

Company Report

China Gas (384 HK)

Reverse roadshow takeaways

■ We visited China Gas's rural gas connection and distributed energy projects in Qingdao

■ The development of rural coal-to-gas projects is on track; rural households are willing to pay the gas bill after the government's subsidy expires due to the convenience and safety

■ We maintain BUY and TP at HK\$37.0. Stock is trading at 13.0x FY20E P/E, 16% discount to its 5-year historical trading level

Development of rural coal-to-gas projects on track

We visited two rural household coal-to-gas conversion projects located in Zhang Chun Henan and Xidengying. These projects were connected last year with government subsidies of RMB4,000 for connection fee and RMB3,000 for wall-hung gas heater. In general, around 850-1,150cu m of gas is needed for rural households per annum, implying a full year gas bill of RMB2,465-3,424. Rural households need to prepay the gas bill and then claim the RMB1.67/cu m of gas subsidy, which is capped at RMB2,000/year, with the government for the first three years. So, the actual gas bill for the rural households is RMB1,046-1,504/year. Rural households comment that they will continue to use natural gas after government's subsidy expires due to the convenience and safety. With more than >5mn rural residents contracts on hand, management is confident to meet its rural connection rollout guidance of 2.0-3.6mn households in FY19-21.

Distributed energy business will become another earnings driver in next five years

China Gas's distributed energy projects mainly cover three key areas, including 1) distributed energy for commercial and industrial buildings; 2) distributed energy for industrial zone and 3) distributed heating. The company plans to operate 100 projects in FY22 vs 44 in FY18. The heating areas will then be grown from 8mn sqm in FY18 to 100mn sqm in FY22 and 7bnkWh of electricity and 2.6bn cu m of gas demand will be generated. Management estimates that excluding the profit from gas sales, the project IRR of distributed energy projects is 10-13% on average. Management also forecasts that net profit contributed by its distributed energy projects will edge up to RMB1.8bn in FY22 from RMB32.4mn in FY18.

Financials

Year ended 31 Mar (HK\$mn)	2017	2018	2019E	2020E	2021E
Revenue	31,993	52,832	68,219	84,944	103,687
Gross profit	8,377	11,671	14,597	17,990	21,738
Reported net profit	4,148	6,095	7,560	9,584	11,393
Recurring net profit	4,475	6,362	7,860	9,584	11,393
Recurring EPS (HK\$)	0.91	1.25	1.47	1.80	2.14
Core P/E (x)	25.7	18.7	15.9	13.0	11.0
P/B (x)	6.5	5.6	4.1	3.3	2.8
Dividend yield (%)	1.1	1.5	1.9	2.3	2.7
ROE (%)	21.6	24.9	23.1	23.6	23.5
Net debt / equity (%)	78.9	73.7	63.7	57.0	46.9

Sources: Company data, CMS (HK) estimates

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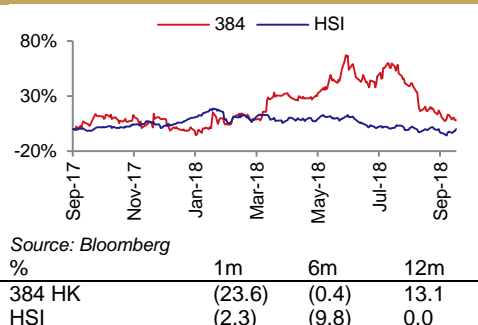
WHAT'S NEW

n.a.

BUY

Previous Rating	BUY
Price (2018/09/21)	HK\$23.4
12-month Target Price (Potential up/downside)	HK\$37.0 (+58%)
Previous Target Price	HK\$37.0

Price Performance



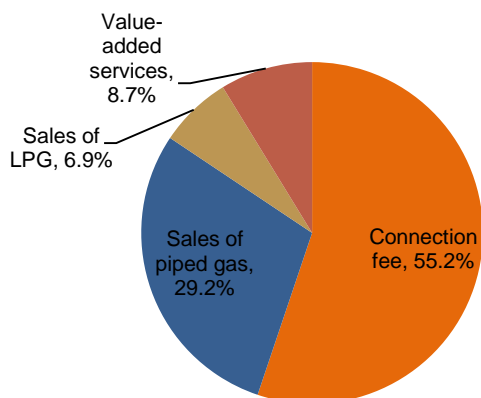
Sector: Oil and Gas	
Hang Seng Index	27,954
HSCEI	11,027
Key Data	
52-week range (HK\$)	20.5-36.7
Market cap (HK\$ mn)	118,395
Avg. daily volume (mn)	8.28
BVPS (HK\$) (2019E)	5.73
Shareholding Structure	
Beijing Enterprises Group	24.4%
China Gas Group Ltd.	14.9%
SK E&S Co. Ltd.	13.9%
Capital Group Companies Inc.	7.4%
No. of shares outstanding (mn)	5,081
Free float (mn)	1,749

