

## China's New Economy Sectors: How Are They Doing?

China's economy is shifting from being primarily focused on investment and manufacturing to a consumption- and services-driven market. In this paper, we use the [S&P New China Sectors Index](#) to analyze China's growing economic sectors and examine their equity, fundamental, and price performance characteristics.

### Contributors

#### Liyu Zeng

Director  
Global Research & Design  
[liyu.zeng@spdji.com](mailto:liyu.zeng@spdji.com)

#### Priscilla Luk

Managing Director  
Global Research & Design  
[priscilla.luk@spdji.com](mailto:priscilla.luk@spdji.com)

#### Sun Yan

Senior Analyst  
Global Research & Design  
[yan.sun@spdji.com](mailto:yan.sun@spdji.com)

### EXECUTIVE SUMMARY

- The main sectors and industries benefiting from China's economic transformation are Consumer Discretionary, Consumer Staples, Communication Services, Health Care, Insurance, and Independent Power and Renewable Electricity Producers.
- As China's structural economic reforms deepen, the demand for benchmarks tracking sector drivers is increasing. The S&P New China Sectors Index is designed to provide equity insight into China's new economy sectors.<sup>1</sup>
- The S&P New China Sectors Index has its largest overweights in Consumer Discretionary, Communication Services, and Consumer Staples, and its largest underweights are in Industrials, Materials, and Financials, compared with the broad Chinese equities market.
- The S&P New China Sectors Index recorded an annualized return of 8.5% between Dec. 31, 2010, and Sept. 30, 2019, outperforming the [S&P China 500](#) by 4.3%, indicating that the new economy sectors performed better than the broad equity market.
- The outperformance of the S&P New China Sectors Index was dominated by sector-allocation effects.
- New economy companies featured higher revenue growth, higher profitability, and lower leverage than the broader equities market, and they tended to be priced with higher valuation and lower dividend yield.

<sup>1</sup> See Exhibit 10 for the definitions of the new economy sectors of the S&P New China Sectors Index.

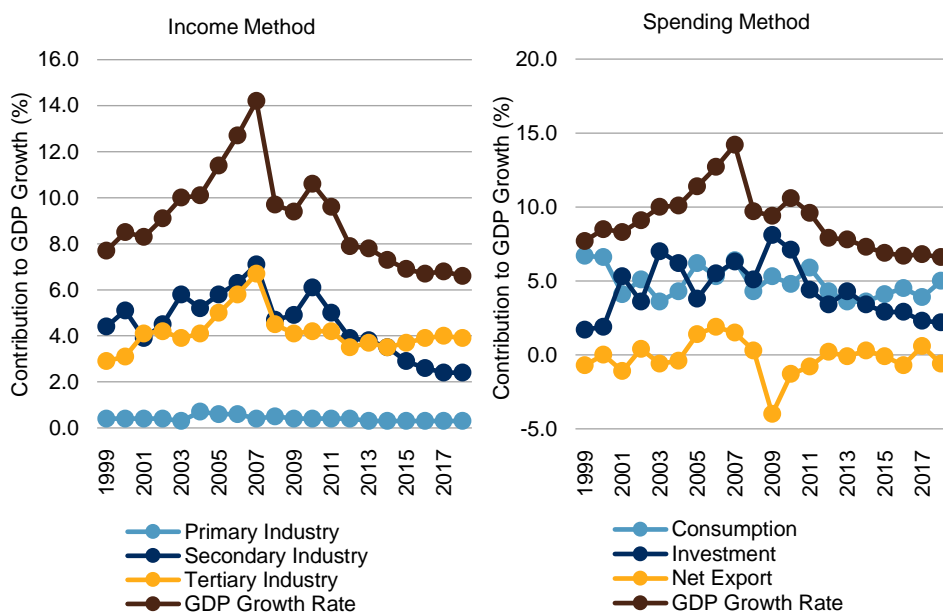
### WHAT IS DRIVING THE NEW ECONOMY?

As the second-largest economy in the world, China generated approximately 18.7% of global GDP in 2018.<sup>2</sup> However, China's economic growth has slowed steadily since the global financial crisis in 2008, despite a temporary boost in 2010 following government stimulus measures.<sup>3</sup> In 2018, China's economy grew at its slowest pace since 1990, at 6.57%, and it is expected to continue to slow down over the next six years.<sup>4</sup>

*China's economic growth has slowed steadily since 2008.*

Industrial production and investment, the two engines of the country's past momentous economic growth, have geared down since 2011 and 2010, respectively (see Exhibit 1).

**Exhibit 1: Contribution to China's GDP Growth**



*China is undergoing structural reforms to support more sustainable economic growth.*

Primary industry: Agriculture (including farming, forestry, animal husbandry, and fishery).  
 Secondary industry: Mining and quarrying, manufacturing, production and supply of electricity, water and gas, and construction.  
 Tertiary industry: The rest of the sectors (including various services for production and consumption)  
 Source: S&P Dow Jones Indices LLC, the National Bureau of Statistics of China. Annual data from 1999 to 2018, based on constant price. Past performance is no guarantee of future results. Charts are provided for illustrative purposes. Consumption includes household consumption and government expenditure.

In response to the economic slowdown, the Chinese government has been carrying out structural reforms and promoting initiatives to support more sustainable economic growth by transforming the country from an investment- and manufacturing-driven economy to a consumption- and services-fueled new economy.

<sup>2</sup> Based on purchasing-power-parity (PPP) share of world total and IMF data.  
<sup>3</sup> National Bureau of Statistics of China.  
<sup>4</sup> Based on 2018 data from the IMF's World Economic Outlook Report, April 2019.

### Supply-Side Structural Reform to Boost Old Economy

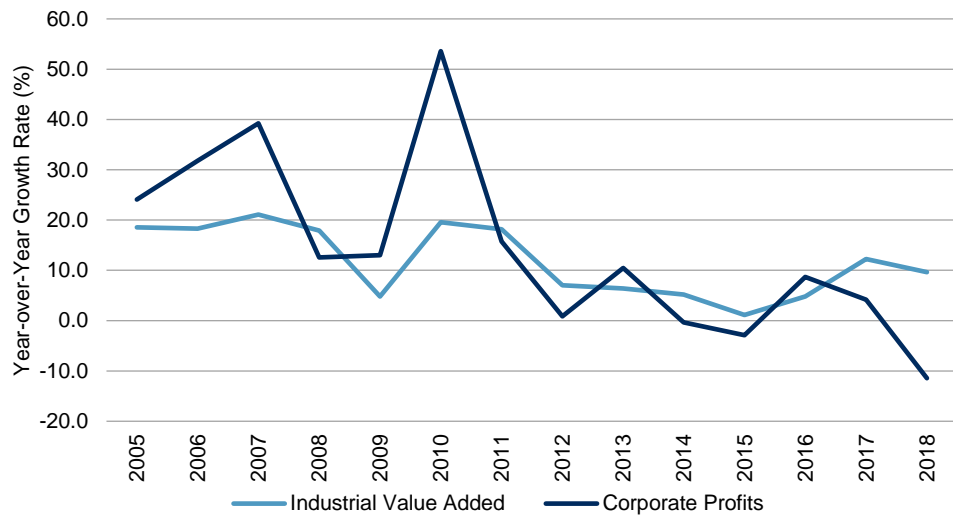
*In February 2016, the Chinese government initiated a supply-side structural reform with five goals...*

With deepening concern surrounding the economic structural imbalances and increasing corporate financial risks due to years of monetary and fiscal stimulus, in February 2016, the Chinese government initiated a supply-side structural reform with five goals: reducing excess industrial capacity, destocking housing inventories, curbing the high level of corporate debt, lowering corporate costs, and correcting other structural shortcomings.<sup>5</sup>

Following the implementation of the restructure measures, China's Industrials sector had a temporary rebound in the growth of the industrial value added and corporate profits in 2016. However, corporate profits resumed their declining pace in 2017 (see Exhibit 2).

**Exhibit 2: Year-over-Year Growth of Industrials Sector Performance**

*...following which, China's Industrials sector had a temporary rebound.*



Source: S&P Dow Jones Indices LLC, the National Bureau of Statistics of China. Corporate profits are calculated based on industrial enterprises above a designated size. Annual data from 2005 to 2018. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

### Searching for New Engines for Growth

*Consumption and services have emerged to be the new engines for sustainable economic growth.*

Benefitting from rising household income and technological advances such as internet and mobile services, which stimulated new ways of spending, consumption and services have emerged to be the new engines for more balanced and sustainable economic growth since 2015 (see Exhibit 1). In 2018, 5.0% and 3.9% out of the 6.6% GDP growth rate was driven by consumption and services, respectively.

However, compared to developed economies, the contributions to GDP from household consumption and services remained low, suggesting ample room for further development in the future (see Exhibit 3).

<sup>5</sup> [China's supply-side structural reforms: Progress and outlook](#), The Economist Intelligence Unit, 2017.

**Exhibit 3: GDP Composition of Major Economies**

COUNTRY	% OF GDP BY INCOME			% OF GDP BY SPENDING			
	AGRICULTURE	INDUSTRIALS	SERVICES	HOUSEHOLD CONSUMPTION	GOVERNMENT EXPENDITURE	INVESTMENT	NET EXPORT
U.S.	0.9	18.2	77.4	68.2	14.1	21.1	-2.9
UK	0.6	18.0	70.5	66.1	18.2	17.2	-1.5
France	1.6	16.9	70.3	53.9	23.4	23.5	-0.8
Germany	0.9	30.5	68.6	52.1	19.9	21.8	6.2
Switzerland	0.7	25.1	71.3	53.3	11.8	22.7	12.2
Japan	1.2	29.1	69.1	55.5	19.7	23.9	0.9
Australia	2.6	24.0	66.6	56.1	18.8	24.1	1.2
China	7.2	40.7	52.2	39.4	14.9	44.8	0.8

Source: S&P Dow Jones Indices LLC, Wind, National Bureau of Statistics of China, and IMF. Composition data are based on 2018 GDP figures except for the U.S. and Japan, whose data are based on 2017 GDP figures. Table is provided for illustrative purposes.

In searching for new growth, and with the recognition of the importance and urgency of developing emerging industries with high value added and growth potential, the Chinese government established a series of guidelines and measures to support the development of identified strategic emerging industries and high-technology services since 2010 (see Exhibit 4).

