



# Jiutian Chemical Group

## (JIUC SP/JUTN.SI)

### Not Rated

Price as of 3 Apr 2018	0.064
12M target price (S\$)	na
Previous target price (S\$)	na
Upside (%)	na

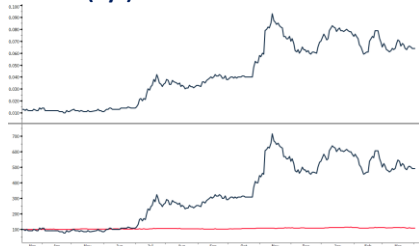
### Trading data

Mkt Cap (S\$m) / (US\$m)	116 / 89
Issued Shares (m)	1,818
Ave Daily Traded (3-Month) Vol / Val	36.1m / \$2.6m
52 week lo / hi	\$0.01 / \$0.10
Free Float	63.7%

### Major Shareholders

Anyang Longyu	27.6%
Sanjeev Gupta	5.9%

### JIUC SP (1yr) VS STI



Source: Bloomberg

## Site visit to chemical plants in Henan, China

### Event

**Site visit to Jiutian's plants.** We visited Jiutian's chemical plants in Anyang, Henan. Jiutian's strategic location in China's coal belt provides the group cost advantages to secure coal-based raw materials used in the manufacture of its chemical products. In addition, we met with senior management from Jiutian's state-owned parents, Anyang Chemical Group (Anhua) and Henan Energy and Chemical Industry Group (HNEC). HNEC was a Fortune 500 company until its restructuring last year to close down or divest non-core assets (e.g. it operated >30 hospitals which it has since divested to the local government).

**Spectacular turnaround in 2017.** Jiutian reported a record quarterly and full-year net profit of Rmb27.8m and Rmb70.1m in 4Q17 and 2017, the highest since its IPO on SGX in 2006. The record profits were due to higher Average Selling Price (ASP) of the group's two main products, dimethylformamide (DMF) and methylamine, both used in the production of leather-based products and feedstock for pharmaceutical and agro-chemical products.

**High utilisation rate amid China's anti-pollution drive.** DMF and methylamine prices in China have increased 33% YoY to 49% YoY in 2017 due to supply-side constraints on the back of environmental compliance reasons. However, Jiutian Chemical has been investing in the long-term in meeting environmental regulations and was able to operate at a high utilisation rate amid the increased scrutiny of its peers.

### Impact

**Full steam ahead with new products.** The group's 74%-owned sodium hydrosulfite (SD) plant commenced commercial production on 31 December 2017 and is scheduled to ramp up production in 2018. The facility will enable the group to produce 140,000 tons of SD, making it the 2<sup>nd</sup> largest manufacturer in China. It will also start commercial production of Oxygen 18 this year.

### Valuation & Action

Based on Jiutian's production plans and ASPs similar to levels in 2017, we estimate 29% YoY earnings growth in 2018F (see page 2 for earnings forecast). That would translate to Rmb91m earnings in 2018F, implying 6.1x 2018F EPS. Its closest SGX-listed peer, China Sunshine (BUY; TP S\$1.39) is trading at 8.3x 2018F EPS. We believe that 10x 2018F earnings - resulting in a fair value of 11 SG cents and 64% upside potential - would be a fair valuation given Jiutian's growth profile, strong backing from one of Henan's largest SOE, and an environmental focus that has helped establish it as a leading chemical producer in its niche markets.

### Risks

Decline in ASP of its two main products, DMF and methylamine, is a key risk to earnings. It also has balance sheet risks: its auditors (Baker Tilly) had flagged out Jiutian's negative working capital position. As at end 2017, its current liabilities exceeded current assets by Rmb112.8mn. On a positive note, the negative working capital amount has improved over the past 5 year. From our discussion with management, they are confident of turning this around within the next 2 years.

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See the last page for important disclosures.

