

MITA No. 013/06/2008

19 March 2009

# S'pore Petroleum Co Ltd

Initiating Coverage

## HOLD

### S\$2.50

### Fair Value: S\$2.45

Stock Code: SPCS.SI  
 Reuters: S99  
 ISIN Code: SPC SP  
 Bloomberg: SPC SP

Event: Initiate Coverage

#### General Data

Issued Capital (m)	516
Mkt Cap (S\$m/US\$m)	1,291/853
Major Shareholder	Keppel Corp (45.4%)
Free Float (%)	54.0%
NTA per share (S cents)	303.0
Daily Vol 3-mth ('000)	1,716
52Wk High (S\$)	8.250
52Wk Low (S\$)	1.770

## Holds promise for the longer term

**Established home-grown refiner.** Formed in 1969, Singapore Petroleum Company Ltd (SPC) is the only independent oil refiner in Singapore. The group has grown over the years to become an international oil refiner and trader and engages in oil and gas exploration, refining, terminalling and distribution, marketing and trading of crude and refined petroleum products. In FY08, SPC achieved a 26.9% YoY rise in revenue to S\$11.1b but incurred a 55.5% fall in net profit to S\$229.2m, mainly due to volatile refining margins and inventory write-down due to lower oil prices in 2H08.

**At the mercy of volatile refining margins.** Being an oil refiner, SPC is greatly affected by swings in refining margins which arise from the interplay of demand and supply for crude oil and refined products. Margins can go into negative territory, as 4Q08 and previous oil shocks have shown. It is beyond SPC's control when that happens, and inventory write-downs have to be taken when crude oil prices fall drastically. However, assuming that oil prices will not fall much further given last year's dramatic drop, the likelihood of another extensive inventory write-down is low. Finally, with Singapore being a swing centre, refineries in Singapore may feel the effects of low product demand even more.

**Upstream growth as a form of diversification.** SPC ventured into upstream operations in 2000 and has three producing assets out of its portfolio of nine assets. Upstream production is a natural hedge against its exposure to downstream refining and marketing, and assuming that crude oil prices maintain above breakeven levels in this current dismal environment, this would ensure more steady and sustainable earnings for the group.

**Initiate with HOLD.** We initiate coverage on SPC with a **HOLD** recommendation and fair value estimate of S\$2.45 using sum of the parts valuation. The refining business is valued using 8x FY09F PER, lower than the regional average considering the refinery's lower complexity rating and taking into account that earnings may be relatively more affected in swing-centre Singapore. The E&P business is valued using 7X FY09F PER, similar to the regional average. We will turn buyers of the stock around S\$2.20, barring a sudden deterioration in economic environment. Any oil discoveries may be a potential share price catalyst, but the general outlook for the group and the industry is muted for now.

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Year to 31 Dec	Turnover (S\$m)	EBIT (S\$m)	Net Profit (S\$m)	EPS (cents)	EPS Growth (%)	PER (x)	Div Yield (%)
FY 07	8,766.7	578.5	514.7	100.0	80.8	2.5	24.0
FY 08	11,123.7	314.3	229.7	44.7	-55.3	5.6	11.2
FY 09F	6,170.4	229.0	166.6	32.3	-27.7	7.7	5.2
FY 10F	7,539.5	276.9	203.8	39.5	22.4	6.3	5.2

Please refer to the important disclosures at the back of this document.

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## Section A: Investment case

### I. Background in brief

Established in 1969 and listed on the SGX in 1990, Singapore Petroleum Company Ltd (SPC) is a regional oil and gas company with businesses in oil and gas exploration, refining, terminalling and distribution, marketing and trading of crude and refined petroleum products. It is an associated company of Keppel Oil & Gas Services Pte Ltd, which is a wholly-owned subsidiary of Keppel Corporation Ltd.

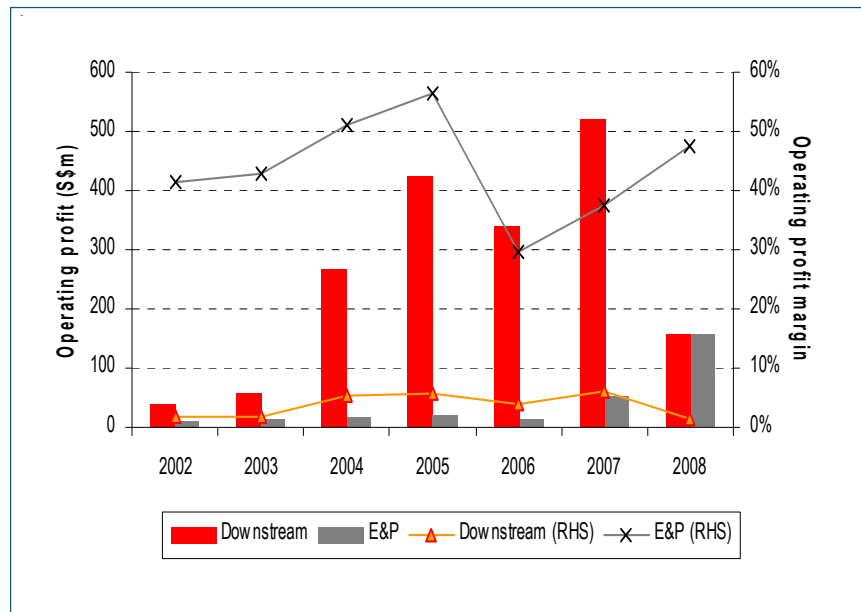
SPC's headquarters are in Singapore and its presence in Asia-Pacific includes China, Hong Kong, Thailand, Vietnam, Cambodia, Malaysia, Indonesia and Australia. The group ventured into the upstream business in 2000 but downstream operations still remain the main revenue generator. SPC is the only oil refiner listed on the SGX.

### II. Investment highlights

**Established home-grown oil refiner.** SPC, 45% owned by Keppel Corporation, is the only independent oil refiner in Singapore as it is not affiliated to any of the major international oil companies. The group has grown over the years to become an international oil refiner and trader and its venture into upstream operations are paying off with the segment accounting about 50% of FY08's operating profit. With an established history, SPC has weathered the various oil price shocks (Yom Kippur war of the '70s, Iranian revolution of the '80s and Iraqi invasion of Kuwait in the '90s) and emerged stronger.

**Upstream integration.** SPC has grown its E&P portfolio to nine assets with all of them in the Asia-Pacific region. With eight Production Sharing Contracts (PSCs) and one exploration permit and three gas pipelines, SPC's Exploration and Production (E&P) footprint extends across five countries. This strategic move allows SPC to diversify its operations and has paid off well considering that refining margins have been increasingly volatile recently, falling from US\$10/barrel in 1H08 to US\$1/barrel in 2H08. In 4Q08, margins even went into negative territory at -US\$2/barrel. Exhibit 1 shows that upstream operations contributed about the same amount of operating profit as the downstream business in FY08.

