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99 East Nanjing Road, Shanghai | (8621)23297818
www.swsresearch.com

Utilities | Company In-depth Research

Bringing China to the World

2018 年 2 月 14 日

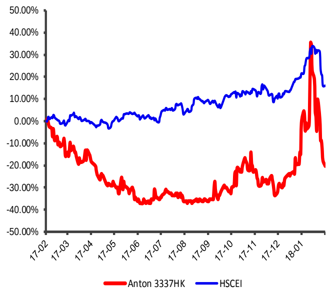
增持

首次覆盖

Market Data: Feb 13, 2018

Closing Price (HK$)	0.92
Price Target (HK$)	1.10
HSCEI	12,005
HSCCI	4,355
52-week High/Low (HK$)	1.66 /0.7
Market Cap (RMB Mn)	1975
Market Cap (HK$ Mn)	2449
Shares Outstanding (Mn)	2660
Exchange Rate (RMB-HK$)	1.24

Price Performance Chart:



Source: Bloomberg

Analyst
Vincent Yu
A0230513070005
BAM599
yuwj@swsresearch.com

周期复苏

Anton Oilfield Service Group (3337:HK)

财务摘要与估值

	2015	2016	2017E	2018E	2019E
Revenue (Rmbm)	1,833	1,618	2,120	2,407	2,738
YoY (%)	-11.50	-11.75	31.08	13.52	13.72
Net income (Rmbm)	(195)	(98)	91	164	189
YoY (%)	-	-	-	81.19	15.18
EPS (Rmb)	-0.09	-0.04	0.03	0.06	0.07
Diluted EPS (Rmb)	-0.09	-0.04	0.03	0.06	0.07
ROE (%)	-9.50	-4.96	4.46	7.56	8.06
Debt/asset (%)	68.31	70.32	70.55	65.73	61.56
Dividend Yield (%)	-	-	-	-	-
PE (x)	-	-	20.66	11.40	9.90
PB (x)	1.48	1.47	1.39	1.29	1.19
EV/Ebitda (x)	7.48	7.74	17.49	13.28	11.72

Note: Diluted EPS is calculated as if all outstanding convertible securities, such as convertible preferred shares, convertible debentures, stock options and warrants, were exercised.

安东油田服务集团是中国民营油田技术服务提供商。与专注于某一阶段油田开发的其它油服企业不同，安东提供从前期钻井到后期增产、覆盖整个油田开发周期的一体化服务。我们观察到，作为安东客户的上游油公司在度过了低油价下的困难时期后，资本开支正逐渐复苏；国内上游非常规油气市场发展迅速，催化在非常规领域极具技术声誉的安东的业绩提升；监管层积极推动上游油气开采市场向更多民企开放，打开了安东未来的成长空间。受这些利好因素驱动，安东未来业绩增长可期，我们预测公司 2017/2018/2019 年的摊销每股收益为人民币 0.03 元/ 0.06 元/ 0.07 元, 基于公司目前股价对应我们最新的目标价港币 1.10 元有 19.6%的上涨空间，我们首次覆盖并给予增持评级。

油价复苏 在14年油价暴跌之后，布伦特原油持续在40美元/桶至50美元/桶这个区间内低位震荡，直至17年底、18年年初迅速反弹，最高于18年1月触及70美元/桶。根据路透社对超过1000名油气行业专家进行的市场调查，布伦特原油价格在18/19/20年的一致预期分别为65/68/70元美金/桶。油价复苏拉动油公司资本开支增加，提振上游油服企业业绩。安东在17年前三个季度完工订单量分别同比增加16.8%/31.0%/70.0%至人民币2.64亿/6.0亿/6.05亿。

战略重心转移 在油价低迷期间安东积极布局海外市场。凭借自身服务价格低的优势，安东抓住了上游油公司资本支出预算收紧的机遇，成功扩大了在高毛利的伊拉克地区的市场份额，不仅使其自身客户群体更加多元化，而且提升了安东在海外的品牌形象。17年上半年海外收入占总收入的63%。我们模型预测未来海外的完工订单量在18/19年每年平均同比增长10%。

国内市场机遇 我们认为未来安东国内收入占比将提高，预计从16年的38.7%提升至19年的42.9%。占比提升背后最主要的驱动力来源于监管层对开放国内上游油气开采市场的积极支持。基于此，我们预计在未来三年内民营油服企业市场占比将从当前的10%提升至20%。虽然中国常规原油储量并不丰富，但非常规油气储量可观，开采潜力大。在此大背景下，凭借自身在非常规领域的技术声誉与优势，我们预计安东在民营油服市场占比将从现在的4%提升至5%。

首次覆盖给予增持 与其竞争对手华油（1251HK）相比，安东的运用财务杠杆更积极，盈利能力也相应更加。同时，基于我们现金流预测，我们预计公司财务状况将极大改善，这与市场主流评级机构在 17 年 12 月上调安东信用评级的判断不谋而合。我们预测公司 2017/2018/2019 年的摊销每股收益为人民币 0.03 元/ 0.06 元/ 0.07 元, 基于公司目前股价对应我们最新的目标价港币 1.10 元有 19.6%的上涨空间，我们首次覆盖并给予增持评级。

We initiate coverage on independent oilfield services provider Anton Oilfield Service Group with an Outperform rating. Compared with peers, which typically focus on one service area in particular, Anton provides services through the whole life-cycle of oilfield development, from drilling to oil production. After a challenging few years with low oil prices, we note rebounding Capex among upstream oil & gas producers, Anton's customers, and we highlight further catalysts for the firm's fundamentals in the form of rising unconventional oil production in the domestic market, in which the firm has a strong technological reputation, and a changing regulatory environment encouraging greater private-sector participation. We forecast EPS of Rmb0.03 in 17E, Rmb0.06 in 18E (+100% YoY) and Rmb0.07 in 19E (+16.7% YoY), and derive a target price of HK$1.10 (14.4x 18E PE).

Recovering oil price. After a collapse in global oil prices in 2014-16A, oil recovered to US$40-50/bbl, before a sharp late-2017/early-2018 rebound, with Brent crude spot price topping US$70/bbl in January. According to a survey conducted by Reuters in January 2018, based on responses from over 1,000 oil & gas professionals, over the coming three years, the broad consensus forecast of oil prices is c.US$65/bbl in 18F, US$68/bbl in 19F and US$70/bbl in 20F. The recovery was followed by an uptick in upstream Capex, allowing Anton to book growth in completed orders in 2017 (+16.8% YoY to Rmb264m in 1Q17A, +31% YoY to Rmb600m in 2Q17A and +70% YoY to Rmb605m in 3Q17A).

Business focus shift. Anton shifted its business focus to the overseas market during the industry downturn since 2014. Given the lower service prices provided by Chinese operators, Anton seized the opportunity to enlarge its market share in Iraq, diversifying its client base and improving its brand image. The percentage of its overseas business increased to 63% in 1H17A. In our modelling, we assume completed overseas order flow for the company will grow 10% YoY each year in 2018-19E.

Domestic driver. We see domestic orders increasing in importance for the firm, rising from a 38.7% contribution in 16A to a 42.9% contribution by 19E. We see regulatory efforts to introduce more market elements into oilfield management as a key factor in Anton's domestic market prospects, and project the private sector to rise from 10% of the market at present to 20% in the next three years. Although China's oil reserves are limited, the country boasts significant unconventional gas reserves and we forecast Anton's market share of the private sector market will rise from 4% to 5% on the back of its technological advantages in unconventional oil exploitation.

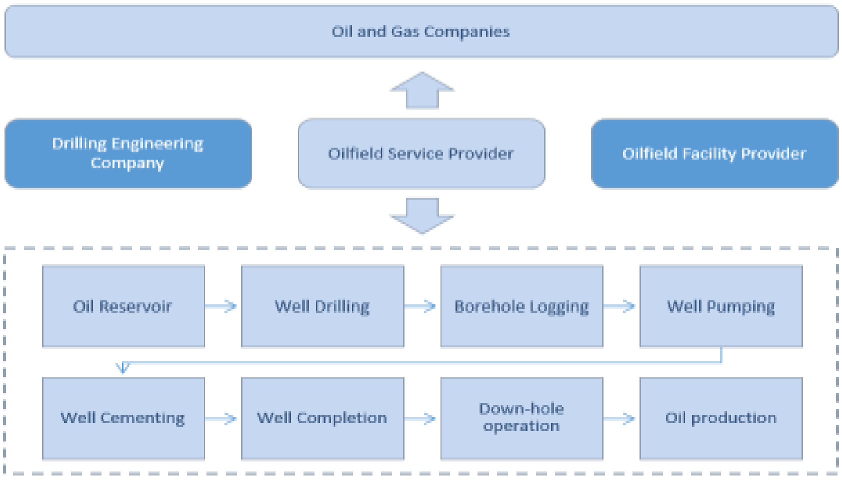
Initiate with an Outperform. While in comparison with SPT Energy (1251:HK – O-PF), Anton uses debt more aggressively, it records stronger profitability and significantly better ROE than its rival. Meanwhile, based on our forecasts of strong improvement in cash flow we see the firm's financial condition as looking up, a fact reflected by credit upgrades from major ratings agencies in December 2017. We forecast EPS of Rmb0.03in 17E, Rmb0.06 in 18E (+100% YoY) and Rmb0.07 in 19E (+16.7% YoY), and derive a target price of HK$1.10 (14.4x 18E PE). With 19.6% upside, we initiate coverage with an Outperform rating.

Company Overview

Founded in 2002 and headquartered in Beijing, Anton is an independent integrated oilfield service provider. The company recorded revenue of Rmb1.6bn in 16A (-11.7% YoY) and a net loss for the year of Rmb98m, as global upstream oil & gas producer capital expenditure dried up, declining a further 15% YoY in 16A after falling 23% YoY in 15A, in response to low oil prices. However, as oil prices rebounded in late-2016, upstream Capex began to tick up again, and the company's overall fundamentals improved with double-digit YoY growth in revenue and positive net profit in 1H17A. As oil prices continue to rally, we expect a stronger performance in 18E.

Anton's business is mainly divided into three segments: drilling technology; well completion; and oil production. Compared to its competitors, which are highly specialised, Anton provides various services through the whole life-cycle of oilfield development, increasing its operating flexibility. The company's integrated oilfield services have a higher gross margin (>40%) than available if offered as separate services (25-35%).

Fig 1: Entire process of oilfield service

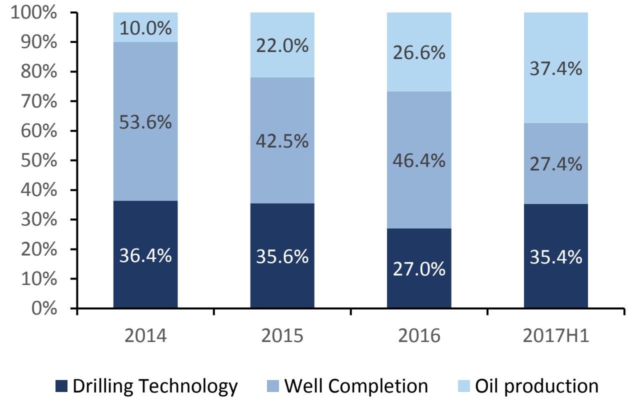


Source: Company data, SWS Research

In response to the industry downturn starting from 2014, Anton adjusted its business strategy, shifting focus towards oil production, ensuring stable cash flow despite a sharp contraction in upstream demand for drilling. The company's oil production business accounted for 37.4% of the firm's 1H17A revenue, vs just 10% in 14A. Although drilling and well completion businesses, which typically carry higher gross margin, will recover along with rising upstream Capex, company management prioritises strong operating cash flow over profitability.