**Exhibit 4: Major Government Policies to Foster the Development of Strategic Emerging Industries**

DATE	GOVERNMENT POLICY	STRATEGIC EMERGING INDUSTRIES
October 2010	The Decision of the State Council on Accelerating the Fostering and Development of Strategic Emerging Industries <sup>6</sup>	The plan identifies seven "strategic emerging industries" (SEI): (1) Energy efficient and environmental technologies; (2) Next generation information technology; (3) Biotechnology; (4) Advanced equipment manufacture; (5) New energy; (6) New materials; (7) New-energy vehicles. The plan sets a target for SEI industries to account for 8% of the economy by 2015 and 15% by 2020.
December 2011	Guiding Opinions of the General Office of the State Council on Accelerating the Development of High-Tech Service Industry <sup>7</sup>	The plan focuses on accelerating the development of high-tech services in the following eight fields: (1) Research and Development Design; (2) Intellectual Property; (3) Inspection and Testing; (4) Scientific and Technological Achievements Transformation; (5) Information Technology; (6) Digital Content; (7) E-Commerce; (8) Biotechnology.
May 2015	Made in China 2025 <sup>8</sup>	The plan highlights ten priority sectors that require breakthrough development: 1) Next Generation IT; 2) High-End Digital Control Machine Tools and Robots; 3) Aerospace and Aeronautic Equipment; 4) Oceanographic Engineering Equipment and High-Technology Shipping; 5) Advanced Rail Transportation Equipment; 6) Energy Efficient and New Energy Automobiles; 7) Electric Power Equipment; 8) Agricultural Machinery Equipment; 9) New Materials; and 10) Bio-Pharmaceuticals and High-Performance Medical Equipment.
November 2016	13th Five-Year Plan for National Strategic Emerging Industries Development <sup>9</sup>	The plan aims to have the industrial added value of strategic emerging industries account for 15% of China's GDP by 2020. The plan sets the total output targets for the following industries to achieve by 2020: (1) New-Generation Information Technology: to exceed RMB 12 trillion; (2) High-End Equipment Industry & New Materials: to exceed RMB 12 trillion; (3) Biology: to reach RMB 8-10 trillion; (4) New-Energy Automobile, New Energy, Energy-Saving & Environmental Protection: to exceed RMB 10 trillion (5) Digital Creativity: to reach RMB 8 trillion.

Source: S&P Dow Jones Indices LLC, State Council of China. Data as of September 2019. Table is provided for illustrative purposes.

<sup>6</sup> No.32 [2010] of the General Office of the State Council. [http://www.gov.cn/zwqk/2010-10/18/content\\_1724848.html](http://www.gov.cn/zwqk/2010-10/18/content_1724848.html).

<sup>7</sup> No. 58 [2011] of the General Office of the State Council. [http://www.gov.cn/zwqk/2011-12/16/content\\_2021875.html](http://www.gov.cn/zwqk/2011-12/16/content_2021875.html).

<sup>8</sup> No.28 [2015] of the General Office of the State Council. <http://www.cittadellascienza.it/cina/wp-content/uploads/2017/02/loT-ONE-Made-in-China-2025.pdf>.

<sup>9</sup> No.67 [2016] State Council of China, 2016 No.67. [http://www.gov.cn/zhengce/content/2016-12/19/content\\_5150090.html](http://www.gov.cn/zhengce/content/2016-12/19/content_5150090.html).

*The Chinese government will provide funding and tax incentives to encourage venture investment.*

These policies aim to have the industrial added value of strategic emerging industries account for 15% of China's GDP by 2020. In particular, the government identified five strategic emerging segments with a potential market size of over RMB 10 trillion and set up articulated development goals to be achieved by 2020. To this end, the government will provide funding and tax incentives to encourage venture investment, calling for active support for qualified strategic emerging enterprises to obtain direct financing from the capital market.

**Which Industries Benefit from the Policy Shift?**

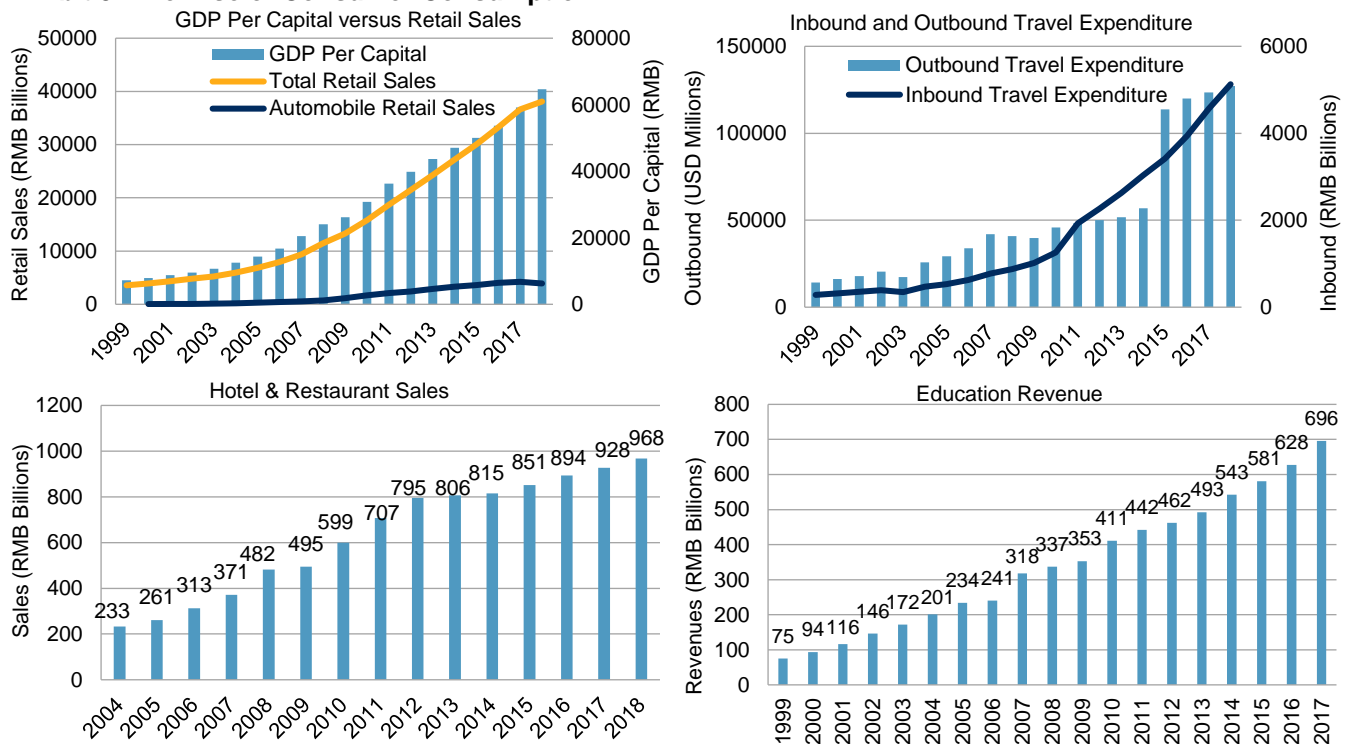
Consumer Discretionary, Consumer Staples, Communication Services, Health Care, Insurance, and Independent Power and Renewable Electricity Producers are the main sectors benefiting from the policy shift.

*Consumer consumption and high-technology services are the two main elements of China's new economy.*

According to the 2018 economic report from the National Bureau of Statistics of China, China's per capita GDP and household disposable income hit RMB 64,644 and RMB 28,288, respectively. Domestic consumption contributed to 54.3% of GDP and 75.8% of GDP growth in 2018. Total retail sales of consumer goods hit RMB 38.1 trillion. Over 28 million cars were sold in China in 2018, with retail sales of RMB 3.9 trillion.

The upgrade of consumption was also reflected in the steady growth trend of travel expenditure, hotel and restaurant sales, and education expenses (see Exhibit 5).

**Exhibit 5: The Rise of Consumer Consumption**

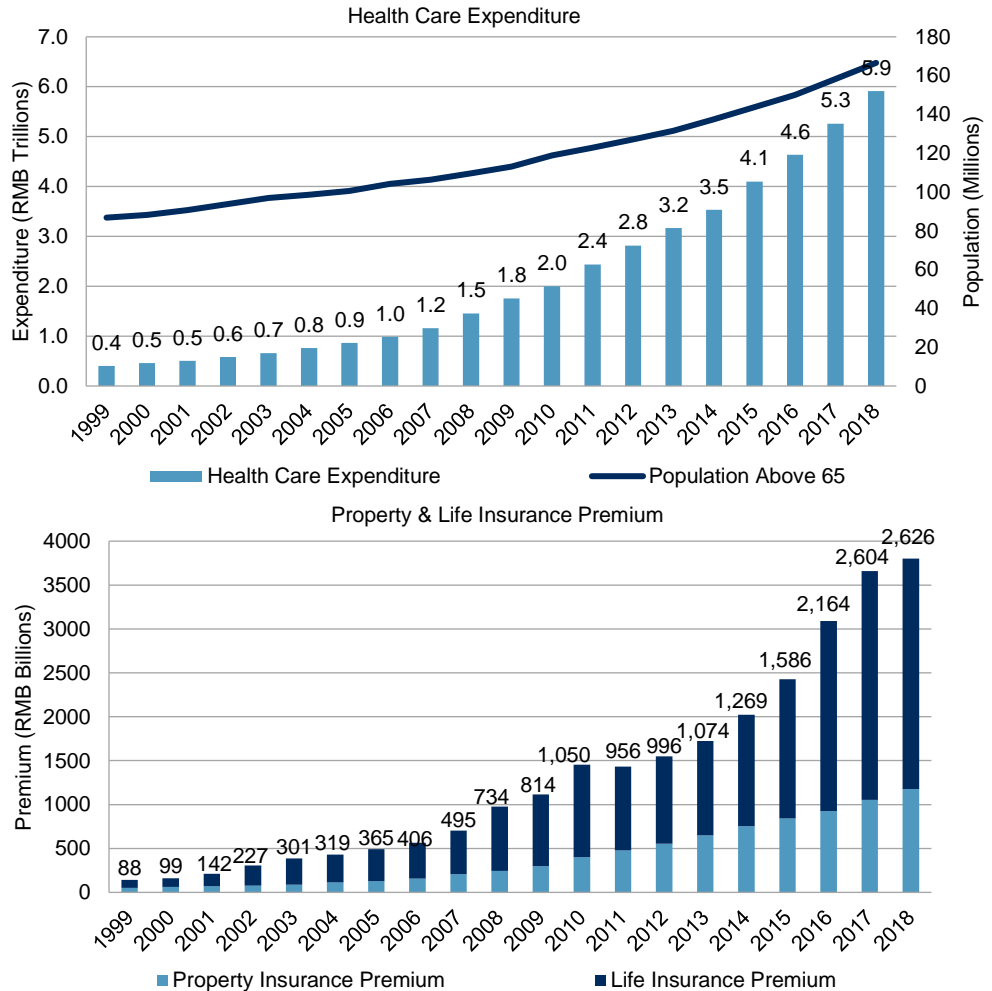


Source: S&P Dow Jones Indices LLC, Wind, and the National Bureau of Statistics of China. Annual data as of 2018. Past performance is no guarantee of future results. Charts are provided for illustrative purposes.

With the aging population, national health care expenditure grew steadily, amounting to RMB 5.9 trillion in 2018, and it is expected to continue to grow. The demand for insurance services, especially life insurance, had a compounded double-digit growth in the past five years (see Exhibit 6).

