

## Huazhang Technology (1673.HK)

### Company Data

Company		Huazhang Technology
Stock Code		1673 HK
# of shares	(m)	600.6
Closing Price	(HK\$/share)	2.16
Mkt cap	(HK\$m)	1,297.4
FY16A EPS	(HK\$)	0.054
FY16A BVPS	(HK\$)	0.534
FY16A DPS	(HK\$)	0.040

### Shareholding structure

Shareholder	# of shares held (m)	% of issued share capital
Florescent Holdings Limited	412.5	68.7%
Public	188.2	31.3%

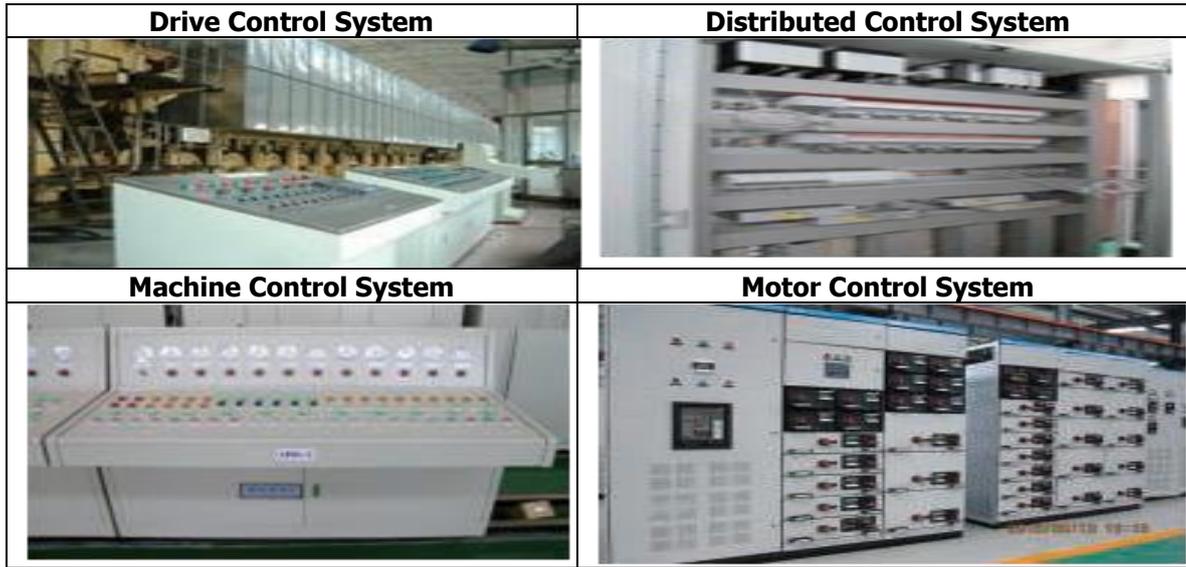
**Note:** Florescent Holdings is 77.9% owned by Lian Shun Limited, which in turn is owned as to 61.31% by Mr Zhu Gen Rong. Besides, Mr Zhu Gen Rong owned another additional 304,000 shares other than that of Florescent Holdings.

- An upstream proxy of recent paper price rally in China.
- Expected strong order flow for the group's papermaking facilities turnkey solutions.
- Demand for the group's waste treatment solutions are expected to increase on stringent pollution control measures imposed by the PRC government.
- With overseas sales office opened in Guangzhou, the group is ready to capitalize export opportunities emerging from the "One Belt, One Road" strategy.
- Proven track record with four-year earnings CAGR at 14.4% between FY12A and FY16A.
- Payout ratio above 30.0%.
- Substantial growth in net profit for FY17F is expected on strong order flow.

**Huazhang Tecjnlology (1673 HK)** was founded in 2001 and listed on the GEM board of HKEx in May 2013. Shares of the group de-listed from GEM board and listed on the main board of HKEx in January 2015. In November 2016, the group gave out bonus issues on the basis of three bonus shares for one existing share. In July 2016, the group raised net proceeds of HK\$116.4m through a top-up placement of 33.0m shares at HK\$3.60 each.

Huazhang is engaged in the research and development, manufacture and sale of industrial automation systems and sludge treatment products. The industrial automation systems provided by the group includes drive control system, distributed control system, machine control system and motor control centre. The systems are designated to improve the efficiency of the production line by controlling the production process. Sludge treatment products consist of the separation of solid from liquid in the handling of industrial waste; the group's sludge treatment products comprise two categories: filter press and steel-belt filter press. Since FY16A, the group set up Project Division for the provision of industrial turnkey solution for the papermaking industry. In addition, the group designs and constructs wastewater treatment facilities and provides related installation services via its 70.0%-owned subsidiary Wukong.