Exhibit 1: Operating profit breakdown



Source: Company, OIR

**Strong balance sheet especially desirable now.** SPC has a cash pile of S\$319.5m and S\$574.1m in borrowings, and is relatively less geared compared to its peers in Asia. Given the current credit and economic crisis that we are in, this is especially desirable as potential investors do not wish to worry about the group's ability to continue as a going concern. The group has a debt-to-equity ratio of 0.34, much lower than the regional average of 0.65 (Exhibit 2). The group's net debt-to-equity ratio is 0.15.

## Exhibit 2: Balance sheets of comparables

Company	Price		Market Cap	Debt/Equity
	Local currency		L currency (bil)	(x)
<b>Regional refiners</b>				
Bangchak Petroleum	THB	8.3	9.3	0.81
Bharat Petroleum	Rupee	340.0	122.9	1.17
Caltex Australia	AUD	9.3	2.5	0.33
Esso Thailand	THB	3.8	13.2	1.37
GS Holdings	Won	27,050	2,513	0.15
Indian Oil Corp	Rupee	391.0	466.2	0.85
PTT Aromatics & Refining	THB	8.8	25.9	1.35
S- Oil	Won	55,500	6,248	0.74
Thai Oil	THB	26.3	53.6	0.79
<b>Average</b>				<b>0.84</b>
<b>Regional E&amp;P companies</b>				
CNOOC	HKD	7.4	328.3	0.08
Oil and Natural Gas Corp	Rupee	721.8	1,543.8	0.01
Petrovietnam	Dong	59,000.0	7,797.9	1.47
<b>Average</b>				<b>0.52</b>
<b>Regional Integrated companies</b>				
Petronas	RM	7.4	7.3	0.00
PTT Public	THB	148.0	418.0	0.58
Reliance Industries	Rupee	1,335.0	2,101.0	0.57
Sinopec	HKD	4.2	738.3	0.47
SK Energy	Won	82,200	7,601	1.34
<b>Average</b>				<b>0.59</b>
<b>Total average</b>				<b>0.65</b>
<b>Singapore Petroleum Co</b>	<b>SGD</b>	<b>2.50</b>	<b>1.3</b>	<b>0.34</b>

Source: Bloomberg, Company, OIR. Updated 18 Mar 09

**Higher middle distillate yield and less on light ends.** SPC's middle distillate refining yield is about 50% or more, whereas light ends take up about 25% per barrel yield. This means that SPC produces more middle distillates and less light ends compared to the average barrel refined in other refineries. As margins for middle distillates are generally higher, SPC enjoys greater returns per barrel refined. Less exposure to the light ends, especially the petrochemical sector now, means SPC is less affected by the current downturn in petrochemicals compared to other refineries that rely more on the sector.

**Exhibit 3: Per barrel yield of SPC and the general oil barrel**

	Component	SPC yield*	Average yield**
Light ends	Mogas	12-15%	35%
	Naphtha	10-12%	
Middle distillates	Jet-kerosene	20-23%	35%
	Diesel	25-28%	
Residual & LPG	Fuel oil	15-20%	30%
	Others	5%	

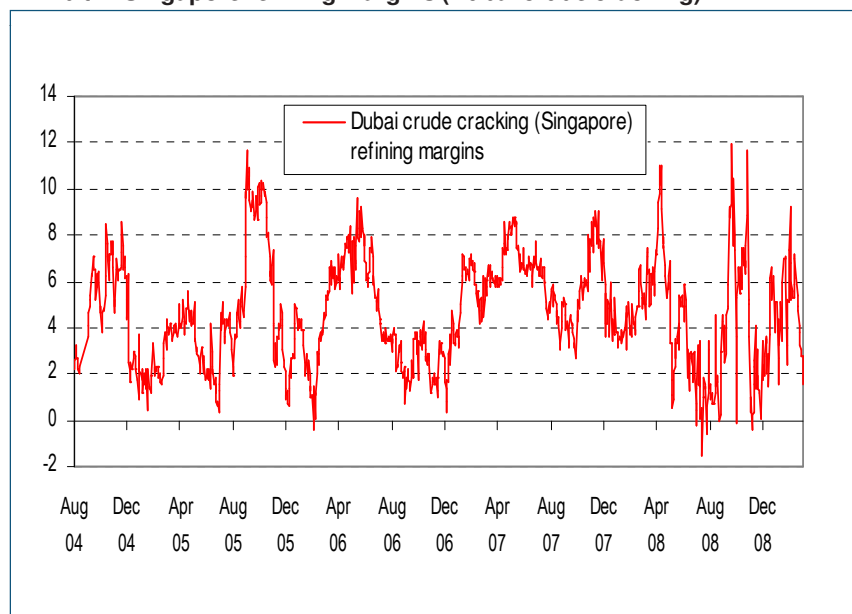
\*Varies with crude  
\*\*From Bloomberg

Source: Company, Bloomberg

**III. Risks**

**Volatile refining margins.** Refining margins are subject to volatility of crude and product prices which may not move in tandem. They are a result of market outcome and are not determined by refiners on a "cost-plus" basis. In the event that demand and supply forces result in low or even negative margins, SPC, along with other refineries, will have to accept the negative effects of lower margins. For instance, 2001-2002 were two of the most difficult years for the refining industry in Asia-Pacific as substantial additions to refining capacity took place between 1995-2001. However, oil demand growth did not keep up with the capacity increase, leading to an overhang and negative refining margins. Singapore refining margins have been increasingly volatile especially in the past year (Exhibit 4).

Exhibit 4: Singapore refining margins (Dubai crude cracking)



Source: Bloomberg

**New refining capacity coming up.** In relation to the earlier point, new refining capacity is slated to come up this year with the most coming from China and India. Reliance Industries' new Jamnagar refinery has started production, and with other new refineries commencing production this year (main ones listed in Exhibit 5), Asia-Pacific may expect at least 1.3mbpd in new refining capacity, not counting for refinery creep (which is the expansion and upgrading of existing refineries). Refining margins may remain weak with the greater supply, and assuming that demand does not increase proportionately, there may be even downward pressure on margins.

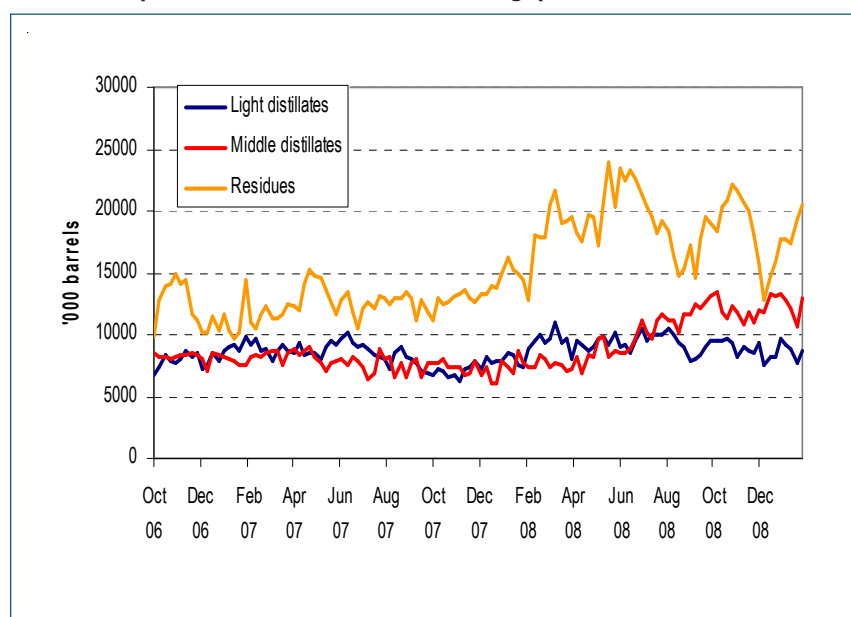
Exhibit 5: Key additions to refining capacities this year