## Company background

**Long operating history.** Jiutian Chemical Group has been listed on the SGX since May 2006. It opened its second DMF/methylamine facility capable of producing 120,000 tons in 2H17, making it the largest producer of such product in China. However, performance of the group was negatively impacted by the downturn in demand caused by the global financial crisis in 2008. In 2011, a subsidiary of Henan Energy and Chemical Industry Group (HNEC), Anyang Chemical Group (Anhua), became a major shareholder by taking a 27.6% stake in the group. Its market capitalisation reached a peak of US\$650mn in 2007 prior to the downturn compared to its current market capitalisation of S\$100mn.

**Major business units.** The group has four subsidiaries and associated companies that operate in Henan province, China.

- **Anyang Jiutian Fine Chemical Co** (100% owned) produces DMF and methylamine. Capable of producing 150,000 tons of DMF and 150,000 tons of methylamine.
- **Henan Herunsheng Isotope Technology** (45% interest) develops isotope technology, and produces and trades Oxygen 18 and deuterium depleted water. Capable of producing 140kg of Oxygen 18 and 1,700 tons of deuterium depleted water. The financial results of Henan Herunsheng are consolidated into Jiutian's financial statements given that Jiutian has control of 80% of the voting rights of this entity.
- **Anyang Jiulong Chemical** (49% interest) manufactures industrial steam and electricity. Capable of producing 2.1mn tons of industrial steam and 396,000 kwh of electricity.
- **Anyang Jiujiu Chemical Technology Co** (74% interest) manufactures sodium hydrosulfite and is the key earnings driver in 2018. Although Jiutian has a 74% interest, management has concluded that the group has no control but only significant influence. Hence, Anyang Jiujiu is classified as an associated company and earnings from this business is reflected as contribution from associates in the P&L. This plant is capable of producing 140,000 tons of sodium hydrosulfite. It also produces key feedstock for the production of sodium hydrosulfite including sulfur dioxide, sodium matabisulfite and sodium formate.

**Two year forecasts.** Based on current DMF and methylamine prices, Jiutian's 2018/2019F earnings can sustain at around rmb91-93mn based on 14% gross profit margins and 25% corporate tax rate. We also assumed that its associated companies are able to breakeven this year. Our full-year estimates are still below the annualised 4Q17 earnings of rmb112mn (4Q17 earnings: rmb28mn).

### Financials & Key Operating Statistics

YE Dec Rmb	2015	2016	2017	2018F	2019F
Revenue	678.0	708.5	1124.4	1349.3	1376.3
PATMI	-8.7	0.6	70.8	91.2	93.1
Core PATMI	-8.7	0.6	70.8	91.2	93.1
Core EPS	-8.7	0.0	3.9	5.0	5.1
Core EPS growth (%)	nm	nm	nm	28.9	2.0
Core P/E (x)	-3.5	953.3	7.9	6.1	6.0
DPS (SGCents)	0.0	0.0	0.0	0.0	0.0
Div Yield (%)	0.0	0.0	0.0	0.0	0.0
Net Margin (%)	-1.3	0.1	6.3	6.8	6.8
Gearing (%)	2.5	18.6	-7.0	-22.7	-30.2
Price / Book (x)	0.1	1.2	1.1	0.9	0.8
ROE (%)	-1.8	0.1	12.8	14.1	12.6

Source: Company Data, KGI Research

### Backed by one of Henan's largest SOE.

HNEC, which indirectly owns 27.6% of Jiutian, is one of Henan's largest SOE. HNEC had total assets of rmb258bn (\$54bn) and 215,000 employees as at end 2016. It was ranked 364th in Fortune's 500 top global companies in 2015. However, HNEC was dropped from the list from 2016 onwards due to the reforms of China's stated-owned enterprises (SOEs) undertaken by the government. HNEC, along with many of China's SOEs, underwent restructuring from 2013 onwards to address their high debt levels. A debt-to-equity swap was arranged last year by its major creditors, resulting in HNEC having a stronger and sustainable balance sheet to pursue growth and compete internationally.