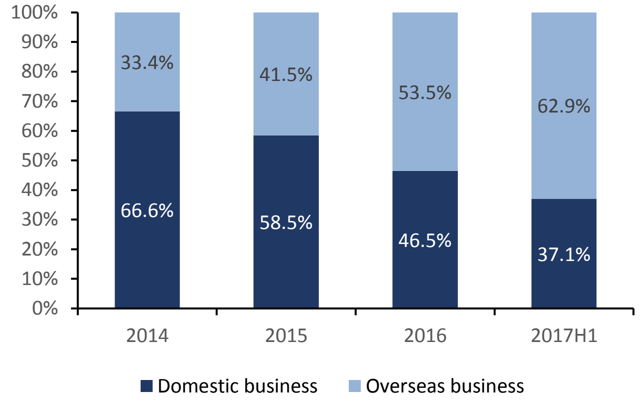
The company expanded market share, particularly in the Middle East market, during the oil price downturn, by offering quality services at low prices to meet increasingly cost-conscious demand. As a result, the firm's overseas business contribution to total revenue rose from 33.4% in 14A to 62.9% in 1H17A, with Anton's business in Iraq alone accounting for 35%-plus. As a result, the company enlarged its client-base and established a strong local presence with stable order inflow from tier-2 international oil and gas companies such as LukOil (LUK:GR) and Eni (ENI:IM). The company's revenue derived from Chinese national oil companies (NOCs) declined from 66% of overall revenue in 16A to c.40% in 17E. The diversified client structure will enable the company to improve its project management, focusing more on projects offering better returns and cash flow in future.

Fig 2: Revenue breakdown by business line



Source: Company data, SWS Research

Fig 3: Revenue breakdown by region

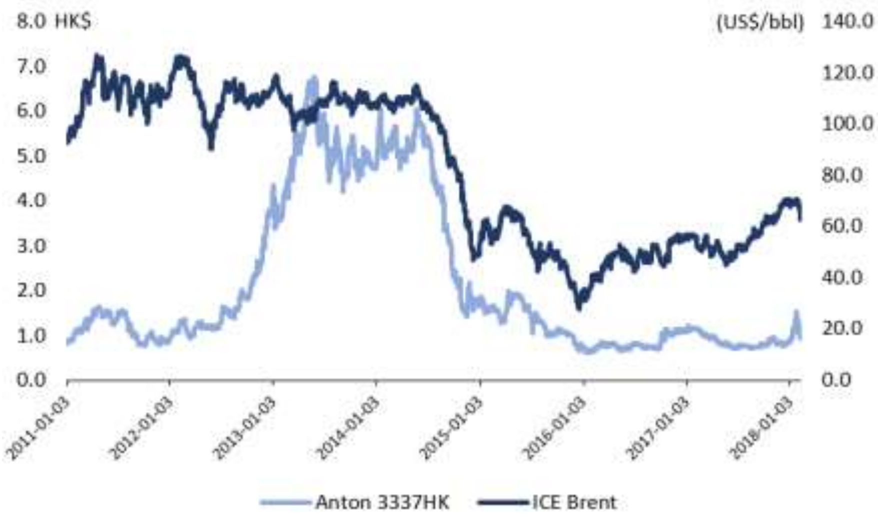


Source: Company data, SWS Research

Market outlook

The fortunes of the upstream field services business track oil price changes closely. As shown in figure 4, Anton's share price soared in 2011-13, when oil prices were at record-high levels, and plummeted in 2014 as oil prices collapsed.

Fig 4: Anton's share price performance and ICE Brent crude oil price



Source: Wind, SWS Research

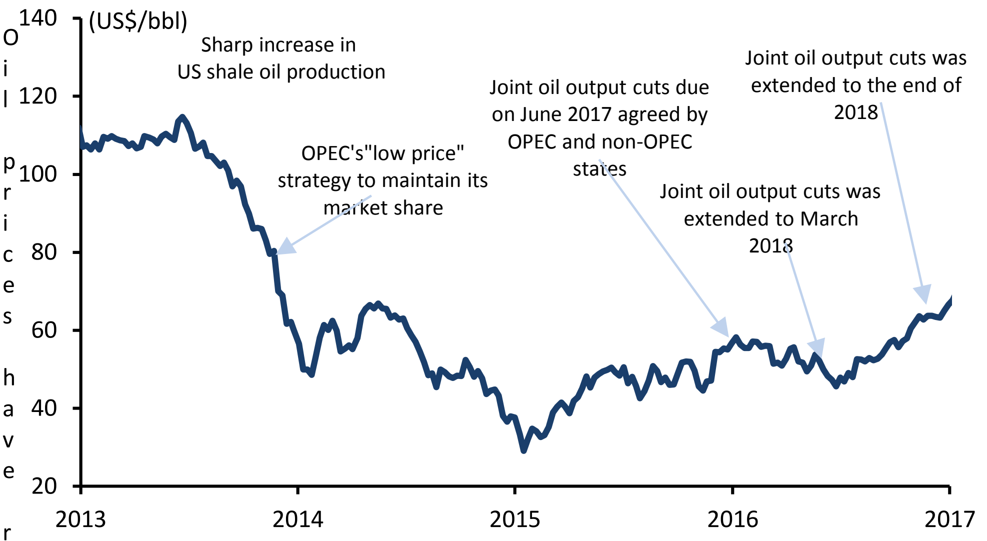
Oil companies, which have the rights to exploit oil and gas, determine annual Capex budgets primarily on the basis of crude oil prices. As a result, changes in oil price are closely related to changes in Capex, thus impacting demand for upstream oilfield services providers.

Fig 5: Conduction mechanism from oil price recovery to company fundamentals

Source: SWS Research

A combination of rapid ramp-up in shale oil production in the US – following a sustained period of high oil prices that incentivised investment in new technology, permitting more efficient mining and treatment of oil shale – and decisions by the Organisation of Petroleum Exporting Countries (OPEC) to increase supply drove crude oil prices from US$110/bbl to US$45/bbl in late 2014. Prices bottomed in early 2016, at which point spot prices of Brent crude sat at US$25.99/bbl and West Texas Intermediate (WTI) crude was US$26.54/bbl. Over the following year, oil prices remained weak, at US$40-50/bbl for much of the next year.

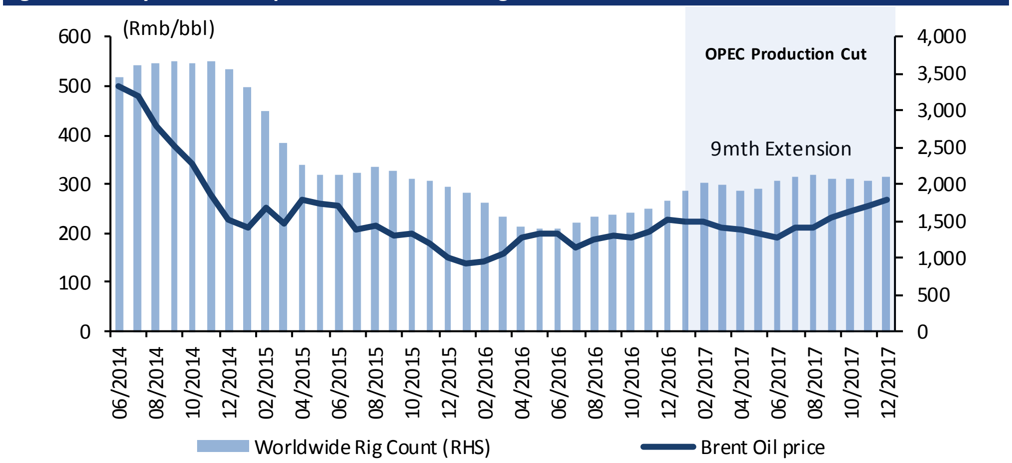
Fig 6: Oil price performance since 2014



Source: Bloomberg, SWS Research

Oil prices have risen sharply since late-2017, when OPEC, Russia and other non-OPEC states agreed to extend production cuts, with Brent topping US$70/bbl in early-2018.

Fig 7: Recovery in Brent oil price and worldwide rig account

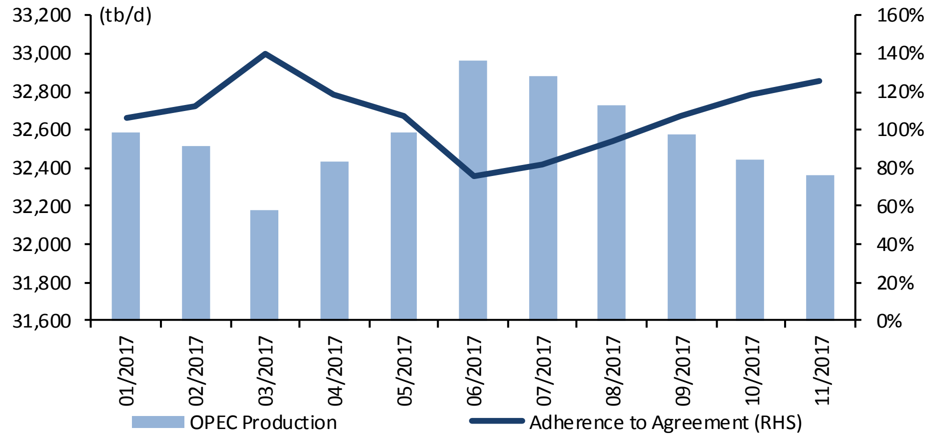


Source: Baker & Hughes, Wind, SWS Research

According to a survey conducted by Reuters in January 2018, based on responses from over 1,000 oil & gas professionals, over the coming three years, the broad consensus forecast of oil prices is c.US$65/bbl in 18F, US$68/bbl in 19F and US$70/bbl in 20F.

After OPEC voted to extend production restrictions until end-2018 to help drive oil prices higher and ensure margins, 11 of the 13 active OPEC members have restricted output. We note a high degree of compliance towards the end of the year, up from 75% of a pledged cut of 1.2m bbls/day in June 2017 to 125% of the target in November 2017, reducing daily output from 33.0m bbls to 32.4m bbls. We note the upcoming IPO of the Saudi national oil company in late-2018, Aramco as a key factor likely to ensure continued compliance from the largest OPEC producer (31% of OPEC output) to ensure a strong valuation; and we note the incentive for other OPEC members to ensure economic stability through a high oil price.