Related Research

1. China Gas (384 HK) – Strategically positioned in Shandong province 2018/08/28
2. China Gas (384 HK) - Post FY18 results Shanghai and Taiwan NDR takeaways 2018/07/10
3. China Gas (384 HK) - Stellar FY18 results and promising outlook 2018/06/24
4. Gas sector - Positive outlook 2018/05/25
5. China Gas (384 HK) - Key takeaways from Shanghai NDR 2018/04/18

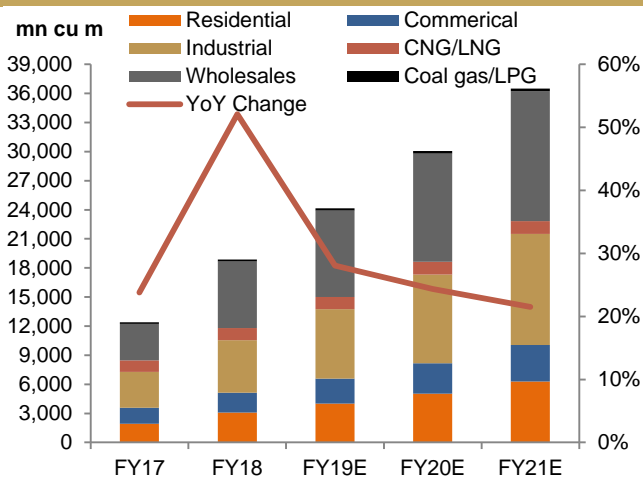
Focus charts

Figure 1: China Gas – FY18 operating profit mix



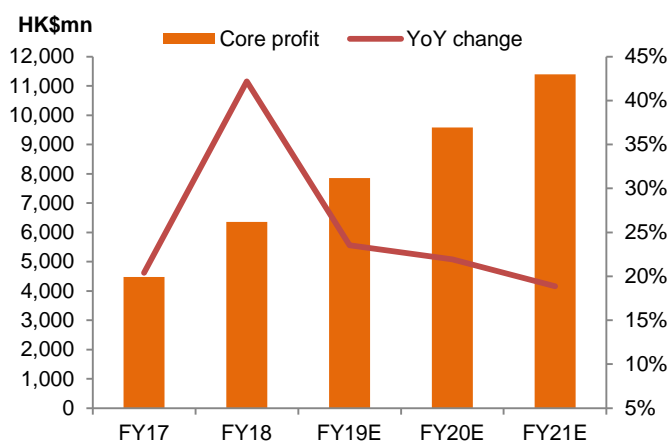
Sources: Company data, CMS (HK)

Figure 2: China Gas – Piped gas sales volume



Sources: Company data, CMS (HK) estimates

Figure 3: China Gas – Core profit forecasts



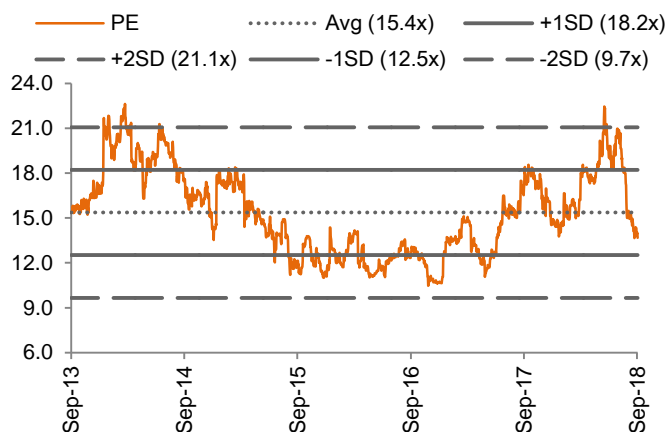
Sources: Company data, CMS (HK) estimates

Figure 4: China Gas – mgmt. guidance

Segment	FY19	FY20	FY21
City gas sales vol. growth	+25% p.a.		
Wholesale gas sales vol. growth	At double-digit %		
Annual residential connections (mn households)	4.7	5.5	6.3
Sale tonnage of LPG (mn tonnes)	4.5	5.0	6.0
Gross profit of value-added service	40%-50% p.a.		