*With the aging population, Health Care and Insurance will likely continue to grow.*

**Exhibit 6: The Increasing Demand for Health Care and Insurance Services**



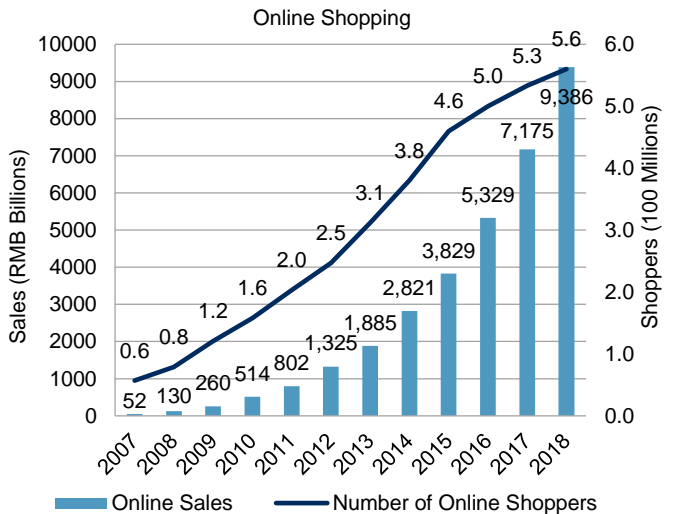
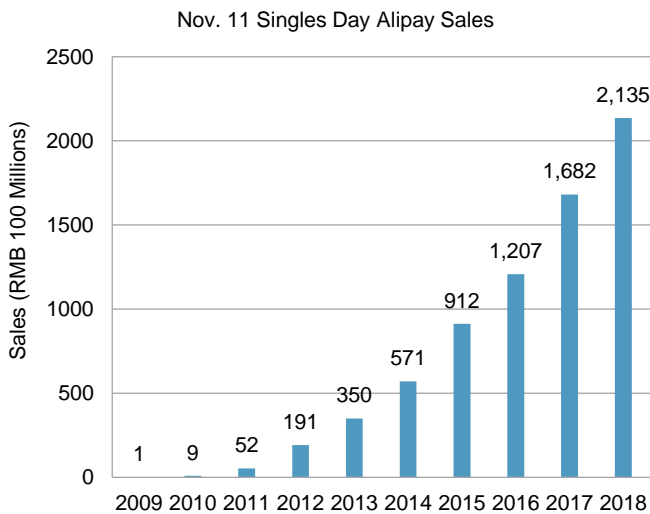
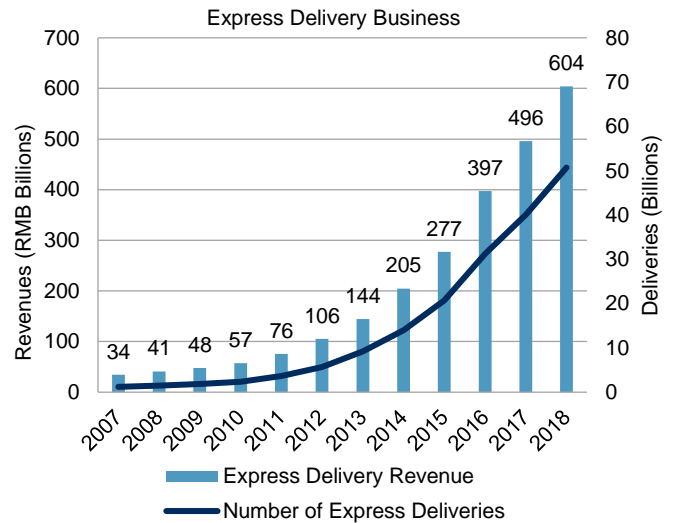
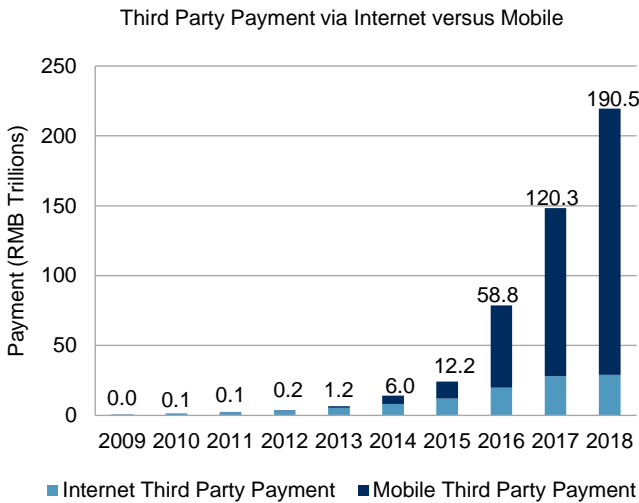
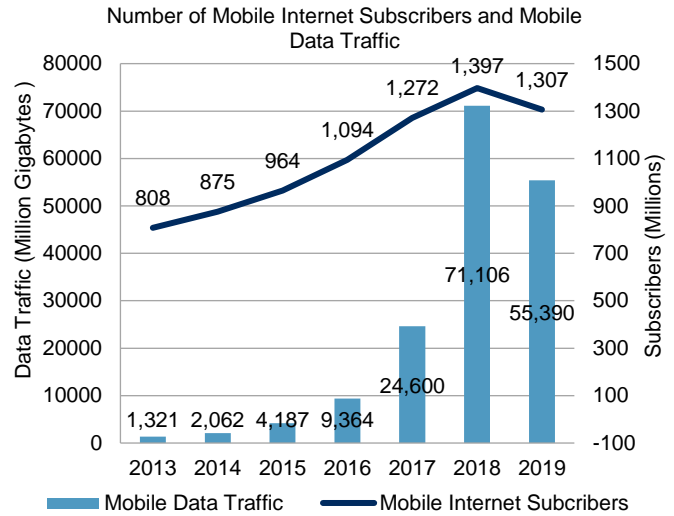
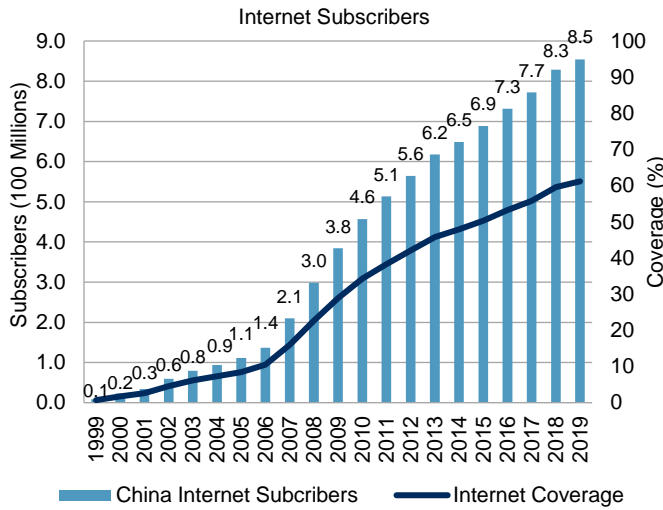
Source: S&P Dow Jones Indices LLC, Wind, and the National Bureau of Statistics of China. Annual data from 1999 to 2018. Past performance is no guarantee of future results. Charts are provided for illustrative purposes.

*The rising household income has stimulated consumer activity in China.*

As a result of the well-established national internet infrastructure, China has surprisingly high coverage for internet usage, at 61.2% as of mid-2019. With 1.3 billion smartphone subscribers and 854.5 million internet users, China has become the leader of e-commerce globally. In 2018, there were approximately 560 million online shoppers in China, which generated retail sales of RMB 9.39 trillion. On Alibaba's November 11 Singles' Day in 2018, sales revenue amounted to RMB 213.5 billion.

Enjoying the spill-over effect, in 2018, the express delivery business achieved revenue worth RMB 603.8 billion, while third-party payment providers generated transaction volume as high as RMB 219.6 trillion (see Exhibit 7).

**Exhibit 7: The Empire of Online Retail Business**

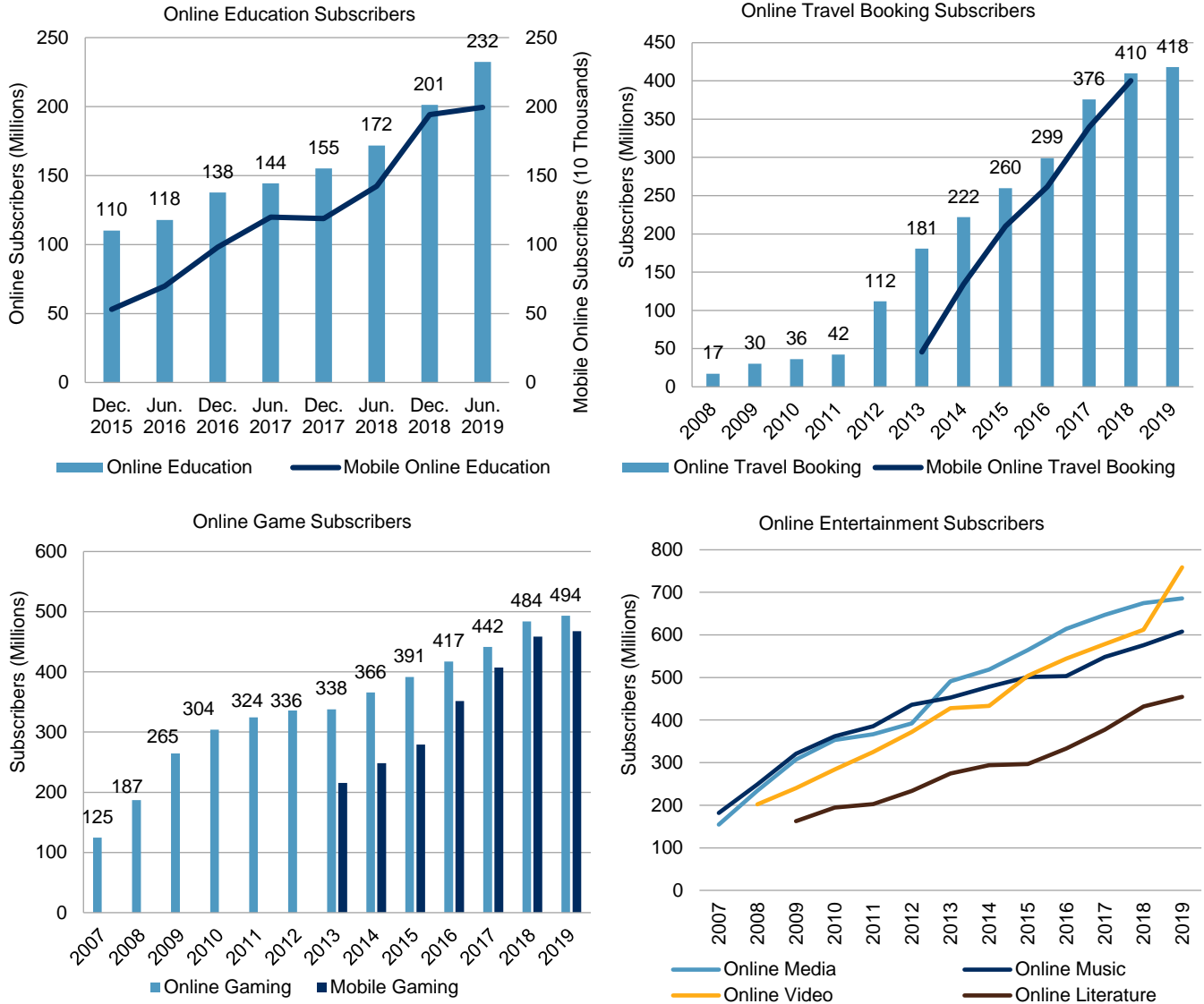


Source: S&P Dow Jones Indices LLC, Wind, National Bureau of Statistics of China, Ministry of Industry and Information Technology, China Internet Network Information Center, and the Chinese Ecommerce Research Center. Data for Internet Subscribers and Number of Mobile Internet Subscribers and Mobile Data Traffic is through June 2019. The rest of the data series are through December 2018. Past performance is no guarantee of future results. Charts are provided for illustrative purposes.