Company	Commencement date	Location	Capacity (bpd)	Investment
CNOOC	1Q09	Huizhou, Guangdong, China	240,000	RMB20b
Sinopec, Exxon, Aramco	1Q09	Fujian, China	240,000	US\$5b
PetroChina, Dushanzi Petrochemical	4Q09	Dushanzi, Xinjiang, China	200,000	US\$4b
Reliance Industries	1Q09	Jamnagar, India	580,000	US\$6b

Source: Bloomberg, news dailies, OIR

**Slowdown in refined product demand.** With the global economic downturn, demand for refined products have fallen as well. Inventories of middle distillates in Singapore have been trending up since May 08, while residual oil inventories have spiked up since end of last year (Exhibit 6). The slowdown in demand has led to lower product prices, and if products originally meant for Europe and the US face weaker demand with the deteriorating economies, they may be routed to Asia-Pacific instead which may then see a larger surplus in supply.

**Exhibit 6: Upward trend of inventories in Singapore**



Source: IE Singapore, OIR

**Foreign exchange fluctuations.** Considering that about 97% and 89% of SPC's trade receivables and payables were denominated in US dollars, it can be argued that to some extent there is a natural hedge against currency fluctuations. The group reports its financial results in SGD whereas being an oil and gas company, most financial transactions are handled in USD. Accentuated foreign exchange fluctuations may affect the group's presented results. A sensitivity analysis shows that a 1% change in the exchange rate may lead to a 1.1% change in earnings.

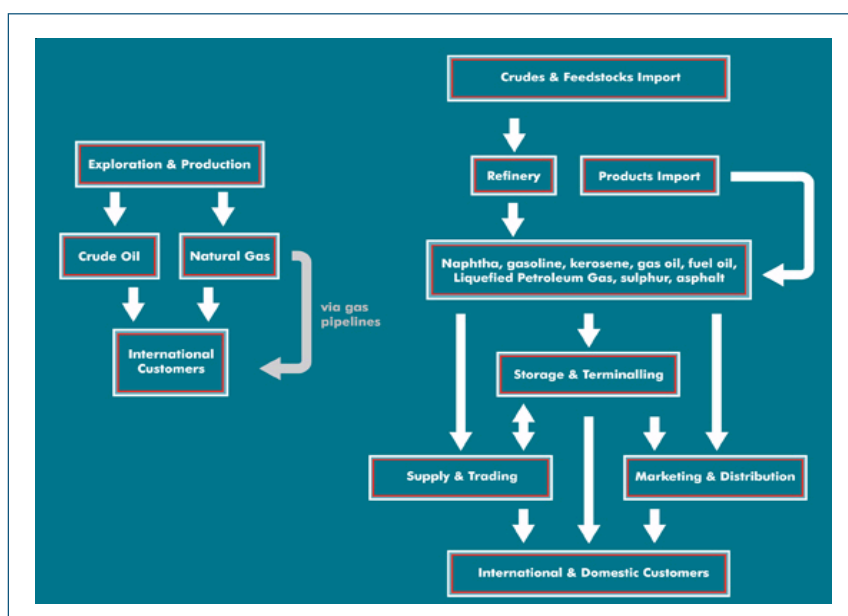
**Slip ups in day-to-day operations.** E&P and refining activities involve a certain amount of risk as accidents can negatively impact SPC's earnings. For instance, the group's net profit was affected by a tank fire in the Singapore Refining Company (SRC) in 1988 which destroyed three naphtha tanks. Apart from the loss of profits, the irrecoverable direct loss was estimated at about S\$2.4m. However, according to management, there has not been a similar accident ever since and regular third-party audits and other Health, Safety, Environment, Quality (HSEQ) assurance reviews are conducted to ensure continued safe operations.

## Section B: Company analysis

### I. Business overview

The group ventured into upstream operations in 2000 and this segment is increasingly important to SPC. Downstream operations commenced in the early 1970s and accounts for about 97% of total revenue in both FY07 and FY08. However, it contributed 91% to operating profit in FY07 and moderated to 50% in FY08, illustrating the importance of the upstream sector to SPC in the recent year when refining margins were highly volatile.

#### Exhibit 7: Business Flowcharts



Source: Company

### Downstream operations

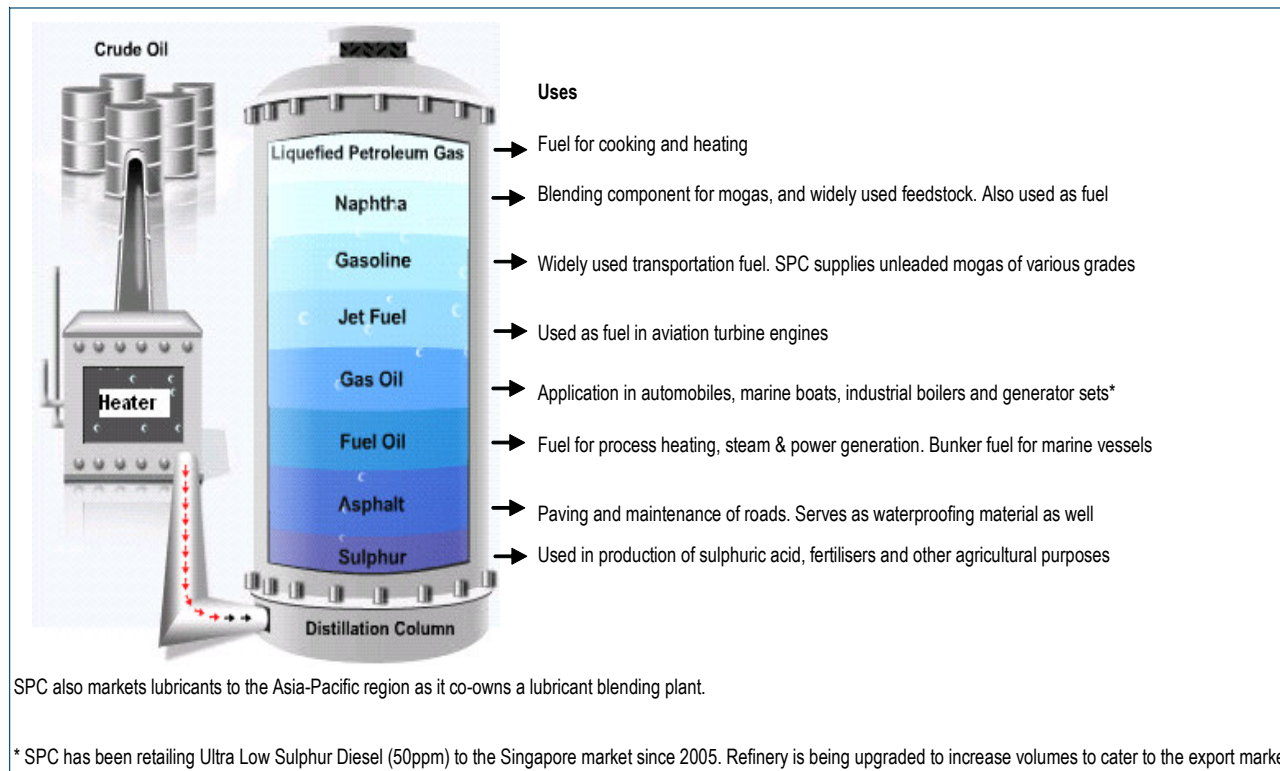
**Downstream operations as the mainstay.** SPC holds a 50% interest in the Singapore Refining Company (SRC) with Chevron being its equal partner. With a nameplate capacity of 290,000 bpd, the group is able to undertake a wide range of downstream operations, including catering to the aviation and bunkering businesses, storage and terminalling, retail, as well as marketing and trading of refined petroleum products. Aviation and bunkering are the main contributors to downstream operations (breakdown not disclosed as with other oil companies) and SPC, having started out in these areas, has a firm foundation in the business. Retail (selling of petrol at stations), is a very competitive business, highlighted by the recent price war at petrol pumps (17 Mar 09, Straits Times).