**China's path to sustainable growth could benefit Jiutian.** The Stated-owned Assets Supervision and Administration Commission (SASAC) had consolidated SOEs controlled by the central government to 98 from 117 previously over a five year period. In addition, SASAC closed down as many as 5,000 SOE units in 2016 and involved the reallocation of more than 300,000 workers. The central government has also advanced the "mixed ownership" model, allowing non-state enterprises and foreign investors to take stakes in state-owned firms. It is in this regards that Jiutian may benefit from being HNEC/Anhua's only listed foreign entity, and a potential springboard for both organic and inorganic growth.

**Henan rising.** The province of Henan, where Jiutian operates, is undergoing tremendous changes as it benefits from the inflow of investments following the push by the central government to promote growth westwards. Henan is located strategically next to key coastal provinces such as Hebei, Shandong and Jiangsu.

Henan's industrial development has been based around its mineral resources such as coal and the manufacture and processing of ferrous and non-ferrous metals. With a population of almost 100mn (third largest in China after Guangdong and Shandong), Henan's 9% economic growth in 2017 has been above the national average of 7%. Furthermore, Zhengzhou, the capital city of Henan, is an important railway hub in China and contains one of Asia's largest railway stations. Zhengzhou was named as eighth National Central City in 2017 by the central government.

**Figure 1: Henan province has one of Asia's largest railway stations and network. The province is a key supplier of coal and chemicals in China.**



Source: Britannica Online Encyclopaedia

**Figure 2: Part of Zhengzhou's new central business district taken during our recent trip.**



Source: KGI Research

### Strategic focus and growth drivers in 2018

The group had outlined two key growth drivers in 2018. The first and biggest contributor is the sodium hydrosulfite plant. The second is the production of Oxygen 18 and deuterium-depleted water (DDW) through its 45%-owned subsidiary, Henan Herunsheng Isotope Technology Co.

**Sodium hydrosulfite.** Construction of this plant began back in April 2013 and was originally scheduled to begin production in 2016. However, the group was required to comply with additional environmental compliance regulations issued to the industry. As a result, production of sodium hydrosulfite was delayed until 2017. It began commercial production at the end of 2017 and the group expects to increase production gradually in 2018, with the possibility of being able to reach full production by 2H18 depending on demand and operational efficiency.

Figure 3: Control centre at the sodium hydrosulfite plant



Source: KGI Research

Figure 4: Processing storage tanks at the sodium hydrosulfite plant



Source: KGI Research

Figure 5: The plant is capable of producing key feedstock (left image) for the plant, which is then utilised in the production of sodium hydrosulfite. Sodium hydrosulfite is stored in a warehouse for shipment to customers (right image).



Source: KGI Research

**Oxygen 18 and DDW.** The construction of the main facilities for the manufacturing of these two products have substantially been completed and trial productions are currently ongoing. The group has planned commercial production in 2018 and this business unit may potentially be profitable in 2018.

Figure 6: A PET/CT scanner made by Siemens.



Source: Siemens

Oxygen 18 is utilised as a precursor for the production of fluorodeoxyglucose (FDG) used in positron emission tomography (PET). PET is a nuclear imaging technique used to produce a three-dimensional image of the body to diagnose and determine the severity of diseases, including many types of cancers and heart diseases.