**Industrial Automation Systems**



Sources: Huazhang Technology

**Sludge Treatment Products and Wastewater Treatment System**



Sources: Huazhang Technology

**Outlook positive.** We are very positive to the earnings outlook of the papermaking industrial turnkey solution specialist, Huazhang Technology (1673 HK). Papermakers are increasing capital expenditure due to surging consumption of packaging materials and strong paper price, which translate into orders for papermaking facilities turnkey solutions provided by the group. Furthermore, as a top-tier industrial solution providers in China with reputation and proven export sales record, Huazhang Technology is posted to capitalize emerging opportunities arising from the "One Belt, One Road" strategy proposed by the PRC Government. More stern waste discharge regulations imposed by PRC Governments are expected to provide a boost to the group's waste treatment related sales too. With four-year net earnings CAGR at 14.4% between FY12A and FY16A, the group has proven track record. The group reported a net cash of HK\$96.3m in hand as at the end of June 2016.

**Proxy of recent paper price rally.** In our opinion, Huazhang is the proxy of the recent paper price rally in China. Due to factors such as depreciation in RMB, increase in input costs and regulatory expenses, consolidation in the papermaking industry and increase in consumption of packaging materials on prosperous e-commerce in China, prices for particular paper types, especially those for package materials have been soaring since the beginning of this year.

On the other hand, as a result of the strong paper prices, fundamentals and profitability of papermakers have been improved substantially. For example, net profit of Chenming Paper (1812 HK) for the period between January and September 2016 increased by 176.9% YoY. In return, share price performances of major papermaker have been outperforming the HSI. Share prices of Nine Dragon Papers (2689 HK), Chenming Paper (1812 HK) and Lee & Man Paper (2314 HK) surged 68.0% YoY, 57.8% YoY and 50.2% YoY, respectively, between Dec 14<sup>th</sup> 2015 and Dec 13<sup>th</sup> 2016. Meanwhile, HSI only rose about 5.3% YoY. As a leading industrial automation system and turnkey solutions, as well as waste treatment solutions provider in China, Huazhang Technology (1673 HK) is set to benefit from surge in paper prices too. On the grounds that fundamentals and industrial outlooks improved significantly, papermakers in China are expanding and upgrading their production facilities and are expected to place more orders to Huazhang Technology (1673 HK).

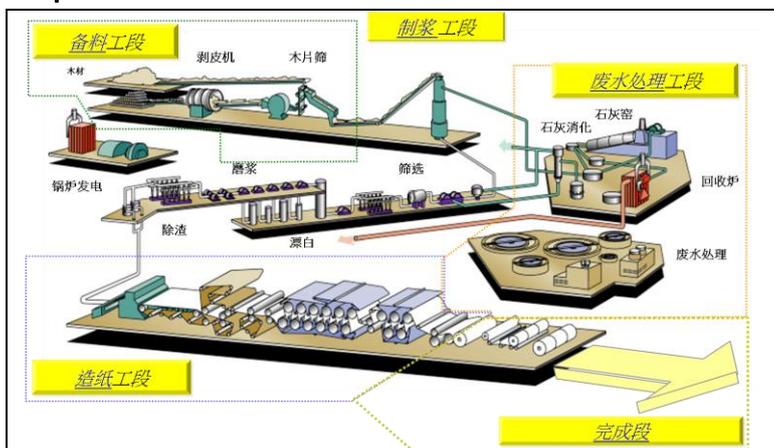
**“Big project” generates more revenue.** Huazhang Technology has been Siemens’ Industrial Solutions Partner in China since November 2013. Additionally, the group has formed working relationship with leasing companies, helping the customers to obtain project financing. With the technological supports from Siemens and aid from third party leasing companies to provide leasing services to customers, the group established Project Division in 2014.

The Project Division is providing comprehensive range of paper production line solutions to customers. Revenue generated from the division increased 22.7% YoY from HK\$147.412m for FY15A to HK\$180.8m for FY16A. Notwithstanding that the gross profit margin of the project division was about 15.0%-20.0%, compared to 25.0% commanded by the group’s conventional industrial automation systems division, revenue from the Project Division accounted for 47.4% of the group’s total revenue for FY16A.