Advances in internet and mobile technology fostered the proliferation of innovative businesses that brought revolutionary changes to people's daily and social life. An online presence in education, travel booking, games and entertainment, delivery services, taxi & premium mobility services, and financial services showed impressive growth and potential for more online services (see Exhibit 8).

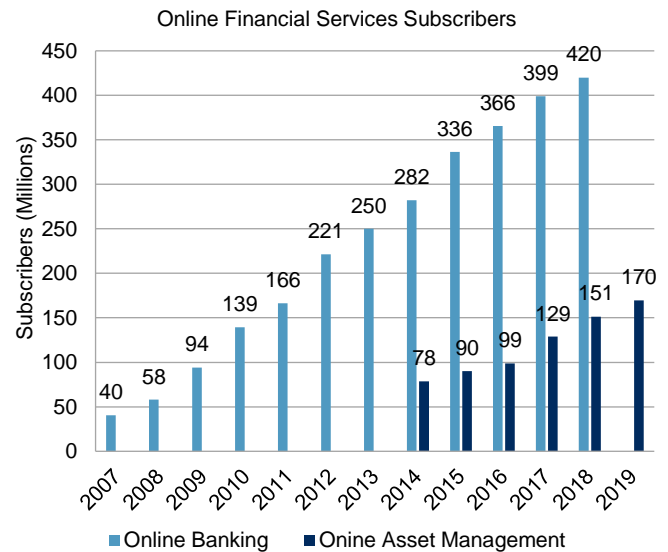
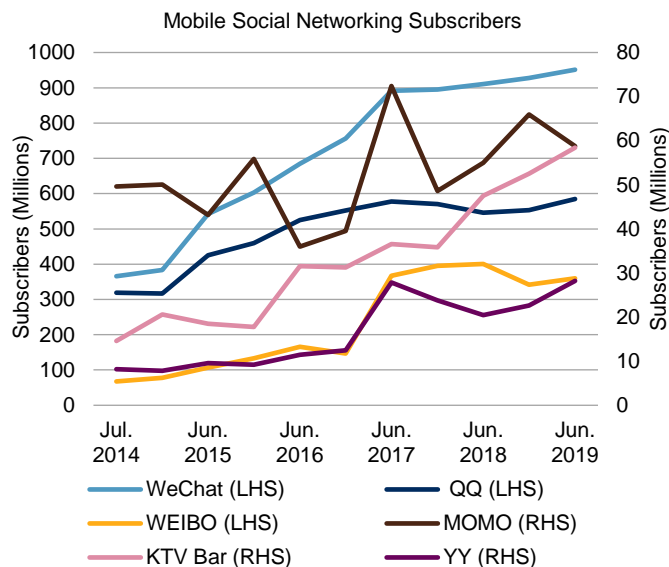
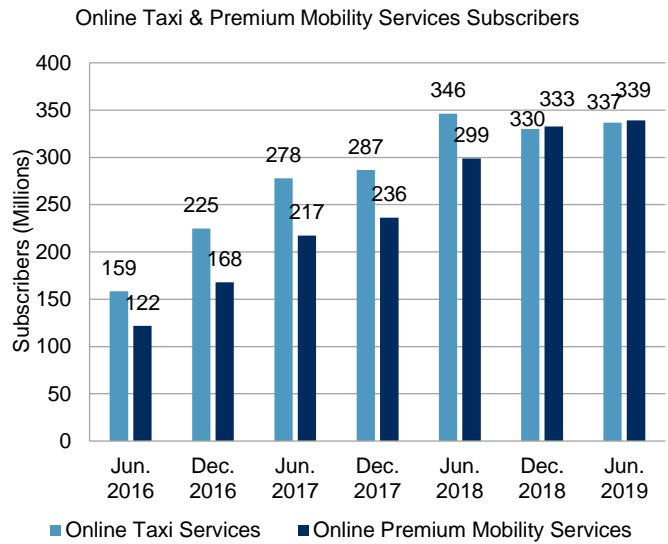
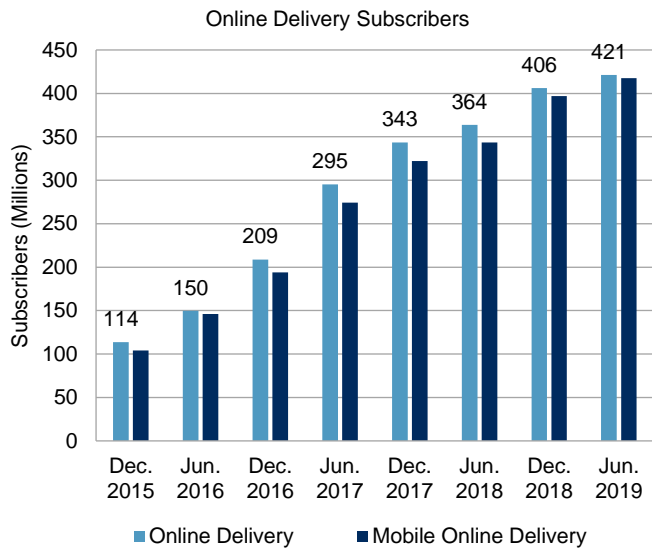
**Exhibit 8: Technology Is Reshaping People's Daily and Social Life**



Source: S&P Dow Jones Indices LLC, Wind, and the China Internet Network Information Center. Data through June 2019. Past performance is no guarantee of future results. Charts are provided for illustrative purposes.



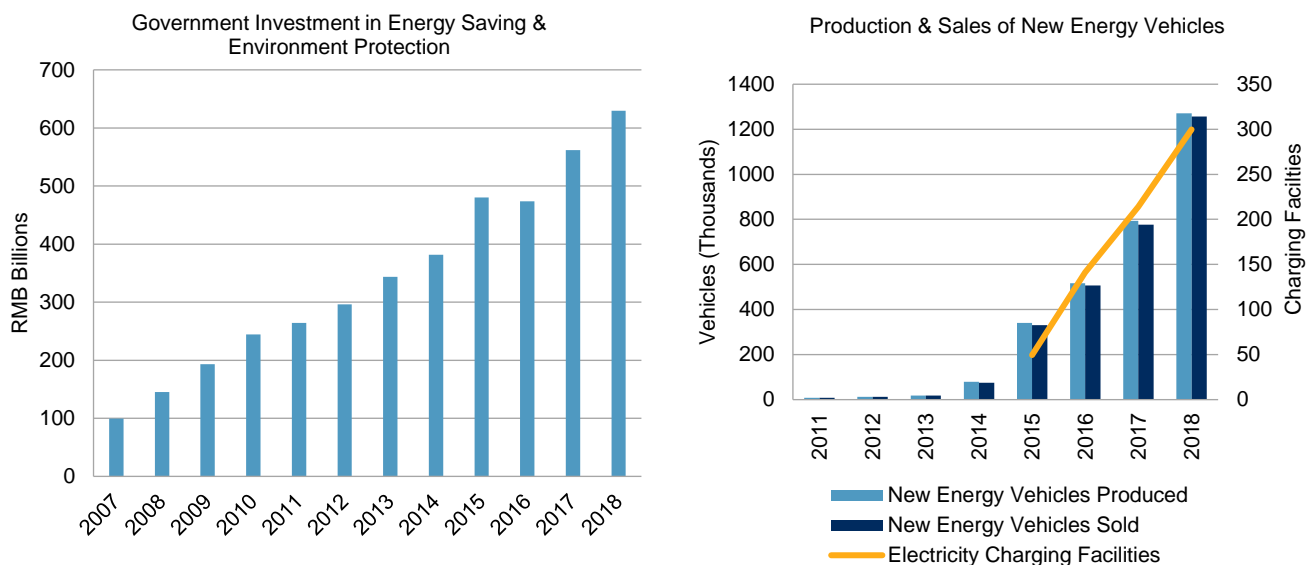
**Exhibit 8: Technology Is Reshaping People's Daily and Social Life (cont.)**



Source: S&P Dow Jones Indices LLC, Wind, and the China Internet Network Information Center. Past performance is no guarantee of future results. Charts are provided for illustrative purposes. Data through June 2019. LHS refers to "left-hand side" and RHS refers to "right-hand side."

Viewed as strategic emerging industries, environmental protection, energy conservation, and new energy technologies have gained strong government support. For example, the production and sales of new energy vehicles have seen significant growth, with double-digit rates over the past four years (see Exhibit 9).

**Exhibit 9: The Development of the New Energy and Environmental Protection Industry**



Source: S&P Dow Jones Indices LLC, Wind, and the National Bureau of Statistics of China. Past performance is no guarantee of future results. Figures of new energy vehicles (NEVs) include only battery electric vehicles (BEVs), plug-in hybrid electric vehicles (PHEVs), and fuel cell electric vehicles (FCEV) that are manufactured in China. Charts are provided for illustrative purposes.

**INDEXING FOR THE CHINA NEW ECONOMY SECTORS**

As China’s economic structural reforms deepen, the demand for benchmarks tracking the sector drivers of China’s new economy has increased. In response to this demand, the S&P New China Sectors Index was launched to provide equity insight into the new economy sectors.

**Index Construction of the S&P New China Sectors Index**

The S&P New China Sectors Index is designed to measure all constituents of the S&P Total China + Hong Kong BMI Domestic<sup>10</sup> that are incorporated in China, Hong Kong, Singapore, and domiciles of convenience<sup>11</sup> and meet certain size, liquidity, and float criteria as of the rebalancing reference date.<sup>12</sup>

Eligible stocks are drawn only from the Global Industry Classification Standard® (GICS®) sectors and industries, as detailed in Exhibit 10.

<sup>10</sup> The S&P Total China + Hong Kong BMI Domestic Index is the combination of the [S&P China A Domestic BMI](#), [S&P China BMI](#), and S&P Hong Kong BMI. It covers China- and Hong Kong-domiciled companies listed globally that meet certain size and liquidity criteria.

<sup>11</sup> Domiciles of convenience include the following: Bermuda, Channel Islands (as in British Channel), Gibraltar, Islands in the Caribbean (Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, British Virgin Islands, Cayman Islands, Curacao, Dominica, the Dominican Republic, Grenada, Haiti, Jamaica, Montserrat, Navassa Island, Puerto Rico, St. Barthlemy, St. Kitts and Nevis, St. Lucia, St. Martin, St. Vincent and Grenadines, Trinidad and Tobago, Turks and Caicos, the Virgin Islands), Isle of Man, Luxembourg, Liberia, and Panama.