**Exhibit 8: Summary of downstream businesses**

Downstream segment	Details
Aviation	Provides aviation fuels to international airlines at Changi Airport Markets and supplies jet fuel at other airports - Taoyuan (Taiwan), Hong Kong International, Suvarnabhumi (Thailand) SPC has more than 30 years experience
Bunkering	Provides bunker fuels to shipping lines round-the-clock Has been in the business since 1972, even prior to the start up of the SRC
Storage and terminalling	Pulau Sebarok storage terminal supports marine bunker operations, trading and marketing activities 220,000 cubic-metre terminal has 13 storage tanks and has both a deepwater and smaller jetty
Retail	Operates third-largest retail service stations worldwide (38 petrol stations) Profit margins are lean compared to other business segments due to competition
Products	Trades and markets petroleum products to commercial, industrial, wholesale customers Also known for its lubricant products with a co-owned lubricant blending plant

Source: Company data, OIR

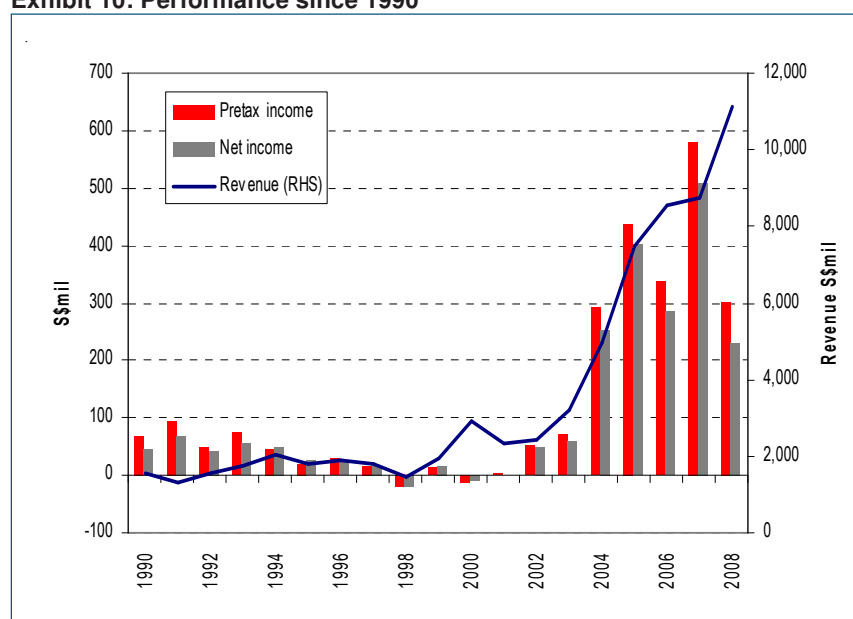
**Exhibit 9: Products of SPC**



Source: Company data, OIR

**Losses in previous economic crises.** Exhibit 10 gives a historical perspective of the profitability of SPC since 1990. Due to the rapid economic growth in Asia in the early 1990s, refining margins were sufficient to justify expansion of refinery capacities. The Asian Financial Crisis in 1997 led to a sharp decline in oil demand with a subsequent overhang of excess capacity, resulting in poor refining margins. This was exacerbated by the global economic slowdown in 2000, September 11 attacks, and the Iraq war. This meant that few new refineries were built, and when the economy picked up, SPC was able to enjoy better margins again, reflected by the growth in net profit in the latter part of Exhibit 10.

**Exhibit 10: Performance since 1990**



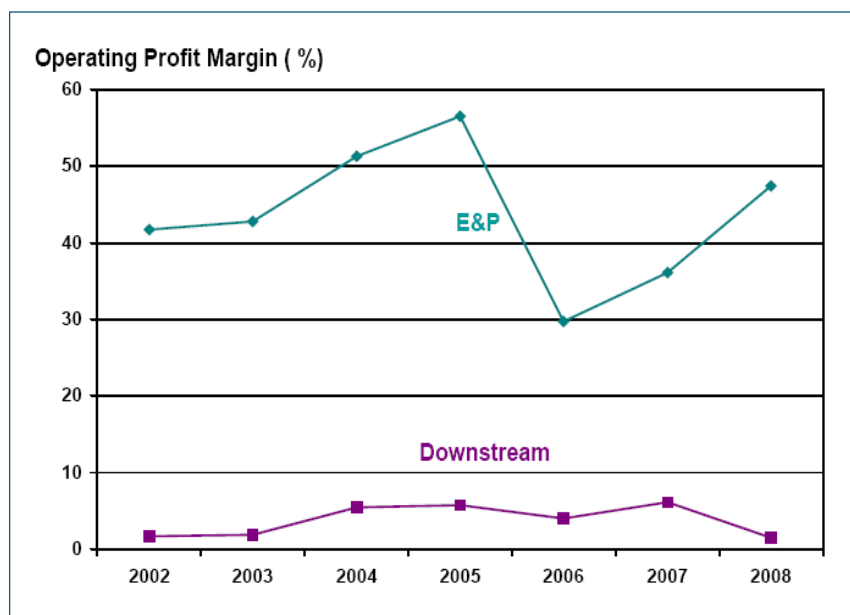
Source: Bloomberg, OIR

**How about the future?** Negative refining margins (-US\$2/barrel) in 4Q08 showed that the group is affected by the current economic crisis, and new upcoming refinery capacities mean that margins will continue to face downward pressure, especially since economic recovery is hardly in sight. However unlike the past, SPC now has upstream operations which it intends to grow.