The majority of printing/commercial papermakers are planning to convert their production lines for manufacturing of packaging material/household paper products in view of increase in consumption of packaging materials and household paper products. In addition, due to the increase in transportation costs, more papermakers tend to set up mills adjacent to markets or sources of raw materials. Some papermakers are planning to expand their production capacities, catering for increase in consumption. Nevertheless, only a few papermakers develop the production line by themselves starting from scratch and most of them outsource projects to turnkey solutions provider with profound knowledge of papermaking industry such as Huazhang Technology. In our opinion, orders for the group’s papermaking turnkey solutions would pick up alongside with the rise in capital expenditure of China paper industry.

At this juncture, most of the components for the production lines designed and developed by the group are outsourced. As the group provides more self-develop/produced components to the production lines, GP of Project Division would be enhanced. According to the management, the group is eyeing to acquire papermaking equipment producers with their ample cash in hand.

### Paper Production Line



Sources: Huazhang Technology

**Export opportunities emerging from “One Belt, One Road” strategy.** In our view, the “One Belt, One Road” strategy proposed by the PRC Government is providing fascinating export opportunities for China papermaking and paraphernalia industries.

As the major paper/papermaking equipments manufacturer and exporter in the world, China possesses profound expertise and rich resources for papermaking and paraphernalia industries. Nevertheless, China papermaking industry has been overdeveloped domestically. Many papermakers are making losses and product prices have been suppressed due to oversupply of products and overcapacity.

On the other hand, papermaking industries in many countries that fell into “One Belt, One Road” region are underdeveloped and have great potential. With administrative, diplomatic and financial supports from PRC Government, exploration for opportunities in the “One Belt, One Road” region are more readily and less risky for the Chinese industrial enterprises. As a matter of fact, the Chinese enterprises do not just export papers, but also technologies, equipments as well as human resources to those emerging countries.

As a top-tier papermaking industrial solution providers in China, Huazhang Technology is posted to seize emerging opportunities arising from the “One Belt, One Road” strategy. The group has the intention to open an overseas sales office in Guangzhou and is also considering opening sales offices in India, Iran, Indonesia or Myanmar in order to develop markets there. The group recorded an export sales revenue of HK\$30.6m for FY16A, compared to none for FY15A. Most of the export sales generated during the period were referral businesses. Following the opening of overseas sales office, the group’s export sales is expected to pick up.

**“One Belt One Road”**



Sources: Huazhang Technology

**Benefits from stringent pollution control measures.** Since the promulgation and implementation of “Action Plan for Water Pollution Prevention” and “Execution Proposal for Regulating the Permission for Emission of Pollutant”, industrial enterprises in China have to deploy more resources into pollution discharge control. In general, large papermaker in China invest about 10.0% of their total cost into environmental protection. Thus, sales of the group’s sludge treatment products and waste water treatments solutions are expected to increase on rising environmental protection related capital expenditure by papermakers in China.

## SWOT Analysis

<b>Strength</b>
The group has more than 100 engineers who possess profound knowledge of software application, industrial automation systems in the papermaking industry.
The group occupies leading position in high-end papermaking industrial automation market in China, comparable to ABB.
The group's client portfolio included half of the 30 largest papermakers in China
The group has been Siemens "Industrial Solutions Partner" in China since November 2013; and formed strategic partnership with Rockwell International. The group is the waste water treatment system integrator authorized by Siemens China, Schneider Electric China, Rockwell International, Endress+Hauser, Wonder's Intouch software and Introllution's FIX software.
The group is capable to provide industrial turnkey solution for paper mill.
The group has working relationship with leasing company for provision of financial supports to clients' projects.
The group is capable to provide one-stop shop solution for sludge and waste water treatment.
Wukon, the group's 70.0%-owned waste water treatment solution arm, holds a number of licenses and permits in the construction of wastewater treatment facilities in China, including Safety Product permit issued by Residential, City and Rural area Construction Bureau of Hubei Province, First Class Certificate of Qualification of Safety Construction Enterprise issued by Safety and Preventive Products Association of China, Certificate of Qualification of Construction Enterprise issued by Construction Bureau of Hubei Province and Certificate of Trustworthiness of Water Resources Industry Entity issued by Water Resources Department of Hubei Province.
Wukong has more than 20 years of experience in waste water treatment and had completed more than a hundred waste water treatment plants and facilities in China, including the largest waste water treatment project in China, Beijing Gao Bei Dian Waste Water Treatment Plant and China largest water supply project, Beijing City No.9 Waterworks.
The group's filter press and steel-belt filter press sludge treatment products are self-developed.
The group is setting industrial standard for sludge treatment products.
As of the end of June 2016, the group had HK\$96.3m net cash in hand, allowing her to explore M&A/business opportunities.
The group has registered 119 patents
<b>Weakness</b>
The group still relies on third party suppliers to supply key components for its papermaking production line turnkey solution.
The group relies on papermaking industry.
Reliance on a few key suppliers.
The group's receivable turnover days increased from 102.6 days in FY15A to 182.4 days in FY16A, due to the provision of turnkey solutions to her customers.
Long average replacement cycle due to products' long service life.
<b>Opportunities</b>
Export opportunities emerging from the national strategy "One Belt, One Road"
Increased exposures to industries other than papermaking, such as metallurgy or power industries.
<b>Threat</b>
Competitions from other domestic players and multinational industrial enterprises.
Mismanage of liquidity situation and delay in delivery/installation would adversely affect cash flow position, financial well being and operating results.
Inventory obsolete risks.
Price fluctuation and supply shock of raw materials.
Possible loss on fixed-price contracts due to variation in input costs.