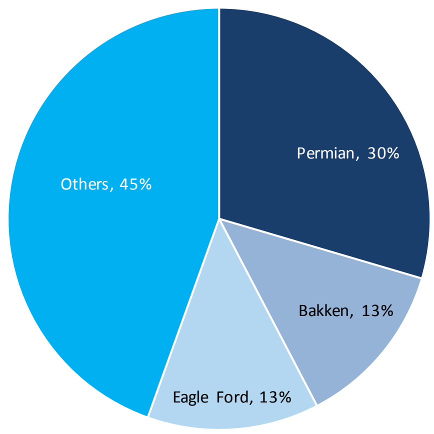
Fig 8: Better compliance after first extension of OPEC production cut



Source: OPEC, SWS Research

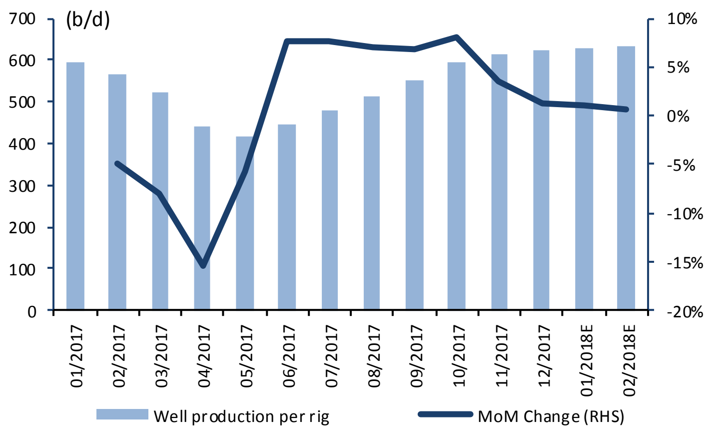
Furthermore, in terms of shale oil supply, we note that output, accounting for 48.3% of total 2016 oil production in the US, one of the world's largest producers of unconventional oil, may be approaching a productivity bottleneck. In the final quarter of 2017, growth in per-rig output in the Permian basin, the main production region in the US, has fallen to zero. As a result, absent new advances in extraction technology, drilling new rigs is the only means of growing overall production. Faced with mounting depreciation costs in the event of a major expansion of rig counts driving up per-barrel production cost, we note skepticism within the conventional industry over the prospect of a significant expansion in future shale oil supply at current oil price levels is low.

Fig 9: Crude oil production breakdown



Source: EIA, SWS Research

Fig 10: Declining Permian well productivity growth

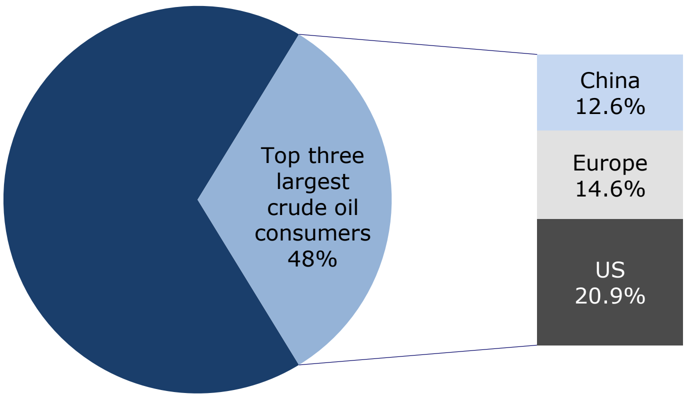


Source: EIA, SWS Research

On the demand side, the positive US economic growth outlook may provide further support to oil demand. The US is one of the major consumers of crude oil and related products, exerting significant influence on the global oil demand. As shown in figure 9, US accounts for 20.4% of the world's crude oil consumption, vs 14.6% for Europe and 12.6% for China.

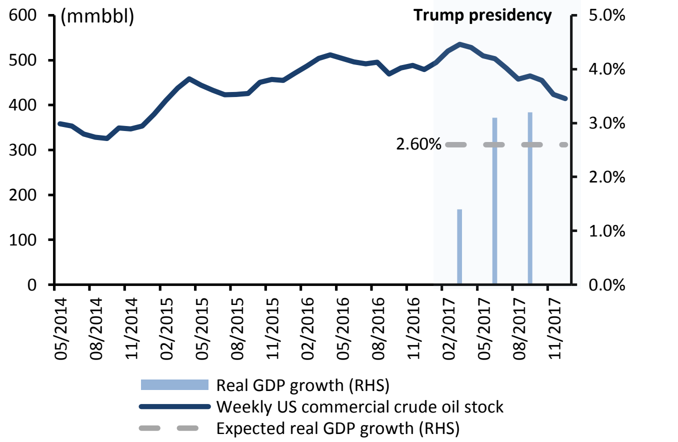
According to monthly reports by the International Energy Agency (IEA), global oil demand grew 1.9% YoY in 2017, representing 2.1mmbpd, mainly thanks to supportive economic conditions in the US and China.

Fig 11: 2016 Global demand breakdown



Source: OPEC, SWS Research

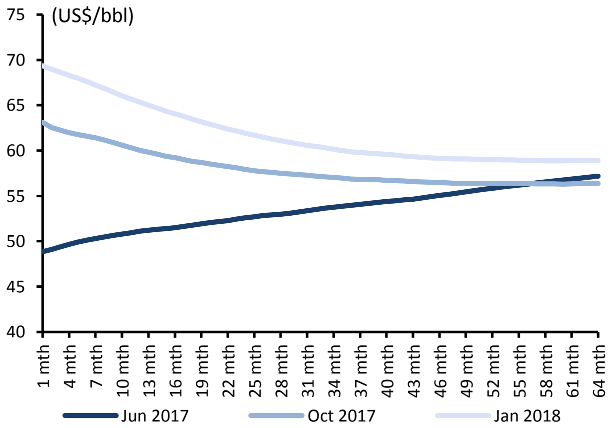
Fig 12: Stronger-than-expected US economic growth boosts oil demand



Source: EIA, SWS Research

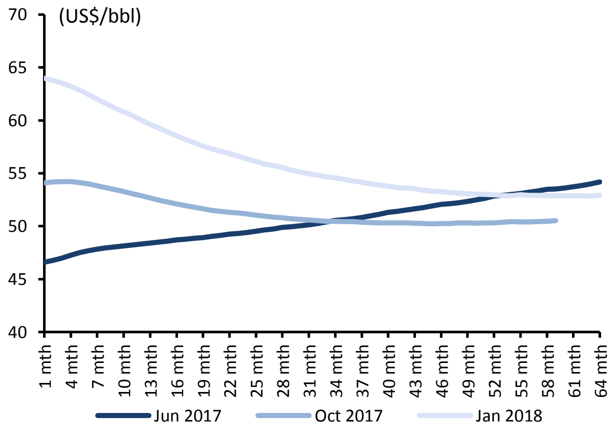
Price curves of oil futures also corroborate the tight supply outlook. Brent and WTI forward curves have shifted from a state of contango in mid-2017 to one of backwardation as of late-2017 and into early 2018, as oil spot prices ticked up sharply. Backwardation underscores the booming immediate-term demand for crude oil.

Fig 13: ICE Brent Forward Curve



Source: Bloomberg, SWS Research

Fig 14: WTI Forward Curve



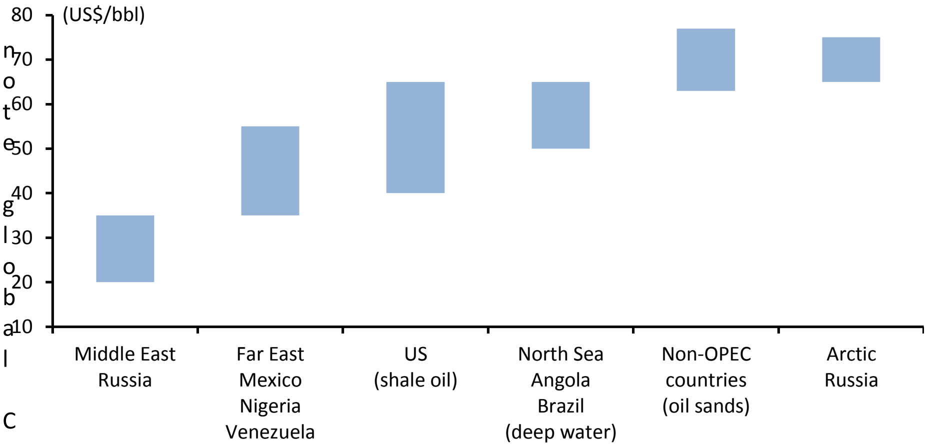
Source: Bloomberg, SWS Research

Upstream Capex outlook

Technological advances have reduced the average global cost of producing a barrel of crude oil, from US$50/bbl in 2014 to US$40/bbl in 2016. As a result, oil & gas companies can continue to lay out Capex at even under lower oil price conditions.

We take the marginal cost of production, representing the level at which the majority of oil companies can break even, as the lowest oil price level at which oil & gas companies will expand Capex. We exclude the Middle East and Russia from our calculation as their Capex decisions are largely independent from oil price changes due to very low production costs (US$20-30/bbl). While the firm benefits significantly from Capex in these regions, substantial changes in Capex in the rest of the world, also have a significant impact. We calculate a global supply-weighted average marginal cost of production of US$56/bbl.

Fig 15: 2016 global crude oil production costs

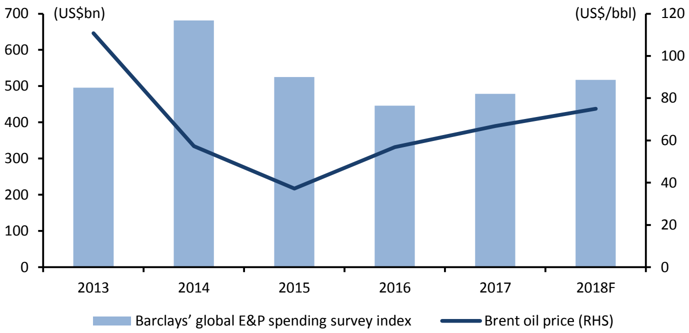


Source: : EOG resources, PIRA, SWS Research

We note global Capex picked up in 2017, after two consecutive years of contraction, as Brent oil price exceeded the US$56/bbl threshold. Given the long-term market view of US$60/bbl, as shown by the ICE Brent forward curve (figure 13), we believe the Capex recovery will be sustainable. During the previous 2009-2010 oil price uptrend, Capex started to pick up in 2010, after Brent oil price increased from US$60/bbl to c.US$80/bbl in 2009.

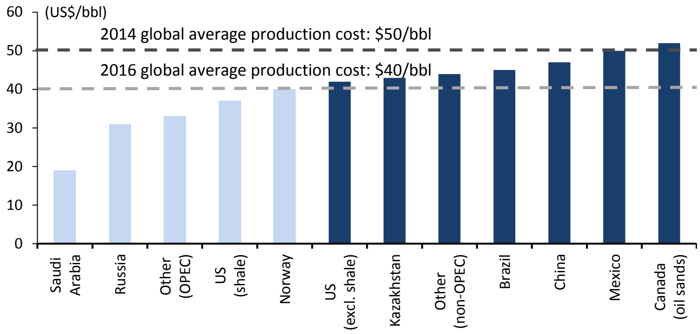
According to our estimations, the oil price threshold for Capex recovery at that time was c.US$70/bbl. With Brent oil price within the US$70-80/bbl range in 2007 and 2010-11, Barclays' global E&P spending survey index grew c.11% YoY, slightly higher than Barclays' 2018F forecast of 8% YoY. In the current cycle, we assume a similar level of growth in Capex, at c.10% YoY, in coming years, if oil prices remain above the current oil price threshold of US$56/bbl.