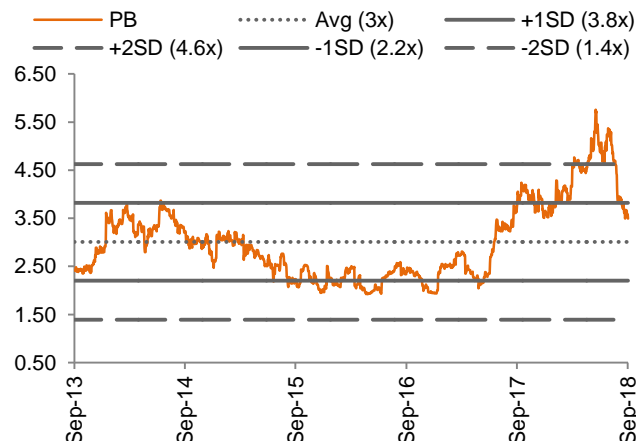
Sources: Company data, CMS (HK)

Figure 5: China Gas –12-month blended forward P/E



Sources: Bloomberg, CMS (HK) estimates

Figure 6: China Gas –12-month blended forward P/B



Sources: Bloomberg, CMS (HK) estimates

China Gas's reverse roadshow takeaways

We attended China Gas's reverse roadshow on 19-20 Sep 2018 to visit its coal-to-gas conversion projects and distributed energy projects in Qingdao, which are operated by its JV – Taineng Natural Gas Co. Ltd (51% owned by China Gas, 25% by local government and 24% by CR Gas (1193 HK, NEUTRAL, TP: HK\$35.7). Key takeaways:

Coal-to-Gas conversion projects

Rural household coal-to-Gas conversion projects

We visited two rural household coal-to-gas conversion projects located in Zhang Chun Henan and Xidengying. Projects Zhang Chun Henan and Xidengying were connected last year with government subsidies of RMB4,000 for connection fee and RMB3,000 for wall-hung gas heater. During the last winter season (~150 days), rural households consumed around 5-7cu m/day vs 0.5cu m/day in the rest of the year. So, around 850-1,150cu m of gas is needed for rural households per annum, implying a full year gas bill of RMB2,465-3,424 (please refer to the gas tier pricing for households in Qingdao below for reference). Rural households need to prepay the gas bill and then claim the RMB1.67/cu m of gas subsidy, which is capped at RMB2,000/year, with the government for the first three years. So, the actual gas bill for the rural households is RMB1,046-1,504/year. Rural households comment that they will continue to use natural gas after government's subsidy expires due to the convenience and safety. China Gas can earn a gas dollar margin of RMB0.68/cu m for rural gas projects assuming the majority gas is sold at first tier pricing. With more than >5mn rural residents contracts on hand, management is confident to meet its rural connection rollout guidance of 2.0-3.6mn households in FY19-21.

Figure 7: Gas tier pricing for households in Qingdao

	Residential households' gas usage volume (cu m/year)	
	Non-heating	For heating
Tier 1 - Rmb2.9/cu m	≤216	≤1,016
Tier 2 - RMB3.48/ cu m	>216 and ≤336	>1,016 and ≤1,136
Tier 3 - RMB4.35/ cu m	>336	>1,136

Source: Company, CMS (HK)

Figure 8: China Gas – Rural connection project in Qingdao (1)



Sources: CMS (HK)

Figure 9: China Gas – Rural connection project in Qingdao (2)



Sources: CMS (HK)

Industrial user – Tsingtao Brewery coal-to-Gas conversion project

China Gas converted Tsingtao Brewery Plant II's 40 steam tons of coal boilers to gas boilers in Jul 2017. The government subsidized the boilers by RMB200k/steam ton, covering around 40% of the investment. 14.6mn cu m of gas is consumed per year to generate 250k tons of steam for the brewery process. Despite the steam costs increased from RMB86/steam ton to RMB240/steam ton after the conversion, it only accounted for 3% of total beer production costs. Thus, the financial impact is limited for Tsingtao Brewery. China Gas can get a dollar margin of RMB0.89/cu m for the project.