**Proven track record** In our view, Huazhang has proven track record with revenue and net earnings four-year CAGRs between FY12A to FY16A of 14.4% and 15.7%, respectively, despite the stagnant papermaking industry in China during the period. The group's net profit for 1H FY16A ended December 2016 plunged by 69.1% YoY to HK\$6.8m, attributable to the 48.7% drop in revenue from the sales of industrial automation systems and a 3.3 ppts drop in gross profit margin. However, since the group's Project Division started to generate income and provided substantial boost to its revenue for the period, its net profit for 2H FY16A surged two folds, and that for FY16A just only eased by 5.1% YoY. In our view, the group is likely to register a double-digit growth in net profit for FY17F, due to the completion and recognition of contracts on hand, increase in orders for industrial and waste treatment turnkey solutions as well as increase in export sales. As of the end of June 2016, the group's outstanding contract on hand increased 3.7% YoY to HK\$274.7m.

### Track Record

FY ended June 30th		FY12A	FY13A	FY14A	FY15A	FY16A
Revenue	(HK\$m)	229.5	251.4	308.9	381.4	393.8
Gross Profit	(HK\$m)	64.3	71.7	86.2	94.3	97.1
Operating profit	(HK\$m)	24.0	24.5	36.1	38.4	38.8
Net profit	(HK\$m)	19.1	17.7	28.5	34.5	32.7
Non-current assets	(HK\$m)	50.5	49.7	62.6	89.5	93.4
Current assets	(HK\$m)	199.6	244.2	317.8	249.1	508.6
Non-current liabilities	(HK\$m)	0.0	0.8	1.4	0.4	1.3
Current liabilities	(HK\$m)	171.8	116.9	182.5	126.7	277.8
Debt	(HK\$m)	24.6	0.0	22.0	22.0	5.4
Cash	(HK\$m)	45.3	85.9	92.8	48.5	101.7
(Net debt)/cash	(HK\$m)	20.7	85.9	70.8	26.5	96.3
Equity	(HK\$m)	78.3	176.2	196.5	211.9	320.6

Sources: Huazhang Technology

### Financial Ratio

FY ended June 30th	FY12A	FY13A	FY14A	FY15A	FY16A
Gross profit margin	28.0%	28.5%	27.9%	24.7%	24.7%
Net profit margin	8.3%	7.0%	9.2%	9.0%	8.3%
Net debt to equity	26.5%	48.8%	36.0%	12.5%	30.0%
ROE	24.4%	10.0%	14.5%	16.3%	10.2%
ROA	7.6%	6.0%	7.5%	10.2%	5.4%

Sources: Huazhang Technology

**Ample cash for acquisition and dividend payout.** As of the end of June 2016, Huazhang had HK\$96.3m net cash in hand, sufficient for acquisition. The group has been maintaining dividend payout ratio of more than 30.0% since FY12A. For FY16A, the group has not only distributed HK\$0.04 cash per share as dividend to its shareholders, but also gave out bonus issues on the basis of three bonus shares for one existing shares in November 2016. Given the group's rich cash position, a dividend policy of more than 30.0% payout ratio can be expected.