Fig 16: Barclays E&P Spending Index



Source: : EOG resources, PIRA, SWS Research

Fig 17: 2016 global crude oil production costs

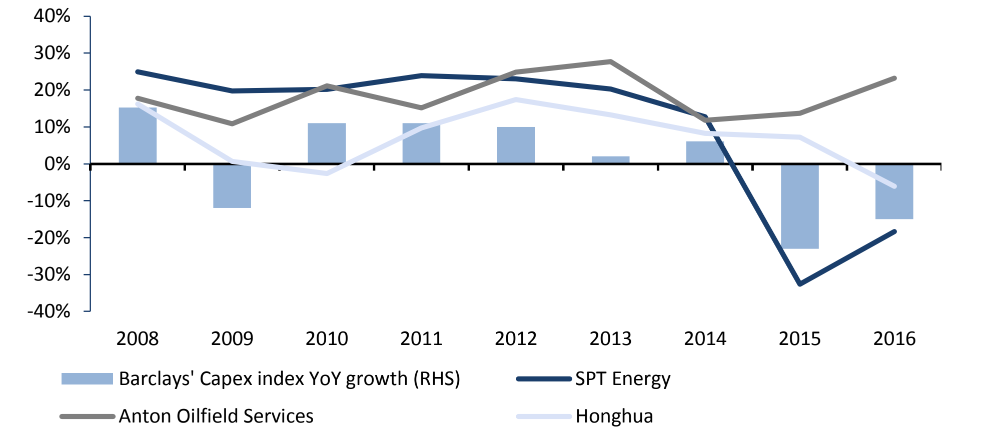


Source: Energy Aspects, SWS Research

Historically, Capex recovery leads to improving fundamentals, in particular profitability, for upstream oil & gas services companies. We note SPT's and Anton Oilfield Services Group's (3337:HK – N-R) Ebitda margin swiftly picked up as Capex recovered in 2010-14, supported by high oil prices. By contrast, oil & gas equipment manufacturer Honghua Group's (196:HK – Outperform) profitability only picked up in 2011. As one of the first destinations for upstream Capex during an upcycle tends to be oilfield services, and investment in new equipment typically occurs after idle capacity is fully utilised, services providers generally show a more rapid response to oil price recovery and Capex growth than equipment providers.

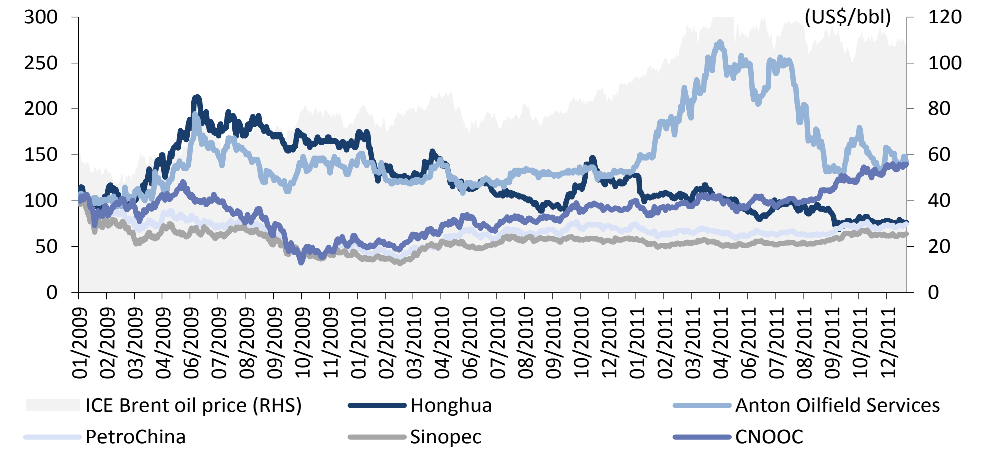
In terms of share price performance, we note upstream oil & gas services providers are more sensitive to oil price changes than upstream equipment manufacturers, like Honghua, and E&P companies, such as PetroChina (857:HK – N-R), China Petroleum & Chemical Corporation (Sinopec; 386:HK – N-R) and CNOOC (883:HK – N-R). Hence, during the 2009-11 oil price uptrend, oil & gas services firms experienced stronger share price performance, while during the 2014-15 oil price downtrend, they witnessed stronger share price corrections. Overall, oil & gas services companies tend to deliver more robust share price performance than equipment manufacturers and E&P companies when oil prices remain largely above the breakeven level.

Fig 18: Ebitda margin of China's upstream oil & gas services companies



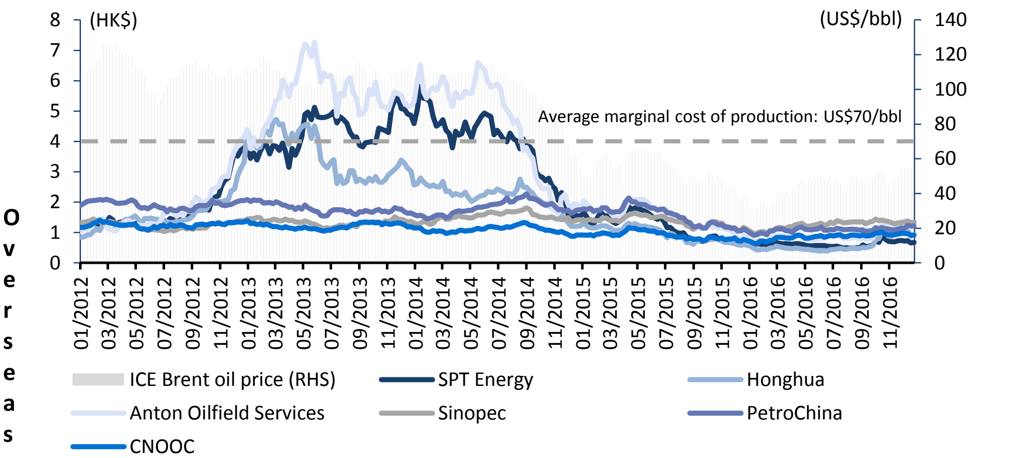
Source: SWS Research

Fig 19: Share price performance of upstream oil & gas companies (base 100), 2009-11



Source: Bloomberg, SWS Research

Fig 20: Share price performance of upstream oil & gas companies, 2012-16



Source: Bloomberg, SWS Research

Overseas market

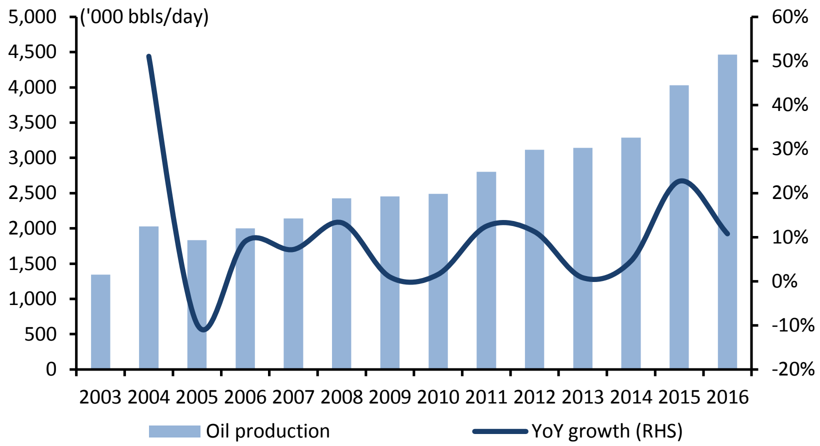
Iraq is Anton's largest overseas market, which currently accounts for over 35% of the company's total revenue in 2016. Compared to other regions, oil companies' capex decisions in Iraq are less influenced by the cost consideration as the cost of developing Iraq's oil fields is extremely low. The supergiant fields being developed in the south are some of the largest in the world, bringing large economies of scale to their exploitation. According to IEA, the average operating cost

(Operating cost includes all expenses incurred by the operator during day-to-day production operations but excludes taxes or royalties) in Iraq is nearly US$2/bbl, compared to global average US$15-US$20/bbl. Therefore, the argument of global bottom price for capex recovery is not suitable to forecast the capex growth in Iraq. We will discuss Iraq market separately in this section.

According to BP Energy, proven reserves in Iraq top 153bn bbls, making it the fifth largest oil source worldwide. Oil production in the 10 years since 2016 expanded at a Cagr of 8.4% to a record of 4.5mmbpd in 2016. The IEA forecasts an increase in crude oil supply, and, with rising oil prices, the outlook for the Iraq government to speed up payments to international oil companies (IOCs) is improving; the IEA anticipates steady growth in investment in production by IOCs, which we view as creating significant opportunity for Anton in future. According to the IEA, Capex growth will remain stable in 17F, pointing to an increase from US$10.7bn in 2016A to US$11.7bn in 2017F (9.3% YoY).

Anton entered the Iraq market in 2012 following the China National Petroleum Corporation's (CNPC) investments in the Halfaya and Ahdeb oilfields. Since that time, the company has formed close relationships with international tier-two oil companies such as LukOil and Eni. According to our checks with company management, Anton received 90% of LukOil's workload in Iraq, which orders offer a higher gross margin (>40%) than Anton's domestic orders (25%-35%). Anton has also formed strategic partnerships with China Oil HBP Science & Technology (002554:CH – N-R) and Geo-Jade Petroleum (600759:CH – N-R) in 2016. HBP, a Chinese independent oilfield service provider which is specialises in engineering, procurement and construction (EPC) services and oilfield surface engineering, complements the company's strength in down-hole operations.

Fig 21: Oil production in Iraq



Source: BP Energy , SWS Research

China market

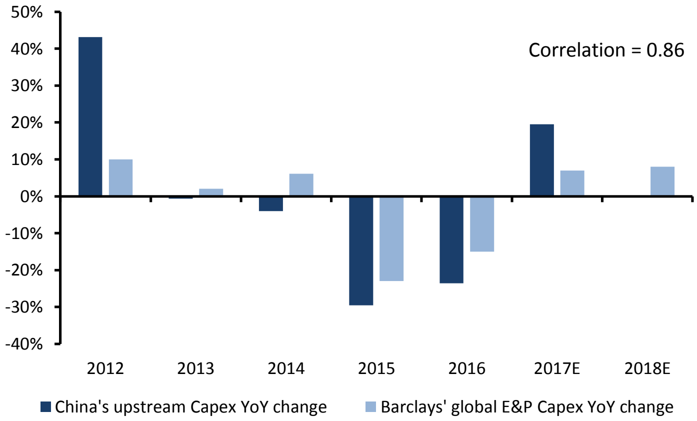
China continues to contribute a significant proportion of Anton's revenue. The market differs from international markets in that state-owned enterprise (SOEs) dominate the market, and the central government thus have a major say in domestic NOCs' strategies.