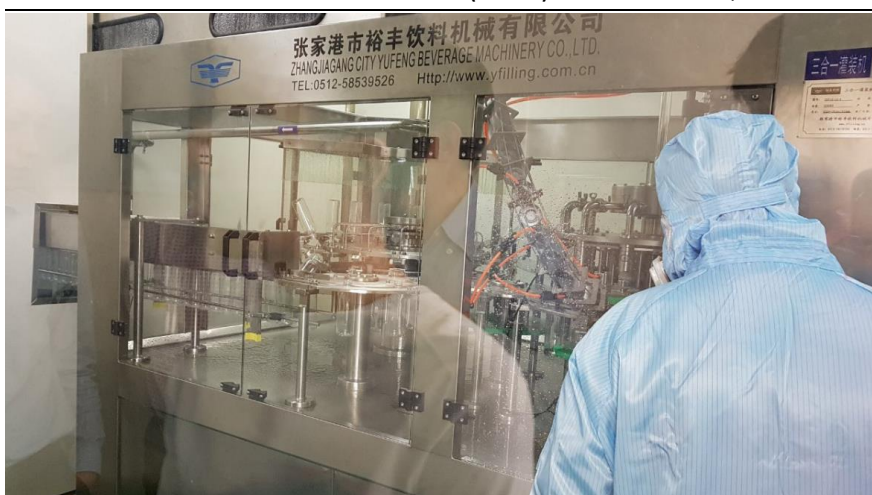
Figure 7: Its 45%-owned subsidiary Henan Herunsheng Isotope Technology produces Oxygen 18, which is used in the radiopharmaceutical industry.



Source: KGI Research

**DDW.** DDW is also known as light water, which has lower concentration of deuterium than occurs naturally. The plant is capable of producing 1,700 tons of DDW and from our understanding, a small bottled water (~300ml) of DDW is able to sell for as much as rmb80 or S\$16. There are several studies, although still not widely accepted, of the health benefits of drinking DDW.

Figure 8: Henan Herunsheng Isotope Technology Co also produces DDW, which is being promoted for its health benefits. A small bottle of DDW water (~300ml) sells for rmb80 or S\$16.



Source: KGI Research

## Financial review

**Improving working capital.** One area that may be a key concern to investors is the negative working capital since 2008. On a positive note, the negative working capital has been improving since 2013, declining to rmb113mn as at end 2017 compared to rmb145mn as at end 2016 and rmb212mb as at end 2013. Furthermore, part of the group's current liabilities are due to its principal supplier and strategic partner, Anhua and to associated company, Anyang Jiulong.

Our discussion with management during the site visit provided us with clarity on this matter. They were confident that the negative working capital will improve over the next two years on the back of better supply-demand dynamics in the industry. From our meetings with senior management from Anhua and HNEC, we also felt assured of the financial support to be given to Jiutian on this matter.

**Figure 9: Working capital position has been improving gradually since 2013**

rmb (mn)	2013	2014	2015	2016	2017
Current assets	593.567	595.430	444.040	549.613	833.615
Current liabilities	805.315	746.212	559.891	694.163	946.453
Working capital	(211.748)	(150.782)	(115.851)	(144.550)	(112.838)

Source: Company data, KGI Research

**Profitability to improve on better industry fundamentals.** Gross margins improved in 2017 to 13.2%, from an average of 4.5% in the prior 5 years, due mainly to higher ASP of DMF and methylamine. The increase in ASP was mainly due to tighter industry supply arising from production stoppages and cuts from other producers. Profits in 2017 would have been almost rmb7mn higher in 2017 if not for the losses from associated companies, Anyang Jiulong and Anyang Jiujiu. On a positive note, both these two associated companies are expected to ramp up production in 2018 and may potentially begin contributing positively to earnings this year. A breakeven level for its associated companies would have added almost 10% to Jiutian's 2017 earnings.

**Figure 10: We estimate a sustainable gross margin of 15% going forward**

RMB (mn)	1Q16	2Q16	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17
Revenue	149.22	164.123	145.18	249.989	270.629	249.078	223.271	371.461
Gross profit	10.902	12.914	8.751	6.868	19.513	51.469	26.034	60.176
PATMI	1.379	4.514	0.541	-5.848	6.231	24.34	12.142	28.104
Margins (%)								
Gross margins	7.3%	7.9%	6.0%	2.7%	7.2%	20.7%	11.7%	16.2%
Net margins	0.9%	2.8%	0.4%	(2.3%)	2.3%	9.8%	5.4%	7.6%

Source: Company data, KGI Research

**Flexible operations to suit market demand.** ASP of DMF in 2017 at rmb5,527 per tonne was 33% higher than 2016. ASP of methylamine in 2017 at rmb7,558 per tonne was 49% higher than 2016. Since methylamine is a key feedstock for the production of DMF, Jiutian has the flexibility to adjust the volumes of each product depending on prices and demand. For example, it produced the maximum volume of methylamine in 2017 as prices were on average 37% higher than DMF.

