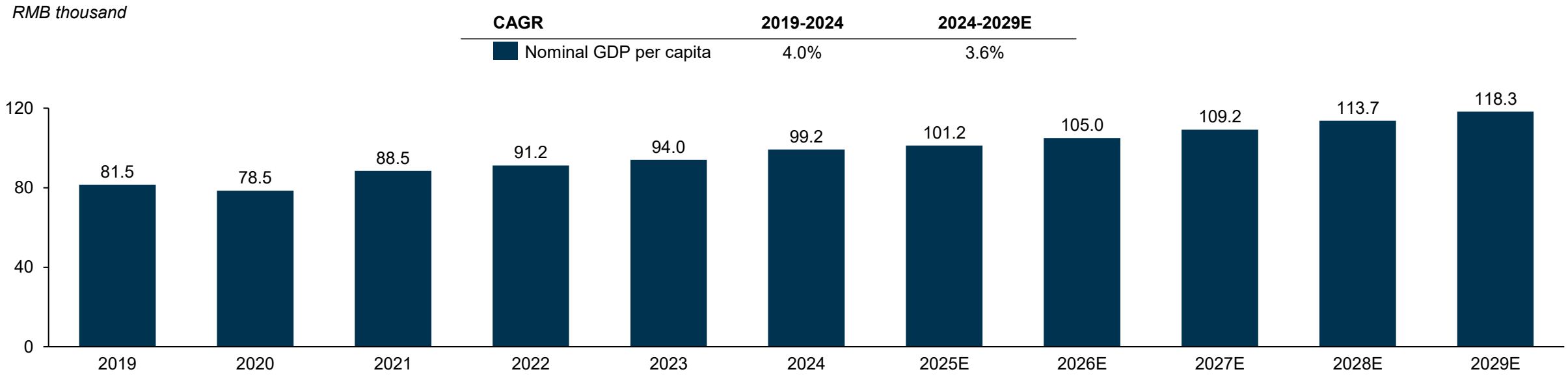
Key Analysis

- The global nominal GDP has demonstrated a steady increase from RMB 627.6 trillion in 2019 to RMB 787.9 trillion in 2024, achieving a CAGR of 4.7% over this period. Looking forward, global GDP growth is projected to continue, with an estimated CAGR of 4.5% from 2024 to 2029. By 2029, the global nominal GDP is expected to reach RMB 981.9 trillion. This upward trend reflects the sustained economic expansion across regions, driven by factors such as technological advancements, increased global trade, and economic recovery in various sectors. The following graph provides a detailed view of the historical and projected GDP figures for the specified periods.

Source: NBS, IMF, China Insights Consultancy

Global per capita nominal GDP has increased from RMB 81.5 thousand in 2019 to RMB 99.2 thousand in 2024. With continued economic growth, global per capita nominal GDP is expected to reach RMB 118.3 thousand by 2029.

Per capita nominal GDP, Global, 2019-2029E



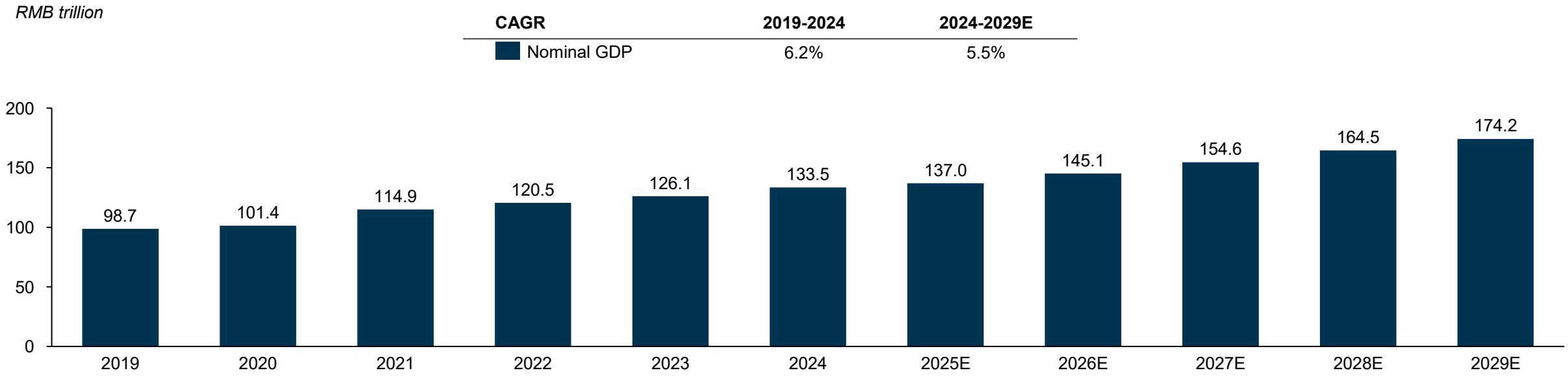
Key Analysis

- The global per capita nominal GDP has shown steady growth, increasing from RMB 81.5 thousand in 2019 to RMB 99.2 thousand in 2024, with CAGR of 4.0% over this period. Projections indicate that this growth will continue at an accelerated rate, with an estimated CAGR of 3.6% from 2024 to 2029, reaching RMB 118.3 thousand by 2029. This trend reflects improvements in average income levels globally, supported by economic expansion across various regions. The graph illustrates the historical and projected values for per capita nominal GDP, providing insights into expected growth patterns.