PetroChina (857:CH – N-R), Sinopec (386:HK – N-R) and CNOOC (883:HK – N-R) are China's three largest NOCs, accounting for 95%-plus of the country's upstream Capex. We use their exploration and production (E&P) expenditure as a proxy for overall upstream market Capex. Although China's Capex growth is significantly correlated (0.86) with global Capex growth, as represented by Barclays' Global E&P Spending Survey Index, Chinese upstream market Capex decreased more during the 2015-16 oil price downturn. We attribute this to China's anticorruption campaign, targeting high-level government officials and SOE senior executives in 2014-16, which led to a period of relative stagnation among large SOEs such as PetroChina, Sinopec, and CNOOC.

We ran a simple regression between China's upstream Capex YoY change and Barclays' global E&P Capex YoY change, as shown in figure 24. By extrapolating Barclays' 7% global Capex YoY growth forecast in 2017F and 8% YoY growth forecast in 2018F, we forecast 17% YoY growth for China's

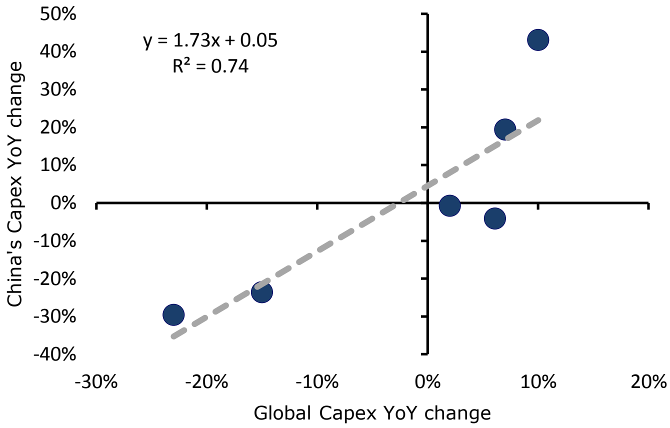
Capex in 2017E and 19% YoY growth in 2018E, which is in line with our expectation of stronger Capex expansion in China to offset the larger decrease in 2015-16. Moreover, we see China's ambitious unconventional gas production plan, aiming to raise the percentage of natural gas in primary energy consumption from 5% in 2017 to 10% in 2020 and 15% in 2030, as a long-term Capex growth driver.

Fig 22: China's Capex growth vs global Capex growth



Source: Company data, SWS Research

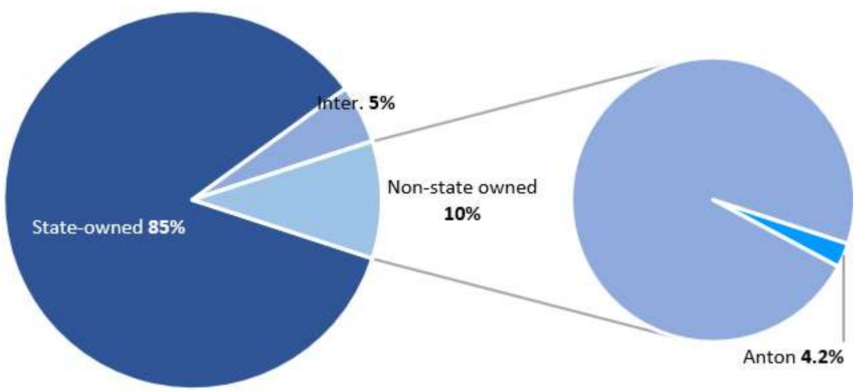
Fig 23: Regression between China's Capex growth and global Capex growth



Source: Barclays, SWS Research

In the domestic market, according to a Peking University study, state-owned oil & gas-field services business accounts for 85% of the market, with non-state-owned actors occupying just 10% of the market and international players accounting for the remainder. We estimate Anton accounts for 10% of total Capex from the two state-owned oil producers, PetroChina and Sinopec. We exclude the third major domestic oil producer, CNOOC due to its offshore focus, while Anton is predominantly an onshore services provider. Furthermore, we estimate that Anton accounts for 4.2% of the domestic non-state-owned market.

Fig 24: Estimated Anton's market share



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Source: Peking University Research Center, SWS Research
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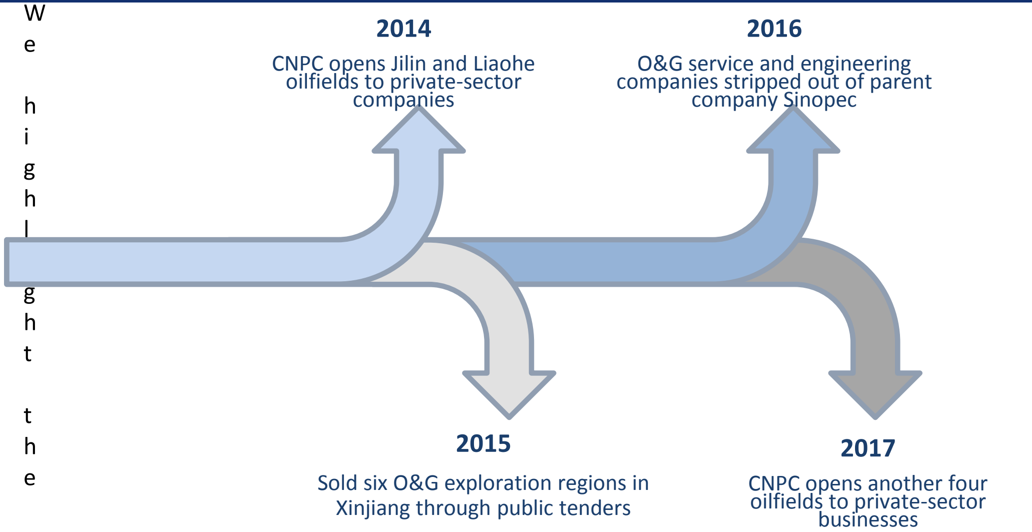
upcoming and significant shift in the composition of the domestic onshore oil production market, as policymakers seek to partially liberalise the oil and gas industry by introducing more competition. The National Development and Reform Commission (NDRC) proposed a reform plan in 2014 to open both upstream and downstream businesses to international and private-sector players. Given Anton's market positioning, in this discussion we limit our focus to upstream market reform.

In mainland China, oil fields are all operated as branches of state-owned oil companies, such as China National Petroleum Corporation (CNPC). After Liaohe and Jilin oil fields were given full economic autonomy in 2014, Xinjiang, Dagang, Huabei, and Tuha oil fields were required to be responsible for their own financial situation, operating under their own accounting books, in December 2017. The six oil fields, which account for c.20% of China's crude oil production, are experiencing rising cost pressure. As a result, oil field management are encouraged to work with private services providers, which tend to offer more competitive prices, thus stimulating growth of the private sector.

Fig 25: Timeline for upstream market reform



Source: SWS Research

We highlight the rapid growth of the unconventional gas market in China, with strong support from Chinese government and sharp growth in downstream demand. Under the government's 13th Five-Year Plan (covering 2016-20) for energy, policymakers target total natural gas consumption of 420bn cubic metres by in 2020, a 16.8% Cagr from 2016 levels. However, we note that China was already experiencing a supply shortfall in 2016, with BP estimating that China produced only 138.3bn cm of natural gas in the year. Assuming the government's consumption target is met and that domestic producers aim to supply 60% of the resultant demand, domestic natural gas supply will have to expand at a 16.2% Cagr over the next four years. Meanwhile, we note a particularly severe shortage and rocketing upstream prices over the past few months as local governments in the Beijing-Tianjin-Hebei region in particular have pushed for coal-to-gas conversions in order to address air pollution, an increasingly pressing priority for local and central governments in China. As such, we note the potential for upside to consumption demand above the government's 2020 target. Therefore, Supply growth could be faster than 16.2% Cagr. Driven by that, we assume total oil and gas market size will grow 18% YoY on average over the next three years, which is in line with our previous regression analysis.(17E/19E: 17%/19%)

Although China's oil reserves are limited, the country boasts significant unconventional gas reserves, and the government is promoting development of a domestic unconventional gas market to supplement natural gas supply. Within the current Five-Year energy plan, policymakers target production of 30bn cm of shale gas and 100bn cm of coal gas by 2020. To further expand the production capacity in the domestic unconventional blocks, the government has gradually lowered entry barriers to private-sector oilfield services providers. Anton, which has substantial experience in unconventional oil (being the first domestic firm to carry out openhole horizontal well stimulations, an important procedure to exploit shale oil and gas, and undertaking China's first horizontal shale gas well fracturing technology services, underscoring its reputation for technology leadership), we believe the company stands to benefit significantly from the rapidly expanding market. Based on Anton's technological competence, we assume the market share of Anton will raise from 4% in 2016 to 5% in 2019.

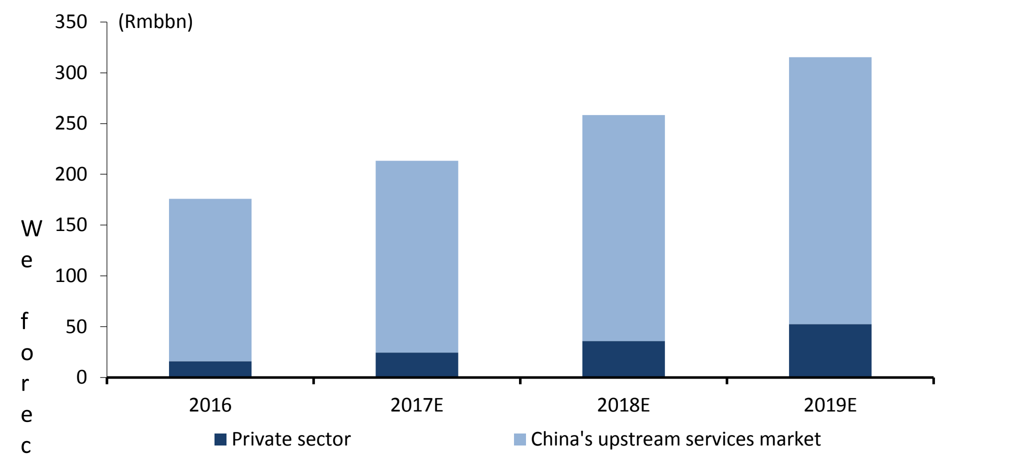
Fig 26: Government targets for natural gas consumptions under current and previous Five-Year plans for energy

	2015 targets	2020 targets	Cagr
Percentage of natural gas in the primary energy consumption (%)	5.9	8.3-10	

Natural gas consumption (bn cm)	193	420	16.8%
Natural gas users (m)	230	470	15.4%
Urban gasification rate (%)	42.8	57	
Length of domestic pipeline network ('000km)	640	1040	10.2%
Installed capacity (MW)	70	110	9.5%
NGV fueling stations	6,500	12,000	13.0%
Fleet fueling station	13	200	72.7%

Source: NDRC, SWS Research

Fig 27: Estimated market size of China's private upstream services sector



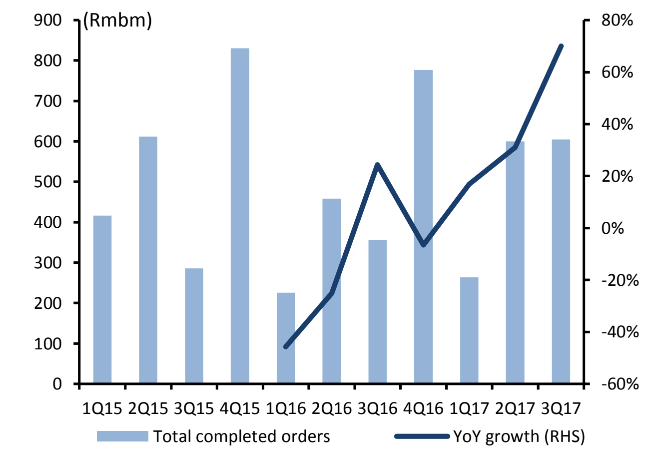
Source: SWS Research

We forecast China's upstream oil & gas Capex to grow 18% YoY on average over the next three years. Moreover, we expect the private sector, accounting for just 10% of the market in 16A, to increase in importance, contributing 20% of market revenue by 19E.