### Payout ratio

	FY12A	FY13A	FY14A	FY15A	FY16A
Payout	66.6%	50.8%	47.7%	40.1%	36.4%

Sources: Huazhang Technology

### **Posted to benefit from more stern pollutant discharges measures on papermakers**

**Integrated sludge treatment product into wastewater treatment system.** The group's 70%-owned Wukong is engaged in design and construction of wastewater treatment facilities and fixtures in China. For the past 20 years, Wukong has completed more than a hundred waste water treatment plants and facilities and possessed a number of licenses and permits in construction of wastewater treatment facilities in China.

Through Wukong, the group vertically integrated its sludge treatment products into the upstream water-treatment business, being able to offer one-stop shop waste treatment solution to customers. Leveraging on Wukong's licenses and technologies in waste water treatment, Huazhang is well posted to capitalize opportunities arising from enforcement of "Action Plan for Water Pollution Prevention" and "Execution Proposal for Regulating the Permission for Emission of Pollutant" promulgated by the State Council in 2015.

**"10 Water Rules" would boost up sludge treatment product sales.** As per the "Action Plan for Water Pollution Prevention" or so-called "10 Water Rules" promulgated by the State Council of the PRC in 2015, by the end of 2016 regulators will prohibit operation of small paper mills which are not comply with national industrial standards. Regulators also requested papermakers in China to adopt elemental chlorine-free technology and other low-pollution pulping technologies by the end of 2017.

Government also encourages heavy water-consuming industries such as metallurgy, textile, papermaking, oil processing, chemical production and leather-making to recycle sewage. According to "10 Water Rules", papermaking mills, smelters, thermal power plants, dyeing plants and chemical plants which do not fully make use of self-produced recycled wastewater would not be able to obtain water supply license.

As per the "Action Plan for Water Pollution Prevention", regulators in PRC strives to improve and optimizes sludge treatment and disposal. Sludge produced by waste water treatment facilities are required to go through stabilization, detoxification and resources-recovering processes. Any illegal sludge dump is strictly prohibited. In addition, regulators require existing sludge treatment facilities to be upgraded by the end of 2017 and set the target of 90.0% sludge detoxification treatment ratio in cities to reach by 2020.

On November 21th 2016, the State Council of the PRC promulgate "Execution Proposal for Regulating the Permission for Emission of Pollutant" (控制污染物排放许可制实施方案), under which, industrial enterprises must obtain permission for pollutant emission before they can discharge waste. The permission explicitly state the permitted pollutant categories, pollutant density, discharged pollutant quantities, destination for disposal, pollutant and waste treatment facilities and related control and handling policies.

In our view, more stringent waste discharge requirement imposed by regulators on industrial enterprises in China, especially on papermakers is highly positive to Huazhang, as it would increase the demand for upgrading and development of waste treatment and discharge system and hence boosting the group's waste discharge related sales.

## Big ticket turnkey package

**Sieman Industrial Solutions Partner.** In November 2013, Huazhang signed a co-operation agreement with the Siemens (China) Co., Ltd and since then has become "Siemens Industrial Solutions Partner" in the ROC. Under the Siemens Solution Partner Program, Siemens merged the products and systems expertise into the solutions and applications provided by relevant partners to customers. Siemens is offering comprehensive product and services covering automation, drive engineering, energy, infrastructure, communication, and Enterprise Resource Planning for papermakers around the world. They have been providing comprehensive products and services to paper industry in China. In 2009, the Siemens Industry Solutions Division supplied all the drives and electrical equipment for paper machine PM2 with annual production capacity of 1.0m metric tons of graphic paper, of Hainan Jinhai Pulp & Paper Industry Co., Ltd. In 2012, Siemens supplied equipments and provided related solutions to Shandong Bohui Paper Industry's board paper mill with annual production capacity of 750,000 tons board paper at Dafeng, Yancheng city, in Jiangsu province, East China.

**One stop shop paper mill solution provider.** Further, Huazhang has been working with finance leasing companies in order to assist customers to obtain project financing. With the technological aid from Siemens and established relationship with finance leasing companies, Huazhang established Project Division in 2014. The division is providing paper mill turn-key solutions to customers for the entire production line design, development and/or modification; and assisting customers to acquire finance lease for upgrading their production facilities. Revenue generated from the group's Project Division increased 22.7% YoY from HK\$147.412m for FY15A to HK\$180.8m For FY16A. Notwithstanding, the gross profit margin for the project division is about 15.0%-20.0%, compared to 20.0%-25.0% commanded by her conventional industrial automation systems, revenue from the division accounted for 47.4% of the group's total revenue for FY16A.