Figure 10: China Gas – Tsingtao Brewery coal-to-gas conversion project (1)



Sources: CMS (HK)

Figure 11: China Gas – Tsingtao Brewery coal-to-gas conversion project (2)



Sources: CMS (HK)

Distributed energy projects

China Gas's distributed energy projects mainly cover three key areas, including 1) distributed energy for commercial and industrial buildings; 2) distributed energy for industrial zone and 3) distributed heating. The company plans to operate 100 projects in FY22 vs 44 in FY18. The heating areas will then be grown from 8mn sqm in FY18 to 100mn sqm in FY22 and 7bnkWh of electricity and 2.6bn cu m of gas demand will be generated. Management estimates that excluding the profit from gas sales, the project IRR of distributed energy projects is 10-13% on average. Management also forecasts that net profit contributed by its distributed energy projects will edge up to RMB1.8bn in FY22 from RMB32.4mn in FY18.

Distributed energy for commercial and industrial buildings

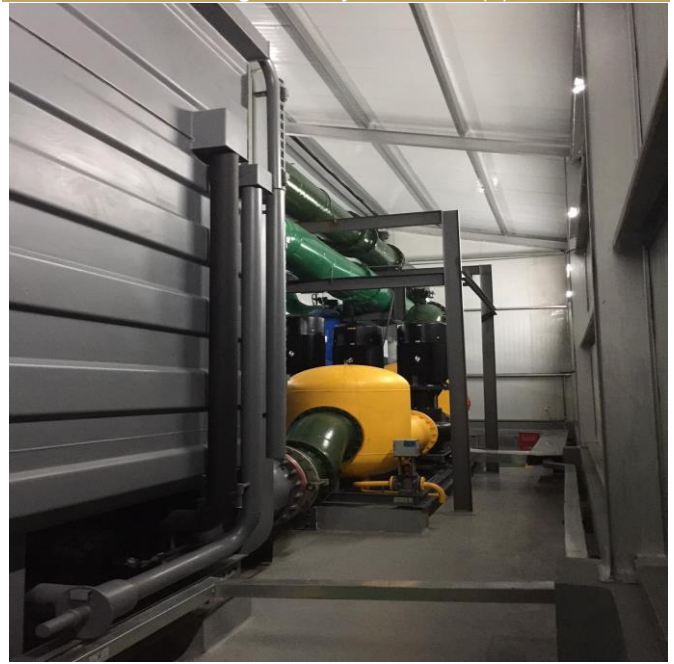
More than 10 projects (mainly targeting hospital buildings, hotels and commercial buildings) have been operated or under construction in Chongqing, Xian, Xinyang, Baoji, Yiyang and Guyuan. China Gas plans to operate 60 pilot projects, covering >60 cities in the next five years. During the trip, we visited the company's Qingdao Zuoyue project. Qingdao Zuoyue Center is a grade 5A commercial office building located in the prime area. It is composed of four towers with a total floor area of 270k sqm. China Gas is responsible for providing heat and cool to the buildings. The company has invested RMB77.4mn to install 2 units of Board XII Non-Electric Chillers, 4 towers of heat exchange stations and intelligent air control systems. The company received a subsidy of RMB40mn from the government. The current utilization rate is 45% and will ramp up to 80% once the Tower I commence operation in this winter. The company is charging RMB45/sqm for heating and RMB45/sqm for cooling each year, leading to a revenue of RMB10.8mn based on the floor area of 120k sqm.

Figure 12: China Gas – Distributed energy project for commercial buildings – Zuoyue Center (1)



Sources: CMS (HK)

Figure 13: China Gas – Distributed energy project for commercial buildings – Zuoyue Center (2)



Sources: CMS (HK)

Figure 14: China Gas – Distributed energy project for commercial buildings – Zuoyue Center (3)



Sources: CMS (HK)

Figure 15: China Gas – Distributed energy project for commercial buildings – Zuoyue Center (4)



Sources: CMS (HK)

Distributed energy for industrial zone

China Gas has been operating and constructing distributed energy for industrial zones in Nanjing, Yangzhou, Taixing, Yangzhong, Fuzhou and Zhangzhou. The company would carefully select the projects after the following criteria are met; 1) the industrial users, e.g. pharmaceutical enterprises, electric vehicles, and food and beverage have strong demand for heat; 2) local government has environmental policy to prohibit the usage of coal and has a strong enforcement; and 3) the related infrastructure, e.g. gas pipelines, grid network, and water network, has been well-established. The company targets to incubate 40 projects in the next five years.