<sup>12</sup> Eligible stocks must have a float-adjusted market capitalization of at least USD 2.5 billion, a three-month average daily value traded no less than USD 8 million, and an Investable Weight Factor (IWF) of at least 15%.

**Exhibit 10: Definitions of the New Economy Sectors in the S&P New China Sectors Index**

GICS Level	GICS Code	DESCRIPTION
Sector	25	Consumer Discretionary
Sector	30	Consumer Staples
Sector	35	Health Care
Sector	50	Communication Services
Industry Group	2020	Commercial & Professional Services
Industry Group	4030	Insurance
Industry Group	4510	Software & Services
Industry	551050	Independent Power and Renewable Electricity Producers
Sub-Industry	20301010	Air Freight & Logistics
Sub-Industry	20302010	Airlines
Sub-Industry	20304010	Railroads
Sub-Industry	20305010	Airport Services
Sub-Industry	20305020	Highways & Railtracks
Sub-Industry	45201020	Communications Equipment

Source: S&P Dow Jones Indices LLC. Table is provided for illustrative purposes.

*Only one share class for each company is included in the S&P New China Sectors Index.*

Stocks that pass the index eligibility criteria are added to the index based on their float-adjusted market capitalization in descending order, up to a maximum of 300 constituents. Only one share class for each company is included in the index. If a company in the underlying index has multiple share classes, the priority for inclusion in the S&P New China Sectors Index is: 1) Hong Kong-listed shares, 2) U.S.-listed shares, 3) A-shares, and 4) Singapore-listed shares.

*The index is designed to measure industries that are likely to benefit from China's economic reforms.*

The S&P New China Sectors Index is weighted by float-adjusted market capitalization, subject to a single stock weight cap of 10%, applied at each rebalancing. The index is reconstituted semiannually on the third Friday of June and December each year.

### **What Are the China New Economy Sectors Composed Of?**

The S&P New China Sectors Index is designed to measure sectors and industries that are likely to benefit from China's economic reforms, with a focus on Consumer Discretionary, Consumer Staples, Communication Services, Insurance, and Health Care.

Many of the constituents are domestic or global leaders in their respective industries, such as China Mobile in Wireless Telecommunication Services, AIA Group and Ping An in Insurance, Alibaba, JD.com, Ctrip, and Vipshop in Internet & Direct Marketing Retail, Tencent, Baidu, NetEase in Interactive Media & Services, and MTR Corporation in Road & Rail. The S&P New China Sectors Index also includes consumer producers that offer well-known brands, such as Moutai, Wuliangye, Yili, Mengniu, Want, Gree, ANTA, express delivery provider ZTO Express, education service provider New Oriental, as well as social media providers Momo, WEIBO, and YY

that have brought revolutionary changes to people's daily social life (see Exhibit 11).

*Many of the constituents of the index are domestic or global leaders in their respective industries.*

<b>Exhibit 11: Top Three Companies in Each Industry Group of the S&amp;P New China Sectors Index</b>			
<b>COMPANY NAME</b>	<b>WEIGHT (%)</b>	<b>COMPANY NAME</b>	<b>WEIGHT (%)</b>
<b>Retailing</b>	<b>16.3</b>	<b>Insurance</b>	<b>16.0</b>
Alibaba Group	10.27	AIA Group	8.43
Meituan Dianping	2.86	Ping An Insurance	4.30
JD.com	1.71	China Life Insurance	1.27
<b>Food, Beverage &amp; Tobacco</b>	<b>15.3</b>	<b>Media &amp; Entertainment</b>	<b>14.9</b>
Kweichow Moutai	4.78	Tencent Holdings	9.60
Wuliangye Yibin	2.24	Baidu.com	2.10
Inner Mongolia Yili Ind. Group	1.31	NetEase Inc	1.45
<b>Consumer Durables &amp; Apparel</b>	<b>7.4</b>	<b>Telecommunication Services</b>	<b>6.0</b>
Gree Electric Appliances	2.57	China Mobile	3.38
Midea Group	2.02	China Tower Corp	0.74
Shenzhou Int. Group	0.70	China United Network Communications	0.48
<b>Pharmaceuticals, Biotechnology &amp; Life Sciences</b>	<b>5.8</b>	<b>Consumer Services</b>	<b>5.7</b>
Jiangsu Hengrui Medicine	1.66	Galaxy Entertainment	1.15
CSPC Pharma Group	0.69	New Oriental Education & Technology	0.96
Sino Biopharmaceutical Ltd	0.60	TAL Education Group	0.90
<b>Automobiles &amp; Components</b>	<b>3.1</b>	<b>Utilities</b>	<b>3.0</b>
SAIC Motor Corp	0.80	China Yangtze Power	1.37
Geely Automobile	0.70	SDIC Power Holdings	0.27
Huayu Automotive Systems	0.32	GD Power Development	0.26
<b>Transportation</b>	<b>2.6</b>	<b>Software &amp; Services</b>	<b>1.7</b>
MTR Corp	0.66	Iflytek Co	0.48
ZTO Express	0.58	Hundsun Technologies	0.44
Shanghai Intl Airport	0.45	Yonyou Network Tech	0.42
<b>Health Care Equipment &amp; Services</b>	<b>1.0</b>	<b>Household &amp; Personal Products</b>	<b>0.4</b>
Sinopharm Group	0.28	Hengan International Group	0.35
Alibaba Health Info Tech	0.23	<b>Food &amp; Staples Retailing</b>	<b>0.3</b>
Huadong Medicine	0.20	Yonghui Superstores Co	0.32
<b>Technology Hardware &amp; Equipment</b>	<b>0.3</b>	<b>Commercial &amp; Professional Services</b>	<b>0.2</b>
Hengtong Optic-Electric	0.19	China Everbright Int	0.21
ZTE Corp	0.15		

Source: S&P Dow Jones Indices LLC. Data as of Sept. 30, 2019. Table is provided for illustrative purposes.

## FUNDAMENTAL PERFORMANCE CHARACTERISTICS OF THE NEW ECONOMY SECTORS

### Sector and Share Class Composition

*Consumer Discretionary, Consumer Staples, and Communication Services are the sectors with highest weights in the index.*

The S&P New China Sectors Index has historically held significantly higher weights in the consumer- and services-oriented sectors compared with the broad Chinese equities market, as represented by the S&P China 500<sup>13</sup> (see Exhibits 12 and 13).

At the GICS sector level, the Consumer Discretionary and Consumer Staples sectors, which comprised 17.8% and 7.4% in the S&P China 500, represented 32.5% and 16.0% of the S&P New China Sectors Index, respectively. The Communication Services sector, which had a weight of 20.8% in the S&P New China Sectors Index, was overweight by 9.7% compared with the S&P China 500. Industrials, Materials, and Financials were the most underweighted sectors in the S&P New China Sectors Index.

**Exhibit 12: Sector Breakdown of the S&P New China Sectors Index and S&P China 500**

SECTOR	S&P NEW CHINA SECTORS INDEX (%)	S&P CHINA 500 (%)
Energy	0.0	2.9
Materials	0.0	6.6
Industrials	2.8	10.1
Consumer Discretionary	32.5	17.8
Consumer Staples	16.0	7.4
Health Care	6.8	5.6
Financials	16.0	22.5
Information Technology	2.1	8.1
Communication Services	20.8	11.1
Utilities	3.0	2.7
Real Estate	0.0	5.1

Source: S&P Dow Jones Indices LLC. Data as of Sept. 30, 2019. Table is provided for illustrative purposes.

*The most overweighted industry groups are Insurance, Food, Beverage & Tobacco, Retailing, and Media & Entertainment.*

Looking deeper into the GICS industry group level, the most overweighted industry groups were Insurance, Food, Beverage & Tobacco, Retailing, and Media & Entertainment, which are expected to benefit from an increasing desire for a higher standard of living (see Exhibit 13 and Appendix 1).

<sup>13</sup> The S&P China 500 comprises 500 of the largest, most liquid Chinese companies while approximating the sector composition of the broader Chinese equity market. All Chinese share classes including A-shares and offshore listings are eligible for inclusion.

**Exhibit 13: Industry Group Breakdown of the S&P New China Sectors Index**

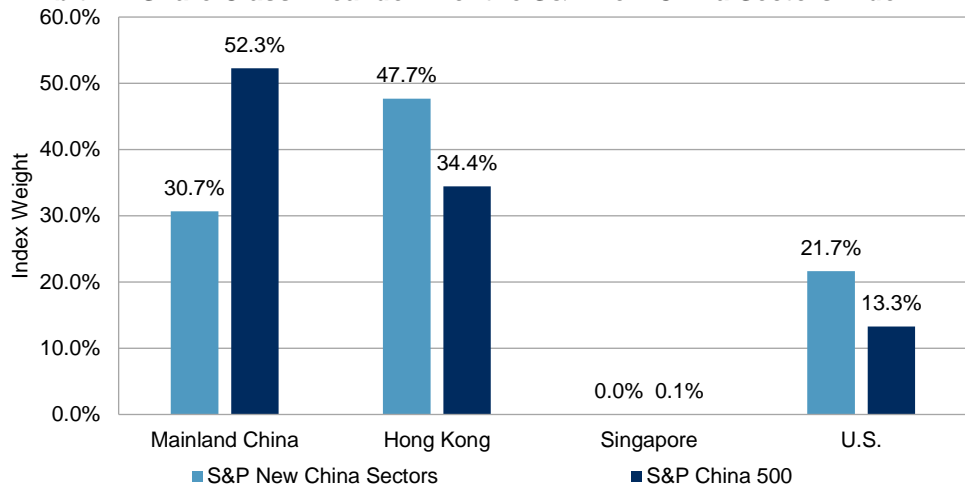
INDUSTRY GROUP	S&P NEW CHINA SECTORS INDEX (%)	S&P CHINA 500 (%)
Energy	0.0	2.9
Materials	0.0	6.6
Capital Goods	0.0	6.9
Commercial & Professional Services	0.2	0.4
Transportation	2.6	2.8
Automobiles & Components	3.1	1.5
Consumer Durables & Apparel	7.4	3.3
Consumer Services	5.7	2.1
Retailing	16.3	10.9
Food & Staples Retailing	0.3	0.2
Food, Beverage & Tobacco	15.3	7.1
Household & Personal Products	0.4	0.2
Health Care Equipment & Services	1.0	0.9
Pharmaceuticals, Biotechnology & Life Sciences	5.8	4.7
Banks	0.0	14.2
Diversified Financials	0.0	0.9
Insurance	16.0	7.3
Software & Services	1.7	1.7
Technology Hardware & Equipment	0.3	5.3
Semiconductors & Semiconductor Equipment	0.0	1.1
Telecommunication Services	6.0	1.5
Media & Entertainment	14.9	9.6
Utilities	3.0	2.7
Real Estate	0.0	5.1

Source: S&P Dow Jones Indices LLC. Data as of Sept. 30, 2019. Table is provided for illustrative purposes.