**Figure 11: Prices of its two key products have improved significantly in 2017. The coal-based chemical industry had been challenging prior to 2017 from a double-whammy of oversupply and weaker-than-expected demand.**

Prices (rmb/tonne)	1Q16	2Q16	3Q16	4Q16	1Q17	2Q17	3Q17
DMF	3,924	3,987	3,926	4,549	5,470	5,589	4,921
Methylamine	5,039	7,974	4,739	5,421	6,659	7,210	7,149

Source: Company data, KGI Research

YE 31 Dec

<b>INCOME STATEMENT Rmb</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018F</b>	<b>2019F</b>
<b>Revenue</b>	<b>678.0</b>	<b>708.5</b>	<b>1,124.4</b>	<b>1,349.3</b>	<b>1,376.3</b>
Cost of sales	(663.9)	(669.1)	(976.3)	(1,160.4)	(1,183.6)
<b>Gross Profit</b>	<b>14.1</b>	<b>39.4</b>	<b>148.1</b>	<b>188.9</b>	<b>192.7</b>
Other operating income/(expenses)	6.0	9.0	1.6	0.0	0.0
Selling and distribution	(12.1)	(16.9)	(19.6)	(27.0)	(27.5)
Admin	(26.5)	(24.6)	(27.6)	(33.7)	(34.4)
<b>Profit from Operations</b>	<b>(18.5)</b>	<b>6.9</b>	<b>102.5</b>	<b>128.2</b>	<b>130.7</b>
Finance income/(expenses)	(2.0)	(5.5)	(5.4)	(6.6)	(6.7)
Share of JV results	11.2	(1.1)	(6.7)	0.0	0.0
Exceptionals/Investment income	0.0	0.0	0.0	0.0	0.0
<b>Profit before Tax</b>	<b>(9.2)</b>	<b>0.3</b>	<b>90.4</b>	<b>121.6</b>	<b>124.0</b>
Income tax	0.8	0.1	(20.3)	(30.4)	(31.0)
Non-controlling interests	(0.3)	0.2	0.7	0.1	0.1
<b>PATMI</b>	<b>(8.7)</b>	<b>0.6</b>	<b>70.8</b>	<b>91.2</b>	<b>93.1</b>
PATMI Normalized	(8.7)	0.6	70.8	91.2	93.1
<b>BALANCE SHEET Rmb</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018F</b>	<b>2019F</b>
Cash and cash equivalents	52.8	29.6	148.7	279.0	357.7
Trade and other receivables	366.0	498.3	648.3	778.0	793.6
Inventory	25.2	21.7	36.6	43.5	44.3
Other current assets	0.0	0.0	0.0	0.0	0.0
<b>Current Assets</b>	<b>444.0</b>	<b>549.6</b>	<b>833.6</b>	<b>1,100.4</b>	<b>1,195.6</b>
Property, plant and equipment	277.0	308.0	305.3	315.3	325.3
Other non-current assets	374.2	372.2	363.1	373.5	384.1
<b>Non-current Assets</b>	<b>651.1</b>	<b>680.2</b>	<b>668.4</b>	<b>688.8</b>	<b>709.5</b>
<b>Total assets</b>	<b>1,095.2</b>	<b>1,229.8</b>	<b>1,502.0</b>	<b>1,789.2</b>	<b>1,905.1</b>
Trade and other payables	544.6	623.9	824.5	980.0	999.7
Borrowings (current)	15.0	70.0	110.0	132.0	134.6
Other current liabilities	0.3	0.3	11.9	30.4	31.0
<b>Current Liabilities</b>	<b>559.9</b>	<b>694.2</b>	<b>946.5</b>	<b>1,142.4</b>	<b>1,165.3</b>
Borrowings (non-current)	50.0	50.0	0.0	0.0	0.0