Distributed heating projects

China Gas currently operates 25 distributed heating projects in Shenyang, Dalian, Liaoyang, Hohhot and Baotou to provide heating for 8mn sqm of floor area. Management eyes on a big distributed heating market; the newly built residential buildings will reach 30mn sqm each year in its concessions in Northern China. Using its Shenyang project as an example, the payback period is short at 3.1 years based on the installation fee of RMB50/sqm and heating fee of RMB26/sqm for residential households and RMB32/sqm for non-residential households and a heating floor area of 72.9ksqm. The company targets to foray into the distributed heating market and grow the heating area to 100mn sqm in next five years.

Maintain BUY and TP at HK\$37.0

Shares are trading at 13.0x FY20E P/E, 16% discount to its five-year historical trading average of 15.4x. With a recurrent EPS CAGR of 20% over 2018-20E, vs its peers' 14.5-15.4x 2019E P/E and recurrent EPS CAGR of 13-15% during the same period, valuation looks attractive. We recommend shareholders to accumulate shares during the recent weakness. We maintain our BUY and TP at HK\$37.0.

Key downside risks

The key downside risks are: 1) higher-than-expected execution risk for the rural connection; 2) lower-than-expected gas demand; and 3) failing to pass through the increased gas costs to end-users during the winter season.

Financial Summary

Balance Sheet

Year ended 31 Mar (HK\$m)	2017	2018	2019E	2020E	2021E
Fixed assets	25,879	34,088	42,924	51,454	58,548
Associates & JCE	9,578	12,348	14,047	15,901	17,585
Goodwill & intangibles	6,444	6,983	7,105	7,137	6,980
Deferred tax assets	161	224	231	235	233
Others	2,797	3,537	3,508	3,442	3,297
Non-current assets	44,859	57,181	67,815	78,169	86,644
Inventories	1,679	3,069	3,945	4,859	5,865
Trade & bills receivables	6,067	9,019	11,861	14,665	17,860
Prepayments & others	50	63	(201)	(205)	(203)
Cash	4,725	8,246	5,960	4,220	5,158
Others	2,842	4,479	5,267	5,698	6,259
Current assets	15,363	24,877	26,832	29,237	34,938
Total assets	60,222	82,058	94,647	107,406	121,582
Trade & bills payables	5,660	8,202	10,680	13,462	16,713
Accruals & other payables	3,990	5,843	7,344	9,370	11,714
Tax payable	512	944	1,118	1,305	1,496
Bank loans	10,873	11,079	11,079	11,079	11,079
Others	1,544	1,034	829	672	545
Current liabilities	22,579	27,102	31,051	35,887	41,548
Bank loans	12,745	21,293	21,293	21,293	21,293
Deferred tax liabilities	951	933	866	793	707
Non-current liabilities	13,696	22,226	22,159	22,086	22,000
Total liabilities	36,275	49,328	53,210	57,973	63,548
Total net assets	23,947	32,730	41,438	49,432	58,034
Share capital	50	50	52	53	53
Reserves	20,501	28,406	36,806	44,427	52,585
Shareholder's equity	20,550	28,456	36,858	44,480	52,638
Minority interests	3,396	4,274	4,580	4,952	5,396
Total equity	23,947	32,730	41,438	49,432	58,034

Cashflow Statement

Year ended 31 Mar (HK\$m)	2017	2018	2019E	2020E	2021E
Operating profit	5,584	7,855	9,695	11,832	14,180
Dep. & amort.	960	1,179	1,539	1,893	2,194
Chg in working cap	(1,473)	(874)	220	1,077	1,401
Others	148	(1,854)	(2,817)	(2,090)	(427)
Tax paid	(1,102)	(1,763)	(2,177)	(2,653)	(3,185)
Net cash from operations	4,116	4,543	6,461	10,058	14,163
Capex	(2,639)	(6,500)	(9,000)	(9,180)	(9,364)
Others	(1,473)	(120)	337	312	303
Net cash from investments	(4,112)	(6,620)	(8,663)	(8,868)	(9,061)
Issue/ buyback of shares	(539)	0	3,200	914	183
Dividends paid	(954)	(1,242)	(1,909)	(2,358)	(2,875)
Net change in debt	1,430	8,754	0	0	0
Others	(458)	(1,913)	(1,376)	(1,485)	(1,472)
Net cash from financing	(520)	5,598	(85)	(2,930)	(4,164)
Net change in cash	(516)	3,522	(2,286)	(1,740)	938
Adjustments	(256)	0	0	0	0
Opening cash	5,497	4,725	8,246	5,960	4,220
Closing cash	4,725	8,246	5,960	4,220	5,158