*The S&P New China Sectors Index has a higher concentration of stocks traded in the Hong Kong market.*

Because Hong Kong-listed shares are given higher preference among companies with multiple share types in the index construction, the S&P New China Sectors Index had higher weighting in Hong Kong-listed stocks than the S&P China 500 (see Exhibit 14 and Appendix 2).

**Exhibit 14: Share Class Breakdown of the S&P New China Sectors Index**



*The S&P New China Sectors Index outperformed the S&P China 500 on both an absolute and a risk-adjusted basis.*

Source: S&P Dow Jones Indices LLC. Data as of Sept.30, 2019. Chart is provided for illustrative purposes.

**Historical Performance**

The new economy sectors performed differently than the broad equities market in China. To examine this discrepancy, we compared the performance of the S&P New China Sector Index and the S&P China 500.

From Dec. 31, 2010, to Sept. 30, 2019, the S&P New China Sectors Index recorded an annualized return of 8.5%, outperforming the S&P China 500 by 4.3% per year, indicating that the new economy sectors performed better than the broad equities market (see Exhibit 15). The S&P New China Sectors Index had a smaller return drawdown than the S&P China 500 and the highest risk-adjusted return over the long term.

*The top 10 contributors accounted for 83.6% of the outperformance of the S&P New China Sectors.*

**Exhibit 15: Risk/Return Profile of the S&P New China Sectors Index**

PERIOD	S&P NEW CHINA SECTORS INDEX	S&P CHINA 500
<b>ANNUALIZED RETURN (%)</b>		
1-Year	3.4	2.2
3-Year	11.1	7.0
5-Year	9.5	7.3
Since Dec. 31, 2010	8.5	4.2
<b>CHARACTERISTIC (SINCE DEC.31, 2010)</b>		
Annualized Volatility (%)	18.0	18.9
Risk-Adjusted Return	0.47	0.22
Maximum Drawdown (%)	-36.9	-43.9

Source: S&P Dow Jones Indices LLC. Index performance is based on total return in USD. Data from Dec. 31, 2010, to Sept. 30, 2019. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.



## Performance Attribution

*Software and services contributed close to 43% of the outperformance of the S&P New China Sectors.*

Over the period from Dec. 31, 2010, to Sept. 30, 2019, the top 10 contributors to the outperformance of the S&P New China Sectors Index were the key players from the Communication Services (Tencent, Baidu, NetEase, China Mobile), Financials (AIA Group), Consumer Discretionary (Sands China, Gree Electric Appliances, Alibaba Group Holding Ltd.), and Consumer Staples (Kweichow Moutai, Inner Mongolia Yili Industrial Group) sectors, accounting for 83.6% of the total index outperformance (see Exhibit 16).

**Exhibit 16: Top 10 Contributors to Outperformance of S&P New China Sectors Index**

CONTRIBUTION TO EXCESS RETURN (%)	AVERAGE WEIGHT (%)	AVERAGE OVERWEIGHT (%)	TOTAL EFFECT
Tencent Holdings Ltd.	8.53	4.08	30.05
AIA Group Limited	7.59	7.59	17.76
Baidu, Inc. Sponsored ADR	6.06	3.76	7.97
Kweichow Moutai Co., Ltd.	2.56	1.55	6.12
Sands China Ltd.	1.59	1.59	5.69
Gree Electric Appliances	1.69	0.96	4.06
NetEase, Inc. Sponsored ADR	1.08	0.64	3.42
Alibaba Group Holding Ltd. Sponsored ADR	4.20	2.02	3.17
Inner Mongolia Yili Industrial Group Co., Ltd.	1.34	0.81	3.08
China Mobile Limited	7.49	4.35	2.28
Total	42.12	N/A	83.60

*The underweight of Banks and the overweight of Retailing had a negative impact on the performance of the S&P New China Sectors Index.*

Source: S&P Dow Jones Indices LLC. Index outperformance is calculated relative to the S&P China 500 based on total return in USD. Data from Dec. 31, 2010, to Sept. 30, 2019. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance. The exclusion of CNOOC Limited and PetroChina Company Limited from the S&P New China Sectors accounted for 2.18% and 2.11%, respectively, of the index outperformance.

The majority of the outperformance of the S&P New China Sectors Index was from sector allocation effects, with overweights in Software & Services, Consumer Services, Telecommunication Services, and Insurance, and underweights in Materials, Capital Goods, and Energy, as compared with the S&P China 500 (see Exhibit 17). On the other hand, the underweight of Banks and the overweight of Retailing had a negative impact on the performance of the S&P New China Sectors Index.

Collectively, the allocation bias (overweight) in the new economy sectors accounted for 38.1% of the outperformance of the S&P New China Sectors Index versus the S&P China 500, while the underweight in the old economy sectors attributed to 32.3%.

Exhibit 17: Attribution Analysis of the S&P New China Sectors Index Relative to the S&P China 500							
ATTRIBUTION ANALYSIS	PORTFOLIO AVERAGE WEIGHT (%)	PORTFOLIO TOTAL RETURN (%)	BENCHMARK AVERAGE WEIGHT (%)	BENCHMARK TOTAL RETURN (%)	SECTOR-ALLOCATION EFFECT (%)	STOCK-SELECTION EFFECT (%)	TOTAL EFFECT (%)
<b>Old Economy Industry Group</b>	-	-	<b>51.8</b>	<b>11.4</b>	<b>32.25</b>	<b>0.00</b>	<b>32.25</b>
Energy	-	-	5.8	-24.1	7.54	0.00	7.54
Materials	-	-	9.0	-40.2	22.84	0.00	22.84
Capital Goods	-	-	10.2	-20.7	15.10	0.00	15.10
Transportation (Old Economy)	-	-	1.3	-40.1	2.71	0.00	2.71
Banks	-	-	19.2	72.8	-13.42	0.00	-13.42
Diversified Financials	-	-	1.3	106.4	-0.98	0.00	-0.98
Technology Hardware & Equipment (Old Economy)	-	-	1.9	4.1	0.60	0.00	0.60
Semiconductors & Semiconductor Equipment	-	-	0.4	-11.1	-0.12	0.00	-0.12
Utilities (Old Economy)	-	-	0.8	175.8	-1.22	0.00	-1.22
Real Estate	-	-	2.3	56.8	-0.31	0.00	-0.31
<b>New Economy Industry Group</b>	<b>100.0</b>	<b>106.5</b>	<b>48.1</b>	<b>96.6</b>	<b>38.09</b>	<b>28.29</b>	<b>66.38</b>
Commercial & Professional Services	0.3	-47.8	0.4	-8.7	-0.42	0.03	-0.40
Transportation (New Economy)	2.7	80.8	2.0	20.6	-1.16	3.41	2.25
Automobiles & Components	4.3	35.8	3.0	28.7	-0.36	-0.01	-0.37
Consumer Durables & Apparel	5.7	172.4	3.1	174.6	3.78	-0.47	3.30
Consumer Services	6.7	176.6	1.2	221.4	9.48	2.34	11.83
Retailing	6.6	-44.9	3.1	-39.3	-7.26	-1.84	-9.10
Food & Staples Retailing	0.7	-60.7	0.5	5.8	-0.64	-0.73	-1.37
Food, Beverage & Tobacco	10.5	216.7	5.2	143.7	1.63	11.31	12.94
Household & Personal Products	1.2	0.7	0.4	-68.6	-5.36	6.62	1.26
Health Care Equipment & Services	1.0	-32.2	1.0	9.6	-0.53	-1.07	-1.60
Pharmaceuticals, Biotechnology & Life Sciences	4.6	83.0	4.1	45.5	-1.16	2.52	1.37
Insurance	16.5	101.4	6.1	104.9	4.52	2.45	6.97
Software & Services	22.1	482.7	10.4	460.6	42.88	1.01	43.89
Technology Hardware & Equipment (New Economy)	0.5	51.3	0.5	24.7	0.81	0.09	0.90
Telecommunication Services	11.1	13.3	3.2	25.5	6.45	-6.08	0.37
Media & Entertainment	2.0	-76.2	1.8	-36.2	-3.13	-1.83	-4.96
Utilities (New Economy)	2.8	0.0	2.0	14.8	-0.18	-0.49	-0.67
<b>Total</b>	<b>100.0</b>	<b>106.5</b>	<b>100.0</b>	<b>47.0</b>	<b>71.11</b>	<b>28.89</b>	<b>100.00</b>

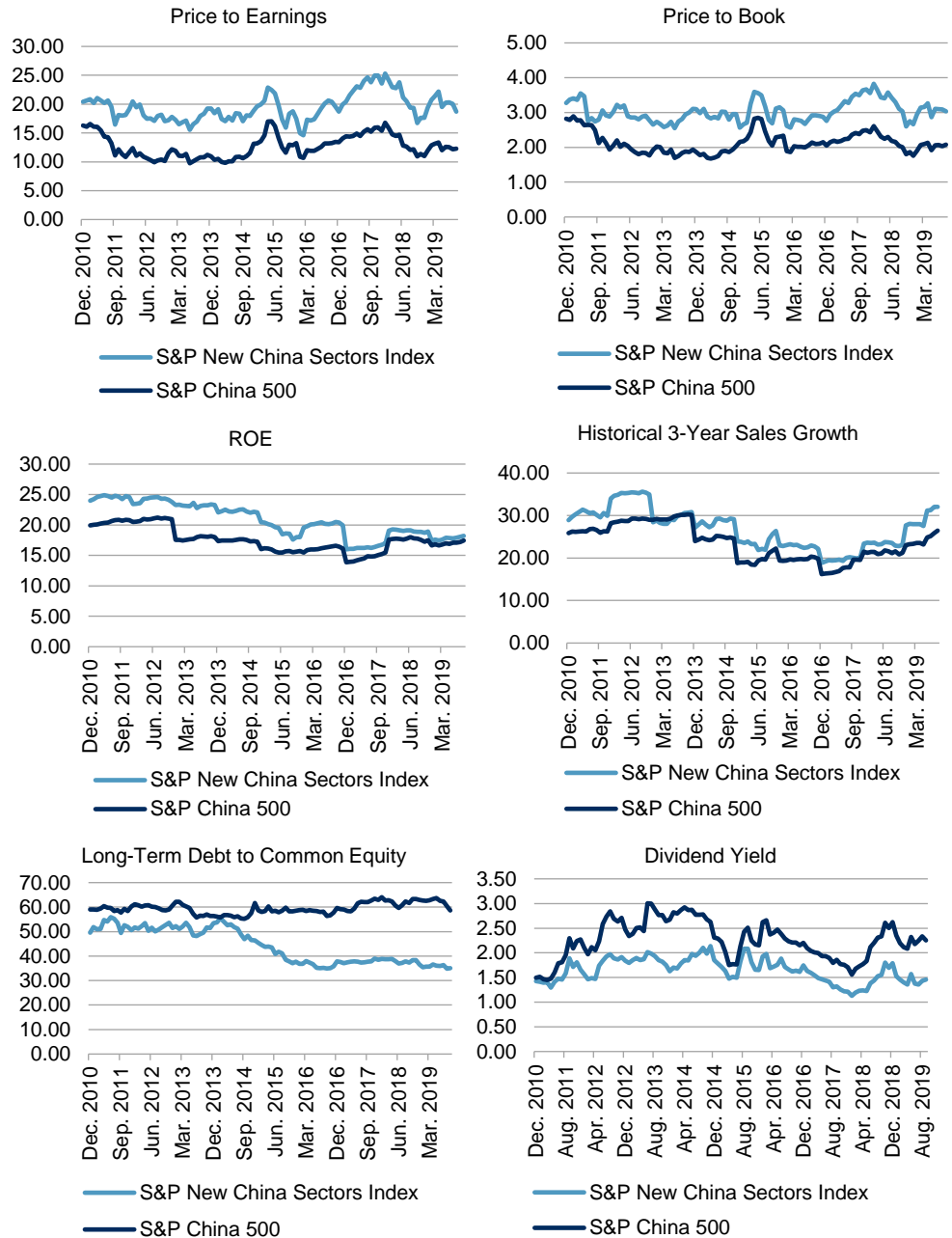
Source: S&P Dow Jones Indices LLC. Index outperformance is calculated relative to the S&P China 500 based on total return in USD. Data from Dec. 31, 2010, to Sept. 30, 2019. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