Source: NBS, IMF, China Insights Consultancy

China’s nominal GDP has increased from RMB98.7 trillion in 2019 to RMB133.5 trillion in 2024. With the continued development of China’s economy, China’s nominal GDP is expected to reach RMB174.2 trillion by 2029

Nominal GDP, China, 2019-2029E



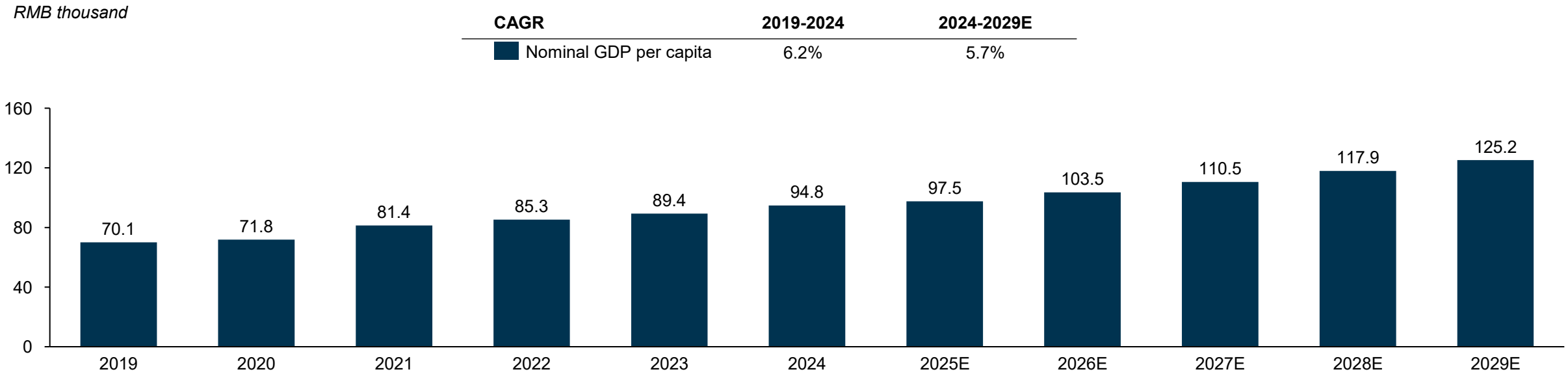
Key Analysis

- China’s economy has experienced growth over the past several years, with its nominal GDP increasing from RMB98.7 trillion in 2019 to RMB133.5 trillion in 2024. With the continued development of China’s economy, China’s nominal GDP is expected to maintain this growth momentum in the near future to reach RMB174.2 trillion by 2029.
- China’s economy is in the process of slowly transitioning from a state-led investment model to a consumption-driven model. This transition process has contributed to a partial reduction in the growth rate of the economy in recent years in order to optimize the economic structure for high-quality growth in the future.In the future, with growing domestic consumption demand and with the Chinese government continuing to adhere to its opening-up policy, China’s economy is expected to grow at a stable and sustainable pace over the long run.

Source: NBS, IMF, China Insights Consultancy

China’s per capita nominal GDP has increased from RMB70.1 thousand in 2019 to RMB94.8 thousand in 2024. In the next five years, China’s per capita nominal GDP is expected to reach RMB125.2 thousand by 2029