### Upstream operations

**Upstream operations has higher operating margins.** As Exhibit 11 shows, operating profit margins from upstream operations are consistently higher than that of downstream operations. Diversification into the E&P business will also help SPC maintain a certain level of profitability when refining margins are hit. Moreover, being an integrated gas company, SPC may be able to reap synergies from both business segments in the future although we understand that currently SPC generally sells its crude oil to direct to customers instead of refining it into products.

**Exhibit 11: Operating profit margins**



Source: Company

**Grown E&P portfolio to nine assets.** SPC's first foray into the upstream business started with its investment in the Kakap PSC in Jun 2000 in Indonesia. Since then, the group has grown its portfolio to nine assets with three that are currently producing oil. Exhibit 12 shows that the working interest that SPC holds differs for every asset. Of the three producing ones, SPC holds 15% of the Kakap PSC and 40% of the Oyong production, whereas its interest in China's Bohai Bay is less than 25%.

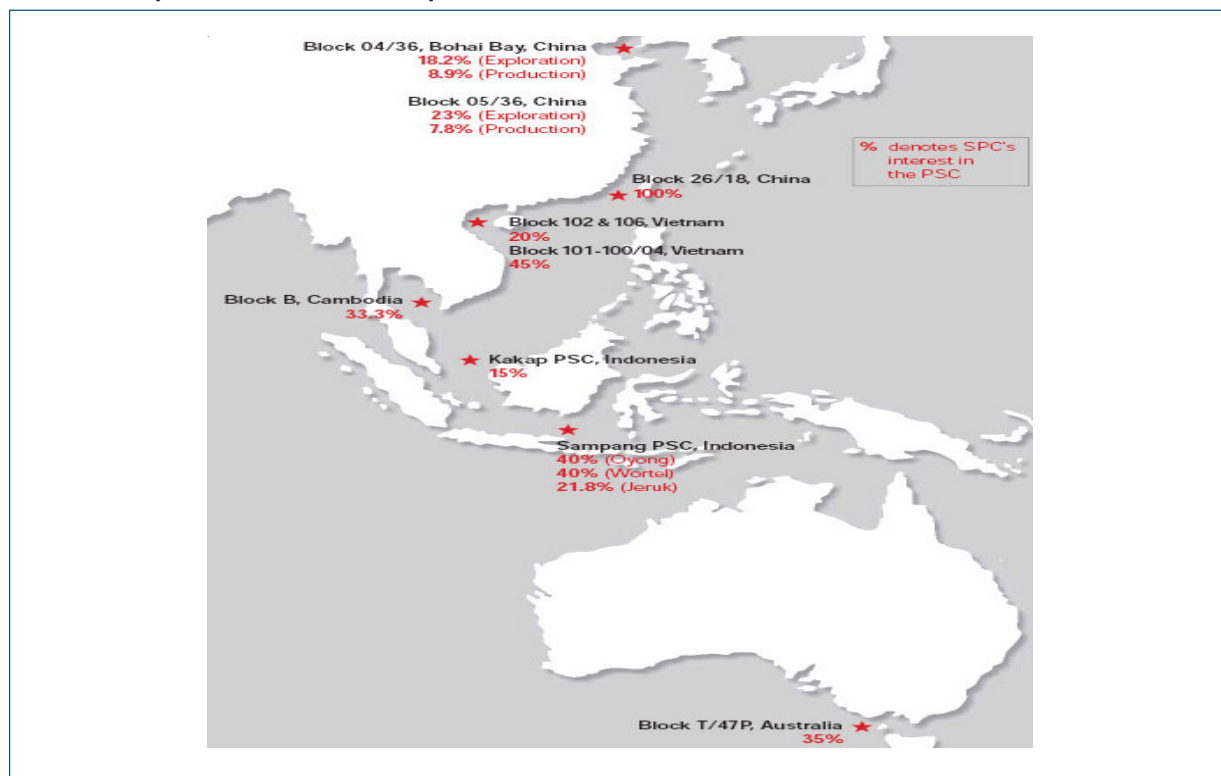
Exhibit 12: Upstream assets

Asset	Location	Acquired	Area km2	Working interest	Operator	Status <sup>1</sup>
East Kalimantan, Mahakam Hilir PSC	Indonesia	Nov-08	344.14	100.0%	SPC	E
Bohai Bay, Block 04/36	China	Oct-07	2,772	18.0%	Anadarko	E, P
Bohai Bay, Block 05/36				23.1%		
Pearl River Mouth Basin, Block 26/18	China	Aug-07	4,961	100.0%	SPC	E
Bass Basin, Block T/47P	Australia	Mar-07	2,890	35.0%	Tap Oil	E
Song Hong Basin, Block 101-100/04	Vietnam	Oct-06	6,174	45.0%	Santos	E
Khmer Basin, Block B	Cambodia	Aug-05	6,560	33.3%	PTTEP	E
Offshore East Java, Sampang PSC	Indonesia	Jul-04	535.5	40.0%	Santos	P
Oyong oil field				40.0%		
Oyong gas field				40.0%		
Jeruk oil field				21.8%		
Song Hong Basin, Blocks 102 and 106	Vietnam	Apr-04	8,560	20.0%	Petronas	E
West Natuna Sea, Kakap PSC	Indonesia	Jun-00	2,006	15.0%	Star Energy	P

<sup>1</sup> E - Exploration, P - Production

Source: Company, OIR

Exhibit 13: Upstream assets on a map



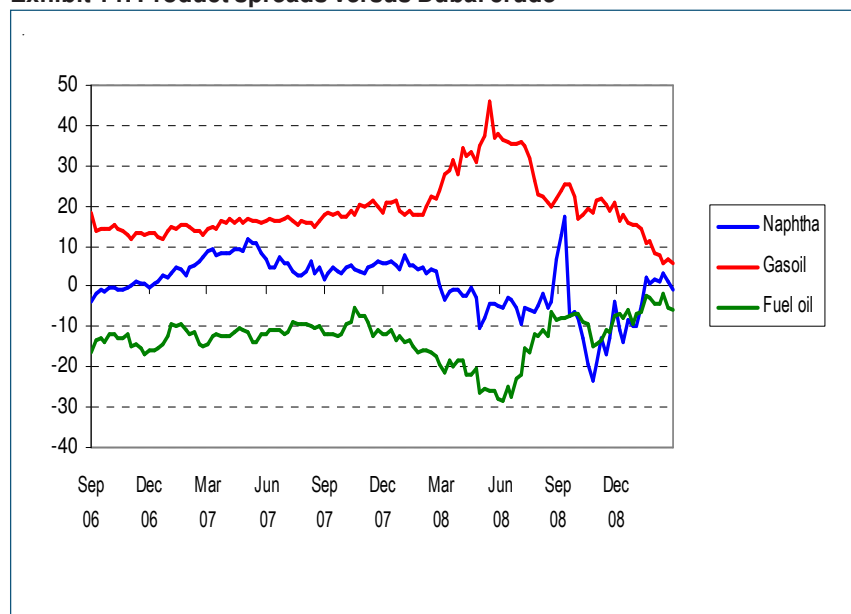
Source: Company

**Lower than expected E&P production in 2008.** The group's average E&P production was about 3,800 boepd in 2007 but the figure went up to 10,840 boepd at the end of 2007 as the commencement of production from the Oyong field and Bohai Bay increased capacity. The target was 11,000 boepd in 2008 but SPC's actual share of production was lower. These numbers reflect SPC's share after taking into account the group's working interest and oil contribution to the host country. Management expects production this year to be stable compared to last year's and we are expecting about 7,000 boepd of production and 8,000 boepd in FY09 and FY10 respectively. Further details regarding the upstream assets are included in the appendix.