### Fundamental Characteristics

Companies in the new economy sectors featured higher revenue growth, higher profitability, and lower leverage than the broader equities market, and they tended to be priced with higher valuation (P/E and P/B) and lower dividend yield (see Exhibit 18).

*Companies in the new economy sectors featured higher revenue growth, higher profitability, and lower leverage than the broader market.*

**Exhibit 18: Fundamental Characteristics of The New China Sectors Index versus the Broad Equities Market**



*They also tended to be priced with higher valuation (P/E and P/B) and lower dividend yield.*

Source: S&P Dow Jones Indices LLC, Factset. Monthly data from Dec.31, 2010, to, Sept. 30, 2019. Past performance is no guarantee of future results. Price-to-earnings and price-to-book ratios are weighted harmonic average values. The other fundamental data are weighted average values. Charts are provided for illustrative purposes.

## CONCLUSION

To support more sustainable economic growth, the Chinese government is transforming from an investment- and manufacturing-driven market to a consumption- and services-driven economy. Consumer Discretionary, Consumer Staples, Communication Services, Health Care, Insurance, and Independent Power and Renewable Electricity Producers are the main sectors and industries benefiting from this policy shift.

*As China's economic structural reforms deepen, the demand for benchmarks tracking sector drivers for China's new economy is increasing.*

As China's economic structural reforms deepen, the demand for benchmarks tracking sector drivers for China's new economy is increasing. The S&P New China Sectors Index is designed to provide equity exposure to sectors and industries likely to benefit from China's economic reforms, with a focus especially on Consumer Discretionary, Consumer Staples, Communication Services, Insurance, and Health Care.

The S&P New China Sectors Index had its biggest overweights in the Consumer Discretionary, Communication Services, and Consumer Staples sectors, while the most underweight are the Industrials, Materials, and Financials sectors, as compared with the S&P China 500 index. These sector biases resulted in significant fundamental and performance differences between the S&P China 500 and the S&P New Sectors Index.

From Dec.31, 2010, to Sept. 30, 2019, the S&P New China Sectors Index achieved an annualized return of 8.5%, outperforming the S&P China 500 by 4.3% per year, indicating the new economy sectors performed better than the broad equities market. The S&P New China Sectors Index had a smaller return drawdown than the S&P China 500 and a higher risk-adjusted return over the long term.

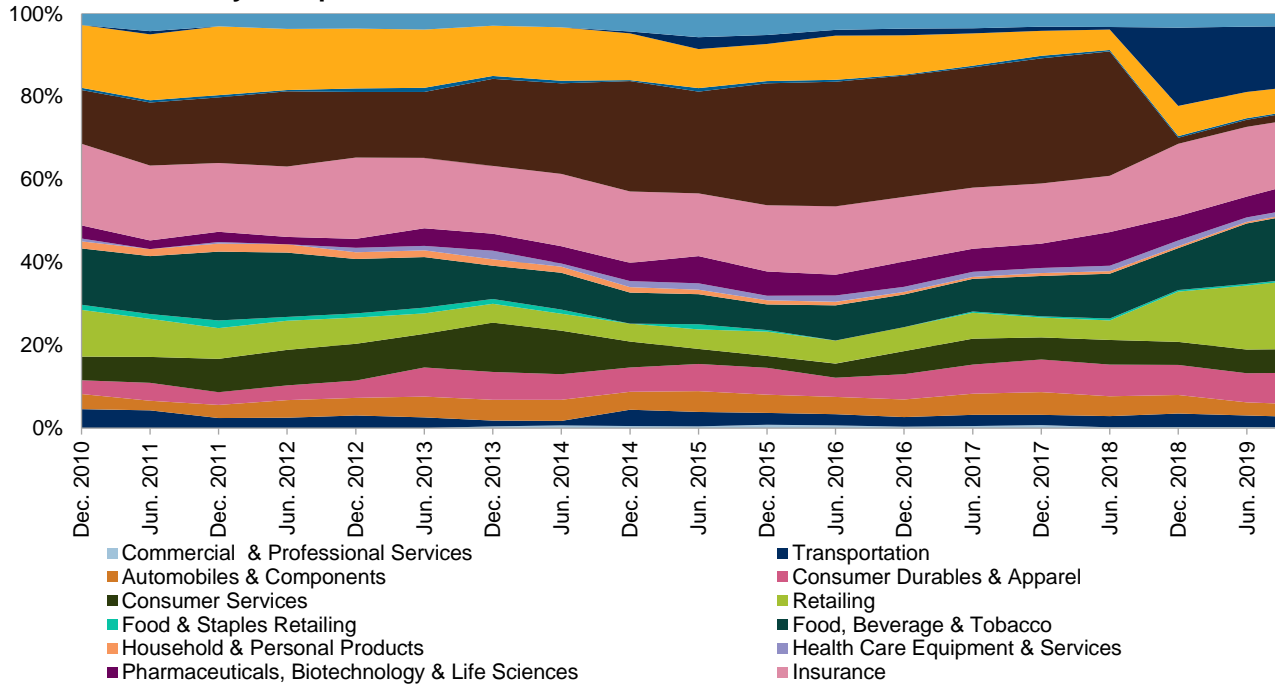
*The S&P New China Sectors Index is designed to focus on industries likely to benefit from those reforms.*

The outperformance of the S&P New China Sectors Index was dominated by sector allocation effects. Collectively, the allocation bias (overweight) in the new economy sectors accounted for 38.1% of outperformance of the S&P New China Sectors Index versus the S&P China 500, while the underweight in the old economy sector stocks contributed 32.3% of it.

Companies in the new economy sectors featured higher revenue growth, higher profitability, and lower leverage than the broader equities market, and they tended to be priced with higher valuation and lower dividend yield.

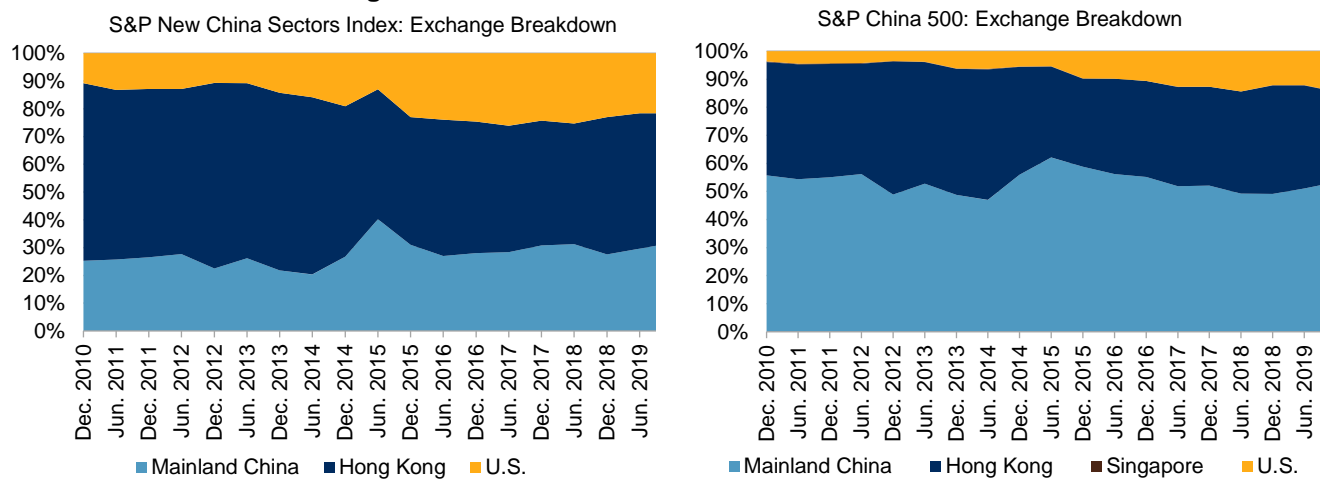
**APPENDIX**

**Exhibit 19: Industry Group Breakdown of the S&P New China Sectors Index**



Source: S&P Dow Jones Indices LLC. Data as of semiannual rebalances from Dec.31, 2010, to Sept. 30, 2019. Chart is provided for illustrative purposes.