Per capita nominal GDP, China, 2019-2029E



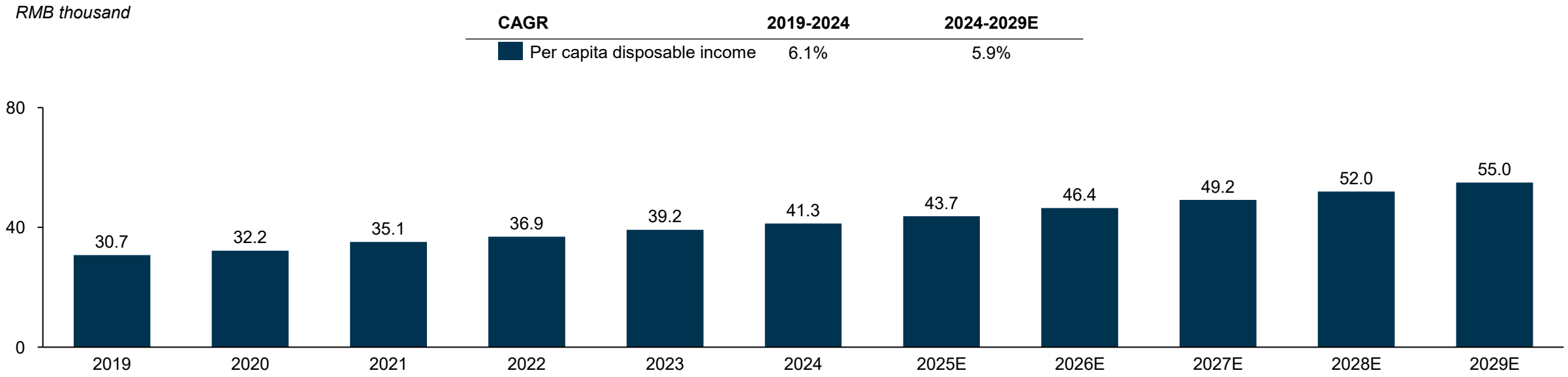
Key Analysis

- China’s economy has undergone significant growth over the past years, with its per capita nominal GDP increasing from RMB70.1 thousand in 2019 to RMB94.8 thousand in 2024. Supported by growing consumption, ongoing urbanization progress, and maturity of economic restructuring, China’s per capita nominal GDP is expected to reach RMB125.2 thousand by 2029.

Source: NBS, IMF, China Insights Consultancy

China’s per capita disposable income has increased from RMB30.7 thousand in 2019 to RMB41.3 thousand in 2024. In the next five years, China’s per capita disposable income is expected to reach RMB55.0 thousand by 2029

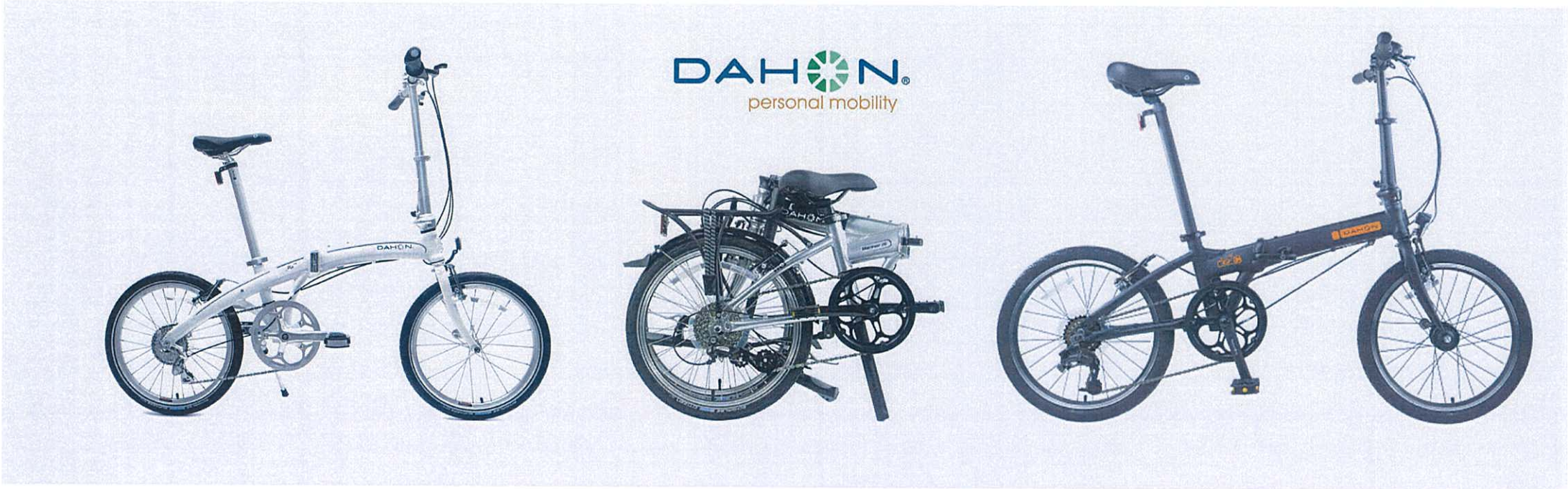
Per capita nominal GDP, China, 2019-2029E



Key Analysis

- China’s per capita disposable income has shown steady growth over the past five years, increasing from RMB30.7 thousand in 2019 to RMB41.3 thousand in 2024, with a compound annual growth rate (CAGR) of 6.8%.This growth is driven by rising household earnings, government policies aimed at improving living standards, and continued economic development. Over the next five years, per capita disposable income is expected to continue growing, reaching RMB55.0 thousand by 2029, supported by ongoing urbanization, economic restructuring, and efforts to boost domestic consumption. The projected CAGR of 5.9% for 2024-2029 reflects a stable economic environment and potential for further income growth, enhancing the spending power of Chinese consumers.

Source: NBS, IMF, China Insights Consultancy



Thank you!

1 Sep 2025