## Opportunities emerging from "One Belt, One Road" strategy

**Huge market to consume excessive output.** In our view, the "One Belt, One Road" strategy proposed by the PRC Government would introduce fascinating opportunity for papermakers in China and papermaking paraphernalia industries. China has been the major player in global paper market. Between 2006 and September 2016, production volume of China paper industry increased at a ten year-CAGR of 2.8%, from about 68.6m tons in 2006 to 90.2m in 2016. Between 2006 and 2015, China paper export increased at a nine year-CAGR of 7.3%, from 3.4m tons to about 6.5m tons. In 2015, sales of pulp and paper production equipment in China reached RMB37.1b. Meanwhile, value of China export of pulp and paper production equipment increased 15.5% YoY to RMB1.2b. As a leading papermaker/paper production equipments manufacturer and exporter in the world, China possesses profound technological know-how, human as well as other resources for papermaking and papermaking paraphernalia industries.

Nevertheless, the industry itself has been overdeveloped domestically and players of the industry have been suffering from overcapacity, keen price competition and soaring environmental protection costs. On the other hand, paper industries in some of the countries fall into "One Belt, One Road" regions are underdeveloped. Under "One Belt, One Road" strategy, China industrial entrepreneurs are encouraged to explored opportunities in emerging countries that fall into "One Belt, One Road" regions, and the PRC government would provide administrative, diplomatic and financial supports to those enterprises. Entrepreneurs in papermaking industry in China can export its technologies, equipments as well as human resources to those countries. By doing so, export income for China papermakers would increase while domestic excessive output would be digested by other emerging markets. This would ultimately mitigate the overcapacity situation in China papermaking industry and improve the operating environment for China papermaking industry.

**Well prepared to explore export opportunity.** In order to seize the emerging opportunities arising from the "One Belt, One Road" strategy, the group will open a foreign affair office in Guangzhou. Going forward, management of the group would open sales offices in India, Iran, Indonesia or Myanmar. The group recorded an export sales of HK\$30.6m for FY16A, compared to none for FY15A. Most of the export sales generated during the period were referral businesses. Following the opening of foreign affair office, the group's export is expected to increase.

## Recent paper price rally

**Paper price rally.** In general, paper price, especially for packaging material such as corrugating medium and cardboard in China has been soaring since the beginning of this year. According to CHINAPAPER.NET's report, prices for corrugating medium in Zhejiang, Henan and Shangdong regions has rose above RMB1,000.0/tons level in the second half of this year. The surge in some paper prices are due to factors such as increase in various input costs, strong paperboard demand for packaging and consolidation in China paper industry.

**Surge in input costs for papermaking.** Since regulators have imposed more stringent measures over papermaker's pollution discharges, paper mills environmental protection related expenses and capex increased accordingly. The depreciation in RMB also boosted up the imported costs for raw material such as pulp and waste paper. It is further estimated that following the implementation of the "New Regulation Regarding Transportation Overloading" in September 2016, transportation costs for paper would increase by RMB200.0-RMB300.0 per tons.

**Consolidation in paper industry.** According to the report released by Ministry of Industry and Information Technology of the PRC in October 2016, more than 70 paper mills and 200 paper production lines with total production annual capacities of 1.67m tons had been phased out and obsolesced. With more small and outdated paper production capacities shut down, the competition between papermakers in China is expected to be more rational, and paper prices would be stabilized.

**Suspension in paper manufacturing.** Due to the G20 Summit in September 2016 and World Internet Conference in November 2016, paper mills in Zhejiang were ordered to suspend production during the events. Following the events, inventory level at paper mills in Zhejiang Province fell to low level, and hence provided support to paper prices.

**Prosperous e-commerce boosts up paper consumption.** Sales at Alibaba's e-commerce platform Taobao and Tmall reached a recorded high of RMB120.7b on November 11<sup>th</sup> 2016 (so-called the "Single Festival"), representing an annualized growth rate of 32.0%. In fact, the booming e-commerce in China has been boosting up the consumption of packaging material. It is estimated that by the end of 2016, number of packages delivered by courier in China would exceed 30.0b units, equivalent to 14.4b units of paper boxes. Consumption of packaging materials such as cardboard and corrugating medium has been increasing alongside with the growth in internet sales in China. In 2015, internet sales in China increased 36.5% YoY. Meanwhile, consumption of cardboard and corrugating medium in China grew by 2.5% YoY and 3.5% YoY, respectively, according to CHINAPAPER. NET. Consumption and prices for packaging materials in 2016 are expected to grow further on an expected 20.2% YoY growth (according to China E-Commerce and Trade Research Centre) in China internet sales.

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