**Exhibit 20: Historical Exchange Breakdown of the S&P New China Sectors Index**



Source: S&P Dow Jones Indices LLC. Data as of semiannual rebalances from Dec.31, 2010, to Sept. 30, 2019. Past performance is no guarantee of future results. Charts are provided for illustrative purposes and reflects hypothetical historical performance. Please see performance disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

**Exhibit 21: Annual Returns of the S&P New China Sectors Index**

PERIOD	ANNUAL RETURN (%)	
	S&P NEW CHINA SECTORS INDEX	S&P CHINA 500
2011	-8.5	-20.4
2012	13.5	13.2
2013	25.0	6.4
2014	6.4	25.7
2015	2.6	1.4
2016	-2.8	-8.2
2017	62.7	44.1
2018	-23.1	-23.2
January-September 2019	18.8	15.6

Source: S&P Dow Jones Indices LLC. Index performance is based on total return in USD. Data from Dec. 31, 2010, to Sept. 30, 2019. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

<b>S&amp;P DJI RESEARCH CONTRIBUTORS</b>		
Sunjiv Mainie, CFA, CQF	Global Head	<a href="mailto:sunjiv.mainie@spglobal.com">sunjiv.mainie@spglobal.com</a>
Jake Vukelic	Business Manager	<a href="mailto:jake.vukelic@spglobal.com">jake.vukelic@spglobal.com</a>
<b>GLOBAL RESEARCH &amp; DESIGN</b>		
<b>AMERICAS</b>		
Sunjiv Mainie, CFA, CQF	Americas Head	<a href="mailto:sunjiv.mainie@spglobal.com">sunjiv.mainie@spglobal.com</a>
Laura Assis	Analyst	<a href="mailto:laura.assis@spglobal.com">laura.assis@spglobal.com</a>
Cristopher Anguiano, FRM	Analyst	<a href="mailto:cristopher.anguiano@spglobal.com">cristopher.anguiano@spglobal.com</a>
Phillip Brzenk, CFA	Senior Director	<a href="mailto:phillip.brzenk@spglobal.com">phillip.brzenk@spglobal.com</a>
Smita Chirputkar	Director	<a href="mailto:smita.chirputkar@spglobal.com">smita.chirputkar@spglobal.com</a>
Rachel Du	Senior Analyst	<a href="mailto:rachel.du@spglobal.com">rachel.du@spglobal.com</a>
Bill Hao	Director	<a href="mailto:wenli.hao@spglobal.com">wenli.hao@spglobal.com</a>
Qing Li	Director	<a href="mailto:qing.li@spglobal.com">qing.li@spglobal.com</a>
Berlinda Liu, CFA	Director	<a href="mailto:berlinda.liu@spglobal.com">berlinda.liu@spglobal.com</a>
Lalit Ponnala, PhD	Director	<a href="mailto:lalit.ponnala@spglobal.com">lalit.ponnala@spglobal.com</a>
Maria Sanchez	Associate Director	<a href="mailto:maria.sanchez@spglobal.com">maria.sanchez@spglobal.com</a>
Kunal Sharma	Senior Analyst	<a href="mailto:kunal.sharma@spglobal.com">kunal.sharma@spglobal.com</a>
Hong Xie, CFA	Senior Director	<a href="mailto:hong.xie@spglobal.com">hong.xie@spglobal.com</a>
<b>APAC</b>		
Priscilla Luk	APAC Head	<a href="mailto:priscilla.luk@spglobal.com">priscilla.luk@spglobal.com</a>
Arpit Gupta	Senior Analyst	<a href="mailto:arpit.gupta1@spglobal.com">arpit.gupta1@spglobal.com</a>
Akash Jain	Associate Director	<a href="mailto:akash.jain@spglobal.com">akash.jain@spglobal.com</a>
Anurag Kumar	Senior Analyst	<a href="mailto:anurag.kumar@spglobal.com">anurag.kumar@spglobal.com</a>
Xiaoya Qu	Senior Analyst	<a href="mailto:xiaoya.qu@spglobal.com">xiaoya.qu@spglobal.com</a>
Yan Sun	Senior Analyst	<a href="mailto:yan.sun@spglobal.com">yan.sun@spglobal.com</a>
Tim Wang	Senior Analyst	<a href="mailto:tim.wang@spglobal.com">tim.wang@spglobal.com</a>
Liyu Zeng, CFA	Director	<a href="mailto:liyu.zeng@spglobal.com">liyu.zeng@spglobal.com</a>
<b>EMEA</b>		
Andrew Innes	EMEA Head	<a href="mailto:andrew.innes@spglobal.com">andrew.innes@spglobal.com</a>
Leonardo Cabrer, PhD	Senior Analyst	<a href="mailto:leonardo.cabrer@spglobal.com">leonardo.cabrer@spglobal.com</a>
Andrew Cairns	Senior Analyst	<a href="mailto:andrew.cairns@spglobal.com">andrew.cairns@spglobal.com</a>
Jingwen Shi	Analyst	<a href="mailto:jingwen.shi@spglobal.com">jingwen.shi@spglobal.com</a>
<b>INDEX INVESTMENT STRATEGY</b>		
Craig J. Lazzara, CFA	Global Head	<a href="mailto:craig.lazzara@spglobal.com">craig.lazzara@spglobal.com</a>
Chris Bennett, CFA	Director	<a href="mailto:chris.bennett@spglobal.com">chris.bennett@spglobal.com</a>
Fei Mei Chan	Director	<a href="mailto:feimei.chan@spglobal.com">feimei.chan@spglobal.com</a>
Tim Edwards, PhD	Managing Director	<a href="mailto:tim.edwards@spglobal.com">tim.edwards@spglobal.com</a>
Anu R. Ganti, CFA	Director	<a href="mailto:anu.ganti@spglobal.com">anu.ganti@spglobal.com</a>
Sherifa Issifu	Analyst	<a href="mailto:sherifa.issifu@spglobal.com">sherifa.issifu@spglobal.com</a>



## PERFORMANCE DISCLOSURE

The S&P Total China + Hong Kong BMI Domestic was launched on November 27, 2013. The S&P China 500 was launched on August 28, 2015. The S&P New China Sectors Index was launched on April 13, 2016. All data prior to those dates are back-tested. All information presented prior to an index's Launch Date is hypothetical (back-tested), not actual performance. The back-test calculations are based on the same methodology that was in effect on the index Launch Date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. Complete index methodology details are available at [www.spdji.com](http://www.spdji.com). Past performance of the Index is not an indication of future results. Prospective application of the methodology used to construct the Index may not result in performance commensurate with the back-test returns shown.

S&P Dow Jones Indices defines various dates to assist our clients in providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the Index is set at a fixed value for calculation purposes. The Launch Date designates the date upon which the values of an index are first considered live: index values provided for any date or time period prior to the index's Launch Date are considered back-tested. S&P Dow Jones Indices defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company's public website or its datafeed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed "Date of introduction") is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index's public release date.

The back-test period does not necessarily correspond to the entire available history of the Index. Please refer to the methodology paper for the Index, available at [www.spdji.com](http://www.spdji.com) for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations.

Another limitation of using back-tested information is that the back-tested calculation is generally prepared with the benefit of hindsight. Back-tested information reflects the application of the index methodology and selection of index constituents in hindsight. No hypothetical record can completely account for the impact of financial risk in actual trading. For example, there are numerous factors related to the equities, fixed income, or commodities markets in general which cannot be, and have not been accounted for in the preparation of the index information set forth, all of which can affect actual performance.

The Index returns shown do not represent the results of actual trading of investable assets/securities. S&P Dow Jones Indices LLC maintains the Index and calculates the Index levels and performance shown or discussed, but does not manage actual assets. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the Index or investment funds that are intended to track the performance of the Index. The imposition of these fees and charges would cause actual and back-tested performance of the securities/fund to be lower than the Index performance shown. As a simple example, if an index returned 10% on a US \$100,000 investment for a 12-month period (or US \$10,000) and an actual asset-based fee of 1.5% was imposed at the end of the period on the investment plus accrued interest (or US \$1,650), the net return would be 8.35% (or US \$8,350) for the year. Over a three year period, an annual 1.5% fee taken at year end with an assumed 10% return per year would result in a cumulative gross return of 33.10%, a total fee of US \$5,375, and a cumulative net return of 27.2% (or US \$27,200).

## GENERAL DISCLAIMER

Copyright © 2020 S&P Dow Jones Indices LLC. All rights reserved. STANDARD & POOR'S, S&P, S&P 500, S&P 500 LOW VOLATILITY INDEX, S&P 100, S&P COMPOSITE 1500, S&P MIDCAP 400, S&P SMALLCAP 600, S&P GIVI, GLOBAL TITANS, DIVIDEND ARISTOCRATS, S&P TARGET DATE INDICES, GICS, SPIVA, SPDR and INDEXOLOGY are registered trademarks of Standard & Poor's Financial Services LLC, a division of S&P Global ("S&P"). DOW JONES, DJ, DJIA and DOW JONES INDUSTRIAL AVERAGE are registered trademarks of Dow Jones Trademark Holdings LLC ("Dow Jones"). These trademarks together with others have been licensed to S&P Dow Jones Indices LLC. Redistribution or reproduction in whole or in part are prohibited without written permission of S&P Dow Jones Indices LLC. This document does not constitute an offer of services in jurisdictions where S&P Dow Jones Indices LLC, S&P, Dow Jones or their respective affiliates (collectively "S&P Dow Jones Indices") do not have the necessary licenses. Except for certain custom index calculation services, all information provided by S&P Dow Jones Indices is impersonal and not tailored to the needs of any person, entity or group of persons. S&P Dow Jones Indices receives compensation in connection with licensing its indices to third parties and providing custom calculation services. Past performance of an index is not an indication or guarantee of future results.

It is not possible to invest directly in an index. Exposure to an asset class represented by an index may be available through investable instruments based on that index. S&P Dow Jones Indices does not sponsor, endorse, sell, promote or manage any investment fund or other investment vehicle that is offered by third parties and that seeks to provide an investment return based on the performance of any index. S&P Dow Jones Indices makes no assurance that investment products based on the index will accurately track index performance or provide positive investment returns. S&P Dow Jones Indices LLC is not an investment advisor, and S&P Dow Jones Indices makes no representation regarding the advisability of investing in any such investment fund or other investment vehicle. A decision to invest in any such investment fund or other investment vehicle should not be made in reliance on any of the statements set forth in this document. Prospective investors are advised to make an investment in any such fund or other vehicle only after carefully considering the risks associated with investing in such funds, as detailed in an offering memorandum or similar document that is prepared by or on behalf of the issuer of the investment fund or other investment product or vehicle. S&P Dow Jones Indices LLC is not a tax advisor. A tax advisor should be consulted to evaluate the impact of any tax-exempt securities on portfolios and the tax consequences of making any particular investment decision. Inclusion of a security within an index is not a recommendation by S&P Dow Jones Indices to buy, sell, or hold such security, nor is it considered to be investment advice.

These materials have been prepared solely for informational purposes based upon information generally available to the public and from sources believed to be reliable. No content contained in these materials (including index data, ratings, credit-related analyses and data, research, valuations, model, software or other application or output therefrom) or any part thereof ("Content") may be modified, reverse-engineered, reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of S&P Dow Jones Indices. The Content shall not be used for any unlawful or unauthorized purposes. S&P Dow Jones Indices and its third-party data providers and licensors (collectively "S&P Dow Jones Indices Parties") do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Dow Jones Indices Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content. THE CONTENT IS PROVIDED ON AN "AS IS" BASIS. S&P DOW JONES INDICES PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Dow Jones Indices Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs) in connection with any use of the Content even if advised of the possibility of such damages.

S&P Global keeps certain activities of its various divisions and business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain divisions and business units of S&P Global may have information that is not available to other business units. S&P Global has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

In addition, S&P Dow Jones Indices provides a wide range of services to, or relating to, many organizations, including issuers of securities, investment advisers, broker-dealers, investment banks, other financial institutions and financial intermediaries, and accordingly may receive fees or other economic benefits from those organizations, including organizations whose securities or services they may recommend, rate, include in model portfolios, evaluate or otherwise address.

The Global Industry Classification Standard (GICS®) was developed by and is the exclusive property and a trademark of S&P and MSCI. Neither MSCI, S&P nor any other party involved in making or compiling any GICS classifications makes any express or implied warranties or representations with respect to such standard or classification (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of such standard or classification. Without limiting any of the foregoing, in no event shall MSCI, S&P, any of their affiliates or any third party involved in making or compiling any GICS classifications have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.