## II. Competitive positioning and corporate strategies

**Focus on middle distillates and less on light yields.** As mentioned earlier, margins of middle distillates are generally higher than light ends, however recent data show that spreads may be converging (Exhibit 14). As SPC's middle distillate yield is higher than the average oil barrel yield, it may be able to obtain higher margins as a result, assuming that margin differentials for various products do not converge. However middle distillates have been suffering from weakness in spreads recently as inventories rise.

**Exhibit 14: Product spreads versus Dubai crude**



Source: PVM, Bloomberg

\*Crack spread is the differential between the price of crude oil and petroleum products extracted from it.

**Upgrading refining capabilities and maintaining high utilisation.** SPC launched a S\$121m project for clean diesel production in 2007 which will enable it to meet Euro-IV diesel specifications by this year. The group aims to further upgrade its refining capabilities to process new and other crudes. This is necessary considering that SPC's Nelson complexity index is lower than the average of its regional peers at 5.5 (the Nelson Complexity assigns a complexity factor to a refinery's machinery and measures the value addition potential of the refinery). Refinery utilisation in 2007 was 97% though it was lower last year with the Hydrocracker 2 upgrading with constrained demand in 2H08. However, with the continued weak demand for fuels and higher oil product stockpiles, refinery utilization rates may fall as refiners may not increase production levels significantly even after the maintenance season ends.

**Possibly more upstream acquisitions.** SPC has been acquiring E&P assets such that it has eight PSCs, one exploration permit and three pipelines. With its strong balance sheet and cash pile of S\$320m, it is possible that SPC may acquire additional assets. Indeed the group has mentioned that it wishes to grow its E&P portfolio organically and through acquisitions and is on the lookout for opportunities that may arise from the drastic drop in oil prices, which would mean cheaper acquisitions than before. The group is likely to focus more on assets that are already producing oil rather than those that simply hold promise for oil. For instance SPC may be interested in rigs are operated by owners that find themselves too highly leveraged in this credit crunch. The operators may then be willing to let go of their assets at low prices. Countries that own oil producing assets, however, may be unwilling to let go of their assets at low prices.

**III. SWOT analysis table**

The strengths, weaknesses, opportunities and threats with regards to SPC have been discussed in earlier parts of the report, but just to recap:

**Exhibit 15: SWOT table**

Strengths	Weaknesses
A. Established homegrown oil refiner with good spread of downstream businesses B. Upstream integration C. Strong balance sheet to support E&P acquisitions	A. Profitability still dependent on refining margins which can be very volatile B. Singapore, being a swing centre, may feel the effects of low product demand even more.
Opportunities	Threats
A. E&P acquisitions to build upstream portfolio B. Room to upgrade refinery complexity if desired	A. Upcoming additional refining capacity B. Accidents that involve irrecoverable losses C. Low refined product demand may persist till global economy finally recovers

Source: OIR

## Section C. Industry analysis

### I. Current state of affairs

**Downstream scene in Singapore.** Singapore has a total crude oil refining capacity of about 1.35m bpd. The three refineries are ExxonMobil's mainland and Jurong Island 605,000 bpd facility, Royal Dutch Shell's Pulau Bukom 458,000 bpd complex, and of course SPC's 290,000 bpd refinery. Singapore's strategic location, deep-water berths and well-established infrastructure has turned it into an important oil trading and refining hub and Southeast Asian export-oriented refining centre. As Singapore is more of a "swing" refining centre (i.e. performing the role of adjusting oil supply to cater for product shortages or surpluses due to imbalances), production is especially scaled back during times of low demand therefore incurring lower margins. In this respect, ExxonMobil's and Shell's move into petrochemicals in Singapore is aimed to bolster product offerings for increased diversification since a downturn in certain distillates may be cushioned by better performance in other products. SPC has historically low petrochemical exposure. Instead, it is developing its upstream capabilities to diversify its operations.

**Downstream scene in the region.** According to the Oil & Gas Journal (15 Dec 08), Asia's petroleum demand is about 24.1m bpd. This is taken up primarily by China, Japan, India and S. Korea (in that order). New refineries (such as three Chinese refineries with capacity 200,000bpd each) commenced operations in the past year, and were planned in advance due to expectations of higher refining margins. However, with the sudden deterioration in the economic environment, some refineries delayed commencement but subsequently had to begin operations nonetheless.

**Upstream scene in Singapore and the region.** Among the companies listed in SGX, SPC, KS Energy, and Ramba Energy are among the few companies that engage in upstream activities. Major players in the region include Petronas and Petrovietnam which are essentially state-owned companies. As oil prices reach new lows, groups with adequate capital on their balance sheet are likely to eye E&P acquisitions that may seem relatively cheaper now.

## II. Outlook for the region and SPC

**Upcoming refining capacity to impact refiners.** Asian refiners may soon start to feel the impact of Reliance Industries' Jamnagar refinery expansion in India early this year, including other new capacity additions from other refiners (Exhibit 5). Generally a sustainable US\$5-6 per barrel refining margin is needed before new refinery construction could be justified. Though current margins and the uncertain outlook may not justify new investments, there may be refinery creep where existing refiners expand capacity in their plants. For instance, Indonesia's state-owned PT Pertamina plans to expand its existing refinery at Balongan in West Java on top of construction plans for two new refineries within three to five years.

**Demand for products will depend on economic recovery.** Chinese demand for oil products started disappearing in 3Q08, and the tepid outlook may persist in the short term, though hopes remain that the government's economic stimulus packages will help spur demand in the later half of this year. Fundamentals for products such as petroleum for China and India are especially strong in the long term as both countries currently have a low penetration of motor vehicles. South Korea and Japan, on the other hand, hold less growth potential in that respect. SPC's refined product markets are mainly in the Asia-Pacific region.

**Bleak outlook reflected in project reviews and low planned capex.** SPC mentioned in January that it is "reviewing" a couple of planned investments, including a 'green' gasoline project and a co-generation plant at the SRC. Steep falls in crude and product prices have weakened the group's earnings. We believe that the speed of deterioration in sentiments and operating margins took the Company by surprise. Anecdotally, this is illustrated by the fact that SRC advertised for staff including a project manager and engineers for its cogen plant project just recently in Nov 08.