Other non-current liabilities	0.3	0.3	0.2	0.2	0.2
<b>Non-current liabilities</b>	<b>50.3</b>	<b>50.3</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>
Shareholders equity	457.2	457.8	528.6	619.8	712.9
Non-controlling interests	27.8	27.6	26.8	26.8	26.7
<b>Total Equity</b>	<b>485.0</b>	<b>485.3</b>	<b>555.4</b>	<b>646.6</b>	<b>739.6</b>
<b>Total Liabilities and Equity</b>	<b>1,095.1</b>	<b>1,229.7</b>	<b>1,502.0</b>	<b>1,789.2</b>	<b>1,905.1</b>
<b>CASH FLOW STATEMENT Rmb</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018F</b>	<b>2019F</b>
Net income before tax	(9.2)	0.3	90.4	121.6	124.0
Depreciation & non cash adjustments	(13.4)	64.6	(27.4)	(18.3)	(3.9)
Change in Working Capital	(37.7)	(49.5)	35.8	18.9	3.2
Income Tax Paid	(0.1)	(0.2)	(0.2)	(11.9)	(30.4)
Interest Paid	(2.0)	(5.5)	(5.4)	(6.6)	(6.7)
<b>CF from operating activities</b>	<b>(62.4)</b>	<b>9.6</b>	<b>93.1</b>	<b>103.7</b>	<b>86.1</b>
Purchase/Disposal of PPE	(16.5)	(41.0)	(26.4)	(10.0)	(10.0)
Other CFI	0.0	0.0	0.0	0.0	0.0
<b>CF from investing activities</b>	<b>(19.5)</b>	<b>(60.6)</b>	<b>(28.2)</b>	<b>(10.0)</b>	<b>(10.0)</b>
Dividends Paid	0.0	0.0	0.0	0.0	0.0
Other Cash from Financing	0.0	0.0	0.0	0.0	0.0
<b>CF from financing activities</b>	<b>78.8</b>	<b>36.7</b>	<b>(15.3)</b>	<b>36.5</b>	<b>2.6</b>
Net increase in cash & cash equiv.	(3.1)	(14.3)	49.6	130.2	78.8
FX effects	0.0	0.0	0.0	0.0	0.0
Beginning Cash	31.7	28.5	14.1	63.7	194.0
<b>Ending Cash</b>	<b>28.6</b>	<b>29.7</b>	<b>148.7</b>	<b>279.0</b>	<b>357.7</b>
<b>KEY RATIOS</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018F</b>	<b>2019F</b>
<b>Profitability</b>					
Core EPS	(8.7)	0.0	3.9	5.0	5.1
Core EPS Growth (%)	-	(100.4)	11,984.8	28.9	2.0
DPS (SGD Cents)	-	-	-	-	-
Dividend Yield (%)	-	-	-	-	-
<b>Profitability</b>					
Gross margin	2.1%	5.6%	13.2%	14.0%	14.0%
EBITDA margin	-2.7%	1.0%	9.1%	9.5%	9.5%
Net margin	-1.3%	0.1%	6.3%	6.8%	6.8%
ROE	-1.8%	0.1%	12.8%	14.1%	12.6%
ROA	-0.8%	0.0%	4.7%	5.1%	4.9%
<b>Financial Structure (x)</b>					
Interest coverage	9.5	1.3	19.1	19.4	19.4
Total Debt/Equity	0.1	0.2	0.2	0.2	0.2
Net Gearing	0.0	0.2	-0.1	-0.2	-0.3

Source: Bloomberg, KGI Research

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<b>HOLD</b>	-10% to +10% total return over the next 12 months
<b>SELL</b>	<-10% total return over the next 12 months

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