Sources: Company data, CMS (HK) estimates

Profit & Loss Statement

Year ended 31 Mar (HK\$m)	2017	2018	2019E	2020E	2021E
Turnover	31,993	52,832	68,219	84,944	103,687
COGS	(23,616)	(41,161)	(53,622)	(66,954)	(81,948)
Gross profit	8,377	11,671	14,597	17,990	21,738
Selling & distribution	(1,229)	(1,616)	(2,035)	(2,584)	(3,218)
Admin	(1,675)	(1,988)	(2,612)	(3,317)	(4,089)
Other opex	112	(212)	(255)	(257)	(252)
Total opex	(2,793)	(3,816)	(4,902)	(6,158)	(7,559)
Operating profit	5,584	7,855	9,695	11,832	14,180
Other income / (exp)	46	143	224	560	509
Finance costs	(632)	(654)	(819)	(933)	(936)
JCE and associates' income	904	1,255	1,553	1,896	2,160
Pre-tax profit	5,902	8,600	10,653	13,354	15,913
Tax	(1,208)	(1,931)	(2,384)	(2,906)	(3,488)
Profit after tax	4,695	6,669	8,269	10,448	12,424
Minority interest	(547)	(574)	(709)	(864)	(1,031)
Net profit	4,148	6,095	7,560	9,584	11,393
Non-core items adj.	327	267	300	0	0
Core profit	4,475	6,362	7,860	9,584	11,393
EBITDA	6,544	9,034	11,235	13,724	16,373
Basic EPS	0.85	1.23	1.45	1.81	2.14
Fully diluted core EPS (HK\$)	0.91	1.25	1.47	1.80	2.14
DPS (HK\$)	0.25	0.35	0.45	0.54	0.64

Financial Ratios

	2017	2018	2019E	2020E	2021E
YoY growth rate (%)					
Turnover	8.5	65.1	29.1	24.5	22.1
EBITDA	16.9	38.1	24.4	22.2	19.3
Operating profit	19.2	40.7	23.4	22.0	19.8
Core profit	20.4	42.2	23.5	21.9	18.9
Fully diluted core EPS	21.8	37.4	17.6	21.9	18.9
DPS	28.5	40.0	28.9	20.2	18.6
Margins (%)					
Gross margin	26.2	22.1	21.4	21.2	21.0
EBITDA margin	20.5	17.1	16.5	16.2	15.8
EBIT margin	17.5	14.9	14.2	13.9	13.7
Net margin (Core profit)	14.0	12.0	11.5	11.3	11.0
Effective tax rate (%)	24.2	26.3	26.2	25.4	25.4
Total opex as % of rev	8.7	7.2	7.2	7.2	7.3
Interest coverage (x)	8.8	12.0	11.8	12.7	15.2
Dividend payout (%)	27.8	30.0	30.0	30.0	30.0
Net debt/equity (%)	78.9	73.7	63.7	57.0	46.9
Net debt/total cap (%)	44.1	42.4	38.9	36.3	31.9
Current ratio (x)	0.7	0.9	0.9	0.8	0.8
Returns (%)					
Asset turnover (x)	0.6	0.7	0.8	0.8	0.9
Financial leverage (x)	3.0	2.9	2.7	2.5	2.4
EBIT margin (%)	20.4	17.5	16.8	16.8	16.2
Interest burden (x)	0.9	0.9	0.9	0.9	0.9
Tax burden (x)	0.7	0.7	0.7	0.7	0.7
ROE (%)	21.6	24.9	23.1	23.6	23.5
ROIC (%)	12.8	14.3	14.2	15.3	16.4

Investment Ratings

Industry Rating	Definition
OVERWEIGHT	Expect sector to outperform the market over the next 12 months
NEUTRAL	Expect sector to perform in-line with the market over the next 12 months
UNDERWEIGHT	Expect sector to underperform the market over the next 12 months

Company Rating	Definition
BUY	Expect stock to generate 10%+ return over the next 12 months
NEUTRAL	Expect stock to generate +10% to -10% over the next 12 months
SELL	Expect stock to generate loss of 10%+ over the next 12 months

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