Anton: Orders flow

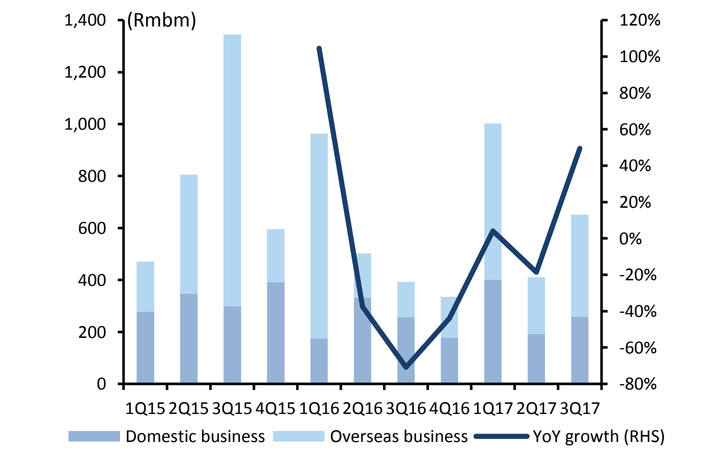
In the current oil upcycle, Anton's fundamentals have already shown signs of improvement. New orders and completed orders have picked up in the past three quarters on a YoY basis. The company recorded new orders of Rmb1bn in 1Q17 (+4% YoY), Rmb410m in 2Q17 (-19% YoY) and Rmb588m in 3Q17 (50% YoY). Consequently, completed orders soared 31% YoY in 2Q17 and 71% YoY in 3Q17.

Fig 28: Quarterly completed orders



Source: Bloomberg, SWS Research

Fig 29: Quarterly new orders



Source: Bloomberg, SWS Research

As order flow is a good indicator of revenue, our approach to modelling the firm's revenue separates domestic and overseas order flow, on the basis of the firm's historically higher conversion rate of new domestic orders (averaging 95%) and completion of new overseas orders (an average of 82%); we assume stable conversion rates in line with the respective historical averages.

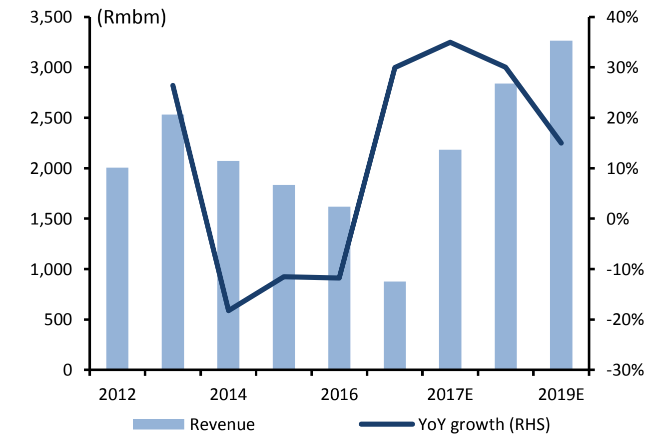
In the firm's global business, we make reference to the IEA's global 18F Capex growth forecast of c.10% YoY and similar Capex growth in Iraq in 18F as compared with 17A's 9.3% YoY. On this basis, we assume completed overseas order flow for the company will grow 10% YoY each year in 2018-19E.

In the domestic market, on the basis of our assumption that the private oil & gas services sector will expand 3.5 times over the same period, reaching Rmb53bn in three years (48.7% Cagr), and based on our expectation that Anton's market share of the private sector market will rise from 4% to 5% on the back of its technological advantages in unconventional oil exploitation, we see potential market size of orders for Anton as expanding 52% YoY over the next three years. However, given the uncertainty related to the political will and capacity to enforce wholesale reform of a significant market, we take a more conservative approach in our input assumptions to our model, and assume Anton's domestic completed order flow to grow 20% each year in 2018-19E.

As such, we forecast overall completed orders of Rmb2.4bn in 17E (+30.0% YoY), Rmb2.7bn in 18E (+14.0% YoY) and Rmb3.1bn in 19E (+14.0% YoY). Of this, we see domestic orders increasing in importance for the firm, rising from a 38.7% contribution in 16A to a 42.9% contribution by 19E.

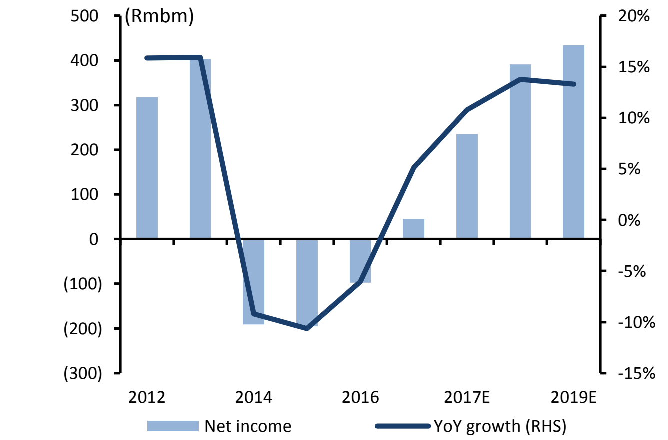
We forecast revenue of Rmb2.1bn in 17E (+ 31.1% YoY), Rmb2.4bn in 18E (+13.5% YoY) and Rmb2.7bn in 19E (+13.7% YoY). We break this down into a contribution from overseas revenue of Rmb1.4bn in 17E (+59% YoY), Rmb1.5bn in 18E (+10% YoY) and Rmb1.7bn in 19E (+10% YoY), representing an 24.3% Cagr, while domestic revenue of Rmb0.7bn in 17E (+0% YoY), Rmb0.9bn in 18E (+20% YoY) and Rmb1.1bn in 19E (+20% YoY), representing an 12.7% Cagr.

Fig 30: Revenue



Source: Bloomberg, SWS Research

Fig 31: Net profit

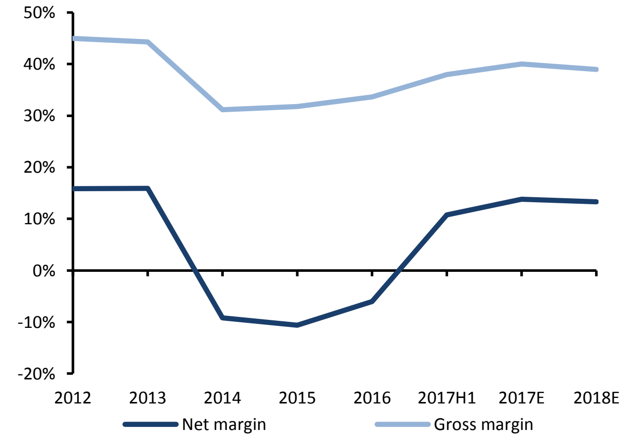


Source: Bloomberg, SWS Research

We estimate the company's gross margin at 38.0% in 17E up 4.4ppts YoY, as postponed orders were started; we expect further improvements in coming years with the rising contribution from the firm's domestic turnkey project business. According to our check with the management, Anton has acquired a Rmb100m turnkey project order and a Rmb50m shale gas drilling order in Sichuan Province in 4Q17, which have 40%-plus gross margin. With governmental support, we expect increased order flow of unconventional projects. On this basis, we derive a forecast gross margin of 38.0% in 17E, rising to 39.0% and 40.0% in 2018-19E.

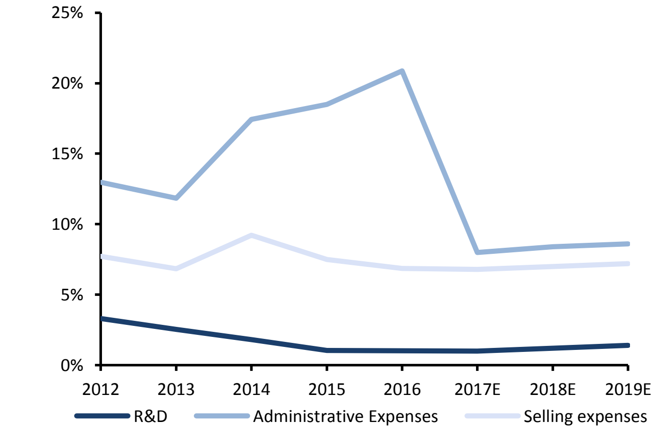
With the diversified client base and improving brand image, the company would dedicate to enhance the project management, focusing more on the projects that have higher returns and better cash flow, which would also increase the overall gross margin of the company. Meanwhile, we expect the firm's operating expenses – selling, administrative and R&D costs - to reduce in relation to the firm's revenue as the firm's business ramps up in 17E, driven primarily by a significant decline in administrative cost after the firm conducted a one-time special redundancy plan in order to streamline costs in response to the challenging environment, along with other measures such as increasing its use of performance-based compensation to mitigate costs during cyclical downturns. On this basis, we expect the percentage of administrative expenses within revenue decreased from 20% to 13% in 17E. In 2018-19E, we expect these expenses to increase again mildly as a proportion of sales as the firm seeks to build business.

Fig 32: Gross and net margins



Source: Company data, SWS Research

Fig 33: Operating expenses as a proportion of revenue



Source: Company data, SWS Research

We also expect an improving financial condition of the company with its recovering business and improving fundamentals. In November, the company raised US$300m in a 9.75% 3-year bond to replace an expiring US$247m issue of 8.00% bonds due January 2018, lifting its debt load from Rmb2.6bn in 16A to Rmb3.4bn in 17E (+33.2%), representing 155% of its equity base. Based on our assumption of a general decline in total debt in coming years, to Rmb3.0bn in 18E (-13.2% YoY) and Rmb2.9bn in 19E (-3.8% YoY), we expect the firm's use of leverage to remain under control, translating to a debt-equity ratio of 116% in 18E and 93% by 19E; the firm's interest coverage over this period will increase from 0.7x in 16A to 2.2x in 17E and reach 4.0x in 19E. We note that both Moody's and Fitch have increased their ratings for Anton, with Moody's lifting the company from Caa3 to B3 (with a "positive" outlook) in December last year and Fitch lifting it from a vulnerable CCC rating, held since early-2016, to a stronger B- rating in December. We view these developments as underscoring the firm's strengthened ability to meet its obligations. We further note that, in comparison with SPT Energy (1251:HK – O-PF), Anton uses debt more aggressively, with the stronger profitability enabling it to still record a significantly better ROE.