## Section D. Financial analysis

### I. Financial performance and forecasts

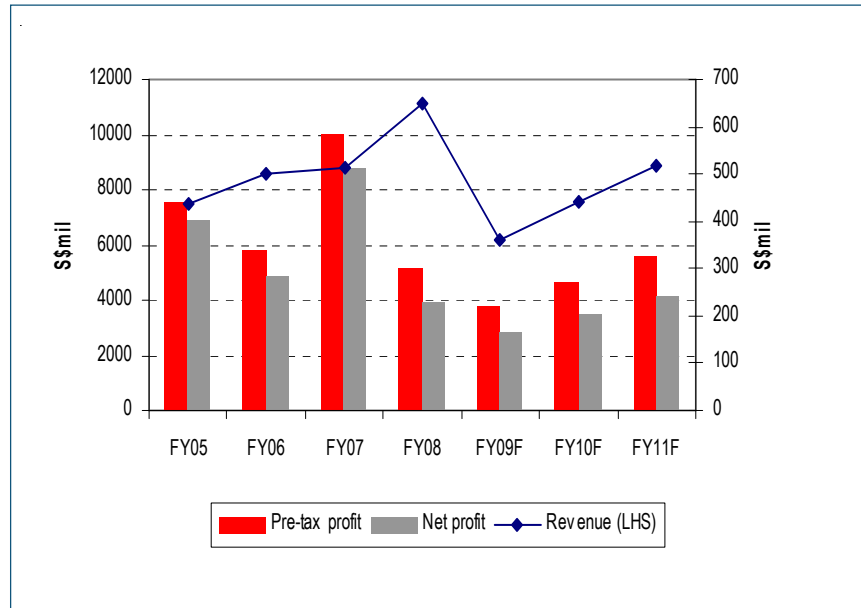
**Lower revenue and gross loss in 4Q08.** In SPC's latest 4Q08 results, group revenue fell by 44% YoY to US\$1.85b with severe reduction in refined petroleum products. A gross loss of S\$37.7m was incurred due to higher cost of sales which took into account a S\$262.5m inventory write-down due to lower oil prices. This resulted in negative gross margins of -2% compared to 2.1% in 3Q08 and 2.4% in 4Q07.

**Net loss for 4Q08.** The group posted a net loss of S\$50m in 4Q08 compared to a net profit of S\$144k in 4Q07. SPC also saw a S\$60.8m loss before tax in 4Q08. This was mainly due to a lower gross income rather than higher other expenses (selling and marketing, general administrative and interest expenses witnessed lower numbers in the last quarter).

**Inventory write down.** The drastic fall in oil prices has led SPC to write down S\$262.5m in its FY08 financial results. Fortunately the entire amount was not expensed in its income statement because a S\$134.2m mark-to-market gain on derivatives used to hedge the crude inventory exposure was recognized. The group hedges about half the amount of inventory that it has in any given period such as by taking short positions in forward contracts (sell oil at future date) and this policy has served it well during volatile price swings.

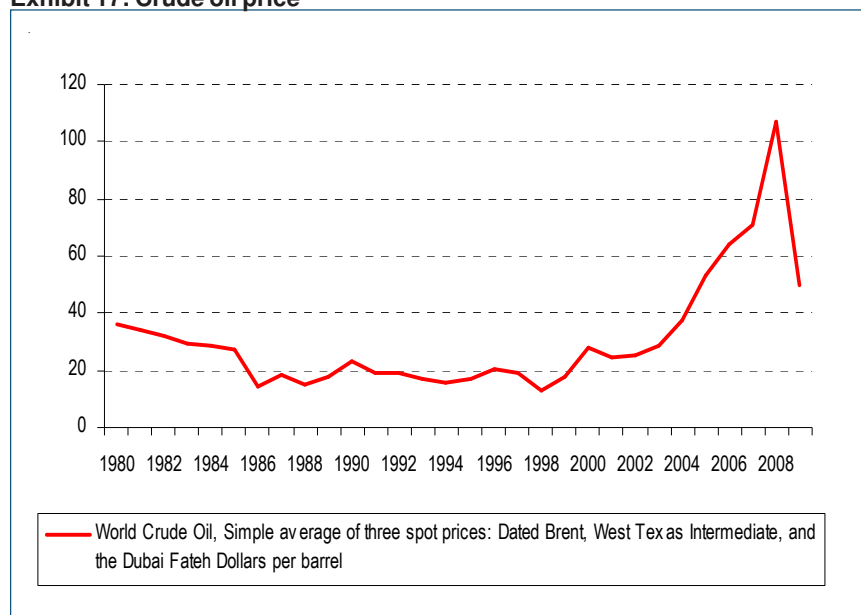
**Forecasts.** We are estimating a 28% fall in earnings in FY09, followed by a 22% growth in FY10 (Exhibit 16). The run up in oil prices before the drastic fall in 2H08 contributed to higher revenue for SPC, but assuming that oil price averages about US\$55/barrel this year, revenue will inevitably be affected, on top of the expected weak demand for refined products. However, we note that a stronger USD may translate into better financials for SPC which reports its results in SGD. We expect group gross margin to average around 5.5% as another inventory write-down is unlikely, unless oil prices experience another dramatic fall again this year.

Exhibit 16: Financial performance



Source: Company data, OIR

Exhibit 17: Crude oil price



Source: IMF, World Economic Outlook database, OIR

**Earnings estimates.** There is a possibility that SPC may discover oil in its exploration wells and oil production may increase significantly due to new production. This may lead to higher earnings for the group and is likely to be a potential share price catalyst. However, downside risks are also present, such as lower E&P production due to environmental factors, as well as unexpected accidents in operations which can lead to downtime and lower production. A worse than expected deterioration in economic environment may also lead to lower refining margins. Our earnings estimates are marginally higher (3%) than the consensus estimate though we do note the wide range in individual estimates.

#### Exhibit 18: Regional comparables

	FY06	FY07	FY08	FY09F	FY10F
<b>Refining business</b>					
SRC refining margin (US\$/barrel)	4.55	7.00	5.50	3.00	4.00
SPC's share of refining capacity (bpd)	145,000	145,000	145,000	145,000	145,000
Refinery utilisation	98%	97%	90%	80%	90%
<b>Upstream operations</b>					
Crude price (US\$/barrel)*	64.3	71.1	107.3	55	60
SPC's share of production (boed)	2,540	3,835	6,600	7,000	8,000

\*average of WTI, Brent and Dubai spot prices

Source: Bloomberg

**Dividend payouts likely to taper off.** The dividend payout ratio has been about 60% from FY06-08 but was previously around the 33-38% range in FY04-05. With the bleaker outlook and corresponding lower expected earnings, it is likely that the group may cut its dividend payout ratio. Moreover, it may wish to conserve cash for possible E&P acquisitions at current lower prices. We are estimating that the payout ratio may be cut to about 40% of net profit, translating to about S\$0.13/share for FY09.