Fig 34: Debt ratio

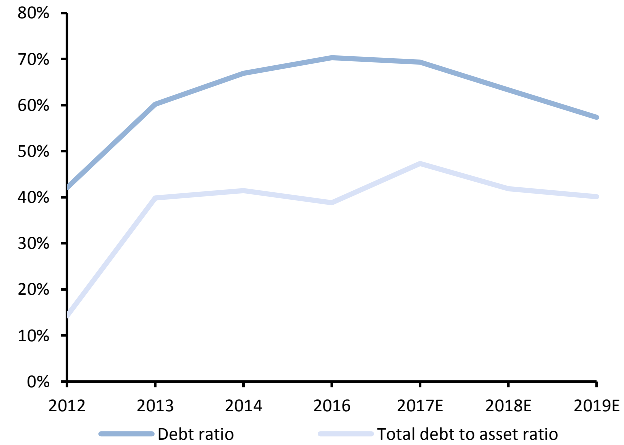
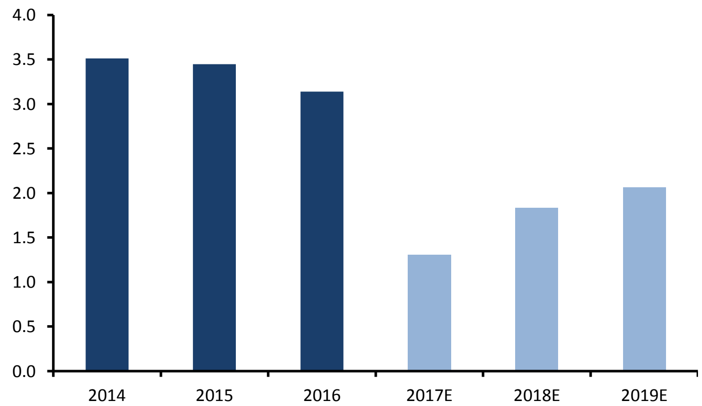


Fig 35: Interest coverage

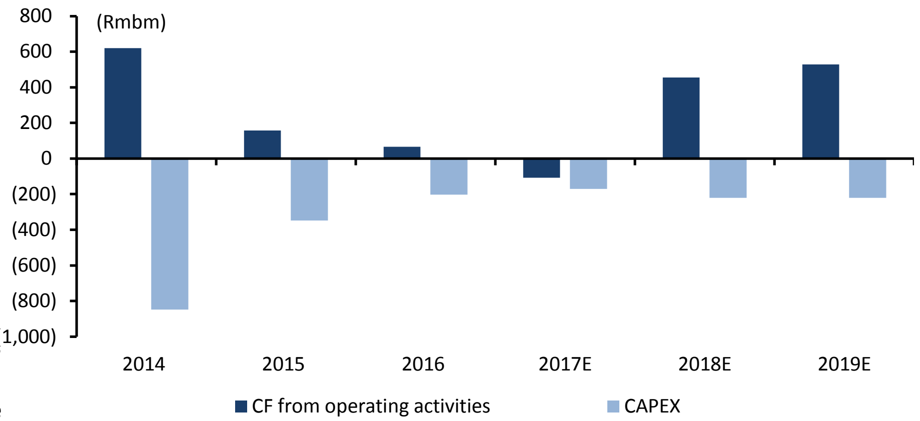


Source: Company data, SWS Research

Source: Company data, SWS Research

In order to enhance its financial condition over the next three years, company management is prioritising cash flow over profitability. According to our check with the management, the company will spend Rmb150m in 17E Capex, Rmb200m in 18E and Rmb200 in 19E. Due to shorter receivable days as upstream Capex expands, we expect operating cash flow to positive in 18E.

Fig 36: Anton's operating cash flow and Capex



Source: Company data, SWS Research

Scenario Analysis

As our modelling of Anton's performance in the coming years is predicated upon global oil price forecasts, we review the sensitivity of our bottom line forecasts on key assumptions; specifically, significant deviation in oil price from

Bull case: Stronger-than-expected US and China's economic growth would boost the demand for crude oil, driving up short-term oil prices above US$70/bbl. The market would adjust its long-term oil price forecast accordingly, beating Reuters' survey forecast of US$65/bbl. Given soaring oil prices, we believe global Capex would increase at the same average growth rate as when oil prices exceeded US$70/bbl during the previous upward cycle (c.+15% YoY), benefiting upstream oil & gas services companies, such as Anton. Under this scenario, we expect the company to experience double-digit revenue growth and substantial improvement in profitability. We believe the 15% YoY growth in oil companies' Capex would trigger an upward Capex investment upcycle for upstream services firms. However, surging oil prices would ease concerns about increasing production costs, leading US shale oil supply to grow substantially, thus weighing on the sustainability of oil price hikes. If oil prices unexpectedly decrease due to the sudden increase in long-term supply, large depreciations will negatively affect the company's profitability, as in the precious cycle.

Base case: We expect crude oil supply and demand to maintain the price of oil between the Capex recovery threshold of US$56/bbl and Reuters' survey forecast of US$65/bbl. Under this scenario, OPEC countries would maintain tight supply due to economic concerns. Shale oil supply would not rise substantially given increasing production costs, thus supporting the long-term stability of oil prices. As technology advances decrease average production costs, global Capex would increase steadily, at a rate of 8-10% YoY. Upstream services providers would benefit the most from this situation as they would receive steady order flows from oil companies, given solid Capex growth, thus making revenue growth sustainable. Moreover, a stable oil price outlook would encourage oil & gas services providers to increase Capex in the long run, providing further upside potential.

Bear case: Due to an unexpected shock to the global economy, demand would weaken and crude oil inventories pile up. Under this scenario, the OPEC could decide to cancel the production cut pact, increasing global oil supply. The combination of weakened demand and growing supply would drive oil prices below the Capex recovery threshold of US$56/bbl. As a result, global Capex would contract, catching upstream services companies off guard, and thus leading Anton's profitability to tumble.

Fig 37: Scenario analysis table for 2018 Anton's net profit Forecast

(Million Yuan)		Domestic completion order growth						
		-10%	**0%**	**10%**	**20%**	**30%**	**40%**	**50%**
Overseas completion order growth (global capex growth)	**-30%**	54.8	65.3	75.9	86.4	96.9	107.4	117.9
	-20%	74.2	84.7	95.2	105.7	116.2	126.8	137.3
	-10%	93.5	104.0	114.5	125.1	135.6	146.1	156.6
	0%	112.8	123.4	133.9	144.4	154.9	165.4	175.9
	10%	132.2	142.7	153.2	163.7	174.2	184.8	195.3
	15%	141.8	152.4	162.9	173.4	183.9	194.4	205.0
	20%	151.5	162.0	172.5	183.1	193.6	204.1	214.6
	30%	170.8	181.4	191.9	202.4	212.9	223.4	234.0

Source: SWS Research

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In the bull case when overseas completion order growth is at least 15% YoY, Anton's net profit generally grows substantially compared to Rmb111m profit in 2017E. In the bear case when global capex growth dropped below zero, there is higher possibility that net profit will decrease in 2018E.

To this day, we have not seen any sign of large economic slowdown or sudden increase in supply. Therefore, we believe the base case and bull case scenarios are more likely than the bear case scenario. We see US shale oil as the most imminent threat to the current uptrend. We expect global Capex to grow moderately in 2018-19E, with a positive impact on Anton's fundamentals.

We assume in our analysis that long-term oil price stays around US$65/bbl and global Capex growth reaches 10% YoY in 18E and 19E, leading to 10% YoY growth in the firm's completed overseas orders, and 20% YoY growth in domestic completed orders. If long-term oil price deviates from our base-case assumption by +10% to US$71.5/bbl, we expect global Capex growth to increase from 10% YoY to 15% YoY, lifting our 18E revenue forecast 25.0% from Rmb1.6bn to Rmb2.0bn; likewise, a 10% downside deviation in oil price from our base-case assumption to US$58.5/bbl in 2018 is would lower our revenue forecast for the year 43.8% from Rmb1.6bn to Rmb0.9bn.

Fig 38: Scenario analysis table for 2018 Anton's net profit Forecast

Oil price change	Global Capex growth	Completed order flow growth	Change in Anton's net profit in 2018E
+10%	15% YoY	>15% for overseas, >30% for domestic	+25.0%
+5%	13% YoY	13% for overseas, 25% for domestic	+6.7%
Base	10% YoY	10% for overseas, 20% for domestic	Base
-5%	5% YoY	5% for overseas, 15% for domestic	-9.1%
-10%	< 0% YoY	<0% YoY for overseas, <10% for domestic	-43.8%

Source: SWS Research

aluation

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a three-stage discounted cash flow (DCF) valuation model to value Anton. We derive a target price of HK$1.10 (14.4x 18E PE), within a reasonable level given its historical range of 0-60x forward earnings, and vs the 13.2x 18E PE valuation for the firm's closest, but less profitable, peer SPT Energy. We note otherwise a lack of close comparable peers for the purposes of a relative valuation comparison.

In terms of dividend yield, we note that the firm has not paid a dividend since 2013, and, given the firm's interest payment commitments, we see limited prospect that management will resume distributions to shareholders in the near-term.

Fig 39: WACC calculation

Item	Estimation	Source / method used

Risk-free rate	3.8%	SWS Research
Equity risk premium	6.8%	SWS Research
Beta	1.4	Bloomberg
Cost of equity	13.4%	CAPM
Nominal cost of debt	8.0%	Historical average
Debt-to-equity ratio	100.0%	Long-term capital structure
Effective tax rate	20.0%	Long-term value combined with current tax rate
WACC	**9.87%**	

Source: SWS Research

Fig 40: DCF valuation

(Rmbm)	Value	Proportion
Stage 1 (fast growth)	1,152	21%
Stage 2 (stable growth)	948	18%
Stage 3 (terminal value)	2,771	52%
Core firm value	**4,872**	**91%**
Plus: Non-core long-term investment	0	0%
Bank balances and cash	507	9%
Held-for-trading investment	0	0%
Total firm value	**5,379**	**100%**
Minus: Interest bearing debt	2,586	48%
Minority interests	432	8%
Equity value	2,361	44%
Share capital (m)	2,660	
Equity value per share (Rmb)	0.89	
Equity value per share (HK$)	**1.10**	

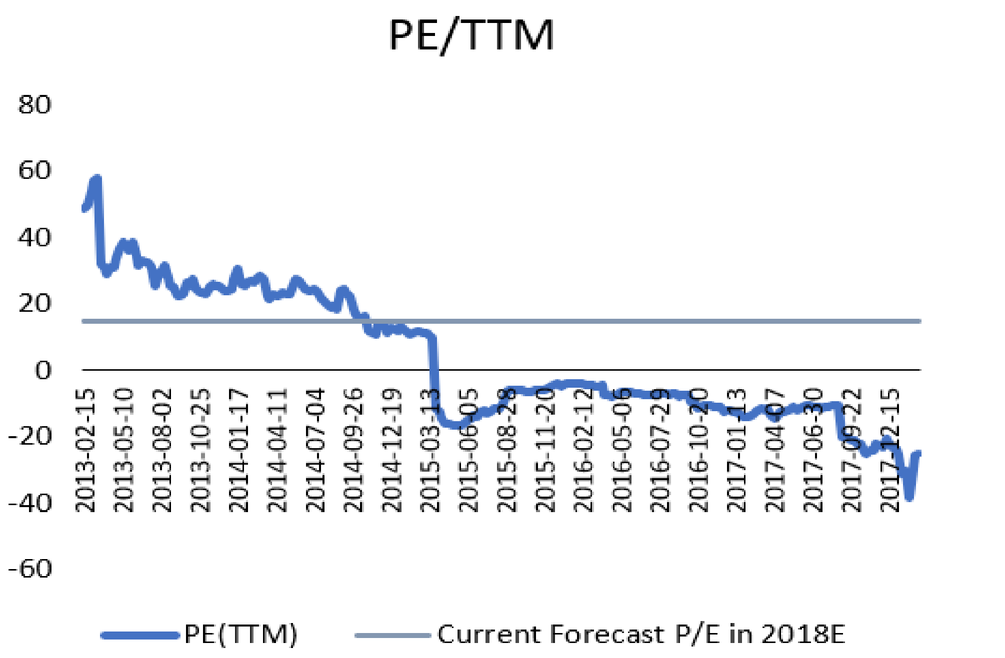
Source: SWS Research

We believe that one of the reasons for the sharply lower current valuation than the stock is worth is that the market continues to await a higher production cost threshold for sustainable upstream Capex, as in previous cycles, and thus underestimates the potential for recovery among oil & gas services stocks at current oil prices. We expect faster revenue growth than consensus.

We also note a disconnect between the Street's outlook for oil (Reuters' market survey points to 2018 oil price of US$65/bbl, and a number of sell-side outlets have recently lifted forecasts to US$70-plus, while forward curves suggests that market has only priced in a US$60/bbl level at present). As such, we expect the closing gap as the market catches up to the more positive industry analyst views may provide further support for Anton's share price performance.

We see lower-than-expected oil prices and financial risks as the main downside risk for Anton, while considering OPEC's production cut decisions and global economic growth as two important catalysts for the stock.

Fig 41: Anton's Historical P/E



Source: SWS Research

Appendix

Consolidated Income Statement						
RMB mn	2014	2015	2016	2017E	2018E	2019E
Revenue	2,071	1,833	1,618	2,120	2,407	2,738
Cost of Sales	(1,426)	(1,250)	(1,074)	(1,315)	(1,468)	(1,643)
Gross Profit	645	583	544	806	939	1,095
Other gains	(2)	21	69	28	32	36
Selling expenses	(191)	(137)	(111)	(148)	(169)	(197)
Adminstrative expenses	(260)	(300)	(361)	(276)	(337)	(438)
EBITDA	649	655	643	340	430	461
EBIT	38	92	143	378	424	444
Finance Costs	(178)	(255)	(173)	(265)	(219)	(208)
Profit before tax	(160)	(163)	(31)	113	205	236
Income tax expense	(31)	(32)	(67)	(23)	(41)	(47)
Minority interests	7	(1)	63	5	8	9
Profit for the year	(191)	(195)	(98)	91	164	189

Source: SWS Research;

Consolidated Cash Flow Statement						
RMB mn	2014	2015	2016	2017E	2018E	2019E
Profit before taxation	(160)	(163)	(31)	113	205	236
Plus：Depr. and amortisation	208	188	187	227	225	225
Finance cost	(178)	(255)	(173)	(265)	(219)	(208)
Losses from investments	0	0	0	0	0	0
Change in working capital	(220)	(184)	232	(13)	(66)	(114)
Others	24	22	(14)	7	3	0
CF from operating activities	620	157	66	(128)	456	528
CAPEX	(848)	(348)	(202)	(170)	(220)	(220)
Other CF from investing activities	272	215	(220)	25	0	0
CF from investing activities	(576)	(133)	(422)	(145)	(220)	(220)
Equity financing	(5)	0	(3)	0	0	0
Net change in liabilities	259	(327)	9	143	(456)	(112)
Dividend and interest paid	(127)	(11)	(17)	0	0	0
Other CF from financing activities	66	9	335	0	0	0
CF from financing activities	193	(329)	520	163	(456)	(112)
Net cash flow	(1,002)	(305)	31	(110)	(220)	196
FCFF	(414)	85	(171)	425	455	516
FCFE	(2,344)	(1,916)	(2,250)	(2,623)	(2,357)	(1,988)

Source: SWS Research;

Consolidated Balance Sheet

RMB mn	2014	2015	2016	2017E	2018E	2019E
Current Assets	3,556	3,120	3,704	4,209	3,696	3,480
Bank balances and cash	1,186	843	1,244	1,362	1,142	1,337
Trade and other receivables	1,660	1,443	1,679	2,038	1,852	1,581
Inventories	710	834	781	809	703	561
Other current assets	0	0	0	0	0	
Non-current Assets	2,935	3,064	2,957	2,878	2,873	2,869
PP&E	2,293	2,356	2,272	2,213	2,207	2,202
Intangible and other assets	453	439	463	500	501	502
Other non-current assets	188	269	222	165	165	165
Total Assets	6,491	6,183	6,661	7,088	6,570	6,348
Current Liabilities	2,642	2,635	2,180	2,829	2,147	1,849
Borrowings	993	875	801	1,278	822	822
Trade and other payables	1,603	1,735	1,335	1,506	1,280	982
Other current liabilities	46	25	44	45	45	45
Non-current Liabilities	1,700	1,589	2,504	2,172	2,172	2,059
Deferred tax liabilities	4	4	4	4	4	4
Long term payable to MI	0	0	715	0	0	0
Long term borrowings	1,697	1,585	1,784	2,167	2,167	2,055
Total Liabilities	4,342	4,224	4,684	5,001	4,319	3,908
Shareholder Equity	2,054	1,894	1,545	1,651	1,806	1,986
Share Capital	207	208	227	246	246	246
Reserves	1,847	1,686	1,318	1,404	1,560	1,740
Minority Interests	95	66	432	437	445	454
Total Liabilities and equity	6,491	6,183	6,661	7,088	6,570	6,348

Source: SWS Research;

Key Financial Ratios

	2014	2015	2016	2017E	2018E	2019E
Ratios per share (yuan)						
Earnings per share	-0.09	-0.09	-0.04	0.03	0.06	0.07
Diluted EPS	-0.09	-0.09	-0.04	0.03	0.06	0.07
Operating CF per share	0.28	0.07	0.02	-0.05	0.17	0.20
Dividend per share	-	-	-	-	-	-
Key Operating Ratios(%)						
Net assets per share	0.93	0.85	0.58	0.62	0.68	0.75
ROIC	0.14	1.39	1.84	6.97	7.99	8.16
ROE	-8.44	-9.50	-4.96	4.46	7.56	8.06
Gross profit margin	31.16	31.79	37.55	38.00	39.00	40.00
EBITDA Margin	31.32	35.75	39.76	16.04	17.87	16.84
EBIT Margin	1.83	5.04	8.85	17.82	17.62	16.22
Growth rate of Revenue(YoY)	-18.25	-11.50	-11.75	31.08	13.52	13.72
Growth rate of Profit(YoY)	-	-	-	-	81.19	15.18
Debt-to-asset ratio	66.90	68.31	70.32	70.55	65.73	61.56

Turnover rate of net assets	0.96	0.94	0.82	1.02	1.07	1.12
Turnover rate of total assets	0.32	0.30	0.24	0.30	0.37	0.43
Effective tax rate (%)	19.59	19.54	38.83	20.00	20.00	20.00
Dividend yield (%)	-	-	-	-	-	-
Valuation Ratios (X)						
P/E	-	-	-	20.66	11.40	9.90
P/B	1.35	1.48	1.47	1.39	1.29	1.19
EV/Sale	2.33	2.67	3.08	2.80	2.37	1.97
EV/EBITDA	7.45	7.48	7.74	17.49	13.28	11.72

Source: SWS Research;

Appendix: Anton's Management

Name	Position	Summary
LUO Lin	Chairman	LUO Lin established Anton in 1999, and has worked in the petroleum indusry for 23 years.
WU Di	Executive Director and Executive Vice President	WU Di joined Anton in 2010, and now takes charge of business supporting and counselling. WU Di has worked in the petroleum indusry for more than 27 years, and has a 20-year working experience in China National Petroleum Corporation (CNPC). He is also a senior engineer with professorship, he
PI Zhifeng	Executive Director and Chief Executive Officer	PI Zhifeng joined Anton in 2004, and is now in charge of the overall business of the Group.
John William CHISHOLM	Non-executive Director	Mr. Chisholm is currently the chairman of the board of directors, president and chief executive officer of Flotek Industries, Inc. He has established Wellogix, and then co-founded ProTechnics; afterwards started Chisholm Energy Partners. He has also been appointed by the Oil and Gas Journal to be on the editorial advisory board of Middle East Technology.
ZHANG Yongyi	Independent Non-executive Director	ZHANG Yongyi has taught in the Southwest Petroleum Institute for more than 32 years. Then he worked as the Deputy General Manager in CNPC, as an inspector in the State Council of the PRC and as Chairman of the Supervisory Committee for State-owned Large and Medium Enterprises.
ZHU Xiaoping	Independent Non-executive Director	ZHU Xiaoping is now appointed by the Renmin University of China as an Accounting Professor. He serves as Director of both Linzhou Heavy Machinery Group Co., Ltd.and China Resources Double-crane Pharmaceutical Co., Ltd.
WANG Mingcai	Independent Non-executive Director	WANG Mingcai held positions including the General Manager and Chairman of the board of directors in Sino-U.S. Oil Development Corporation, the Vice Chief Engineer in Exploring and Development Bureau of China National Petroleum Company, Vice General Manager in China National Oil & Gas Exploration and Development Corporation, President in CNPC Venezuela Corporation, and Executive Director in Kunlun Energy Company Limited.
FAN Yonghong	President and CTO	FAN Yonghong has worked in the petroleum industry for 25 years, and has joined Anton since 2004. He is now responsible for daily operations of the Company.
SHEN Haihong	Executive Vice President	SHEN Haihong has worked in the petroleum industry for more than 25 years, and has joined Anton since 2007. Currently he is resbonsible for operation, quality control and QHSE management.
Yan Yonggang	Executive Vice President	Yan Yonggang joined Anton in 2007, and currently is in charge of the drilling technology cluster.
MA Jian	Executive Vice President	MA Jian has worked in the petroleum industry for 25 years, and has joined Anton since 2002. He obtained a Doctorate from China University of Petroleum, and is appointed by Yangtze University as a guest professor.
XU Hongjian	Financial Controller	XU Hongjian joined Anton in 2006, and is now resbonsible for the Group's financial accounting, financial management, asset and capital management work, and budget management. Before joining Anton, he has an experience of working for Deloitte & Touche LLP as a financial audit.

Source: SWS Research

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