## II. Valuation and recommendation

**Initiate with HOLD.** We initiate coverage on SPC with a **HOLD** recommendation and fair value estimate of S\$2.45 using sum of the parts valuation. The refining business is valued using 8x FY09F PER, slightly lower than the regional average considering the refinery's lower complexity rating and taking into account that earnings may be relatively more affected in swing-centre Singapore. The E&P business is valued using 7X FY09F PER, similar to the regional average. We will turn buyers of the stock around S\$2.20 (~7x FY09F PER) barring a sudden deterioration in economic environment. Our basis for using a PER based approach is that its valuation will be driven by earnings. Sentiments surrounding volatile oil prices are also key share price and earnings determinants for SPC.

Exhibit 19: Regional comparables

Company	Price		Market Cap L currency (bil)	P/E		P/B (x)	P/Sales (x)
	Local currency			Cur Yr (x)	Next Yr (x)		
<b>Regional refiners</b>							
Bangchak Petroleum	THB	8.3	9.3	2.9	4.0	0.5	0.07
Bharat Petroleum	Rupee	340.0	122.9	20.6	7.5	1.0	0.11
Caltex Australia	AUD	9.3	2.5	7.1	7.1	1.0	0.11
Esso Thailand	THB	3.8	13.2	5.7	5.1	0.6	0.05
GS Holdings	Won	27,050	2,513	7.3	6.8	0.7	18.05
Indian Oil Corp	Rupee	391.0	466.2	13.9	7.9	1.1	0.22
PTT Aromatics & Refining	THB	8.8	25.9	-	5.0	0.5	0.1
S-Oil	Won	55,500	6,248	8.9	8.4	1.9	0.27
Thai Oil	THB	26.3	53.6	6.4	5.9	0.9	0.13
<b>Average</b>				<b>9.1</b>	<b>6.4</b>	<b>0.9</b>	<b>2.1</b>
<b>Regional E&amp;P companies</b>							
CNOOC	HKD	7.4	328.3	6.3	10.7	1.9	2.44
Oil and Natural Gas Corp	Rupee	721.8	1,543.8	7.2	7.9	2.0	1.6
Petrovietnam	Dong	59,000	7,797.9	8.7	7.9	3.6	2.1
<b>Average</b>				<b>7.4</b>	<b>8.8</b>	<b>2.5</b>	<b>2.0</b>
<b>Regional Integrated companies</b>							
Petronas	RM	7.4	7.3	12.7	12.9	1.8	0.28
PTT Public	THB	148.0	418.0	7.0	5.9	1.1	0.21
Reliance Industries	Rupee	1,335.0	2,101.0	13.6	10.5	2.3	1.41
Sinopec	HKD	4.2	738.3	12.7	7.1	1.0	0.24
SK Energy	Won	82,200	7,601	7.7	6.8	1.0	0.16
<b>Average</b>				<b>10.7</b>	<b>8.7</b>	<b>1.5</b>	<b>0.5</b>
<b>Total average</b>				<b>9.1</b>	<b>8.0</b>	<b>1.6</b>	<b>1.5</b>
<b>Singapore Petroleum Co</b>	<b>SGD</b>	<b>2.50</b>	<b>1.3</b>	<b>7.5</b>	<b>5.2</b>	<b>0.7</b>	<b>0.1</b>

Source: Bloomberg

## Appendix

A production sharing contract (PSC) is an agreement between the parties of an oil field and the host country that specifies the share of production that each party receives after deducting costs other expenses. Normally the operator bears all exploration risks while the host country obtains a share of the commodity once oil is discovered.

### Upstream assets (listed according to date acquired)

**Kakap PSC, Indonesia.** Acquired in Jun 2000, this PSC covers 2,006km<sup>2</sup>. Producing both oil and gas, it consists of two blocks, namely North Kakap and South Kakap. For 2007, the combined field production was about 975,000 boe for SPC's share and the produced oil is processed by a floating production storage and offloading (FPSO) vessel. The gas is transported through the West Natuna Transportation System pipeline to Singapore.

**Song Hong Basin, Blocks 102 and 106, Vietnam.** Acquired in Apr 04, this area covers about 8,560km<sup>2</sup>. It contains the Yentu-1X and Thai Binh oil and gas discoveries. The operator is Petronas. This asset has yet to start production.

**Sampang PSC, Indonesia.** This area was acquired in Jul 04 and comprises the Oyong, Wortel and Jeruk fields. Oyong came into production in Sep 07 and is SPC's second producing asset after the Kakap PSC. First oil production was previously targeted for Jun 07, but was delayed due to delays in the procurement of equipment in the then tight market. At commencement, the field produced oil at about 8,000 to 10,000 bpd, which translates to 3,200 and 4,000 bpd for SPC's 40% interest. Gas production is expected to commence this year. Wortel and Jeruk are currently not producing.

**Gulf of Thailand, Block B, Cambodia.** Acquired in Aug 05, this acreage is located 250km offshore from Cambodia. It lies on the southeast of the Khmer Basin where oil and gas discoveries have been made. The last update on this asset was in Jul 08 when the Vimean Morodok MahaNorkor-1 exploration well was plugged and abandoned with non-recoverable oil shows. However, further work will be undertaken to evaluate the block's prospects.

**Song Hong Basin, Block 101-100/04, Vietnam.** This 6,174km<sup>2</sup> area is adjacent to Blocks 102 and 106 and has gas and condensate discovery. Acquired in Oct 06, the operator for this block is Santos, a major Australian oil and gas E&P company. This asset has yet to start production.

**Bass Basin, Block T/47P, Australia.** In Mar 07, SPC, Tap Oil and Jubilant Energy were together awarded an exploration permit for this block, which is located 200km from Melbourne. A drilling rig to conduct exploration drilling has been secured and is scheduled to commence early this year. As such, this asset has yet to start production.

**Pearl River Mouth Basin, Block 26/18, China.** In Aug 07, SPC signed a petroleum contract with China National Offshore Oil Corporation (CNOOC) for a 100% operating interest in this area which covers 4,961km<sup>2</sup>. Under the terms of the contract, SPC has to carry out an agreed work commitment which includes a 2D seismic survey and drilling of one exploration well

**Bohai Bay, Blocks 04/36 and 05/36, China.** SPC acquired these two producing blocks in Oct 07 with 18.2% and 23% in working interest for Blocks 04/36 and 05/36 respectively. The acquisition cost US\$223m and contributed about 4,300boepd to the group's production in 2008. Currently, this is SPC's largest producing property.

**Mahakam Hilir PSC, Indonesia.** Situated in East Kalimantan, this PSC covers 344.14km<sup>2</sup> was acquired in Nov 08. This latest addition is also SPC's only onshore asset. SPC is the operator of this block and is committed to conduct seismic survey and exploration drilling. As such, this asset has yet to start production.

**SPC's Key Financial Data**
**EARNINGS FORECAST**

Year Ended 31 Dec (S\$ m)	FY07	FY08	FY09F	FY10F
Revenue	8,766.7	11,123.7	6,170.4	7,539.5
Cost of sales	-8,043.1	-10,657.6	-5,831.0	-7,124.8
Gross profit	723.6	466.1	339.4	414.7
EBITDA	667.5	459.5	361.3	401.3
Depreciation	-89.1	-145.2	-132.3	-124.4
EBIT	578.5	314.3	229.0	276.9
Net interest	-25.2	-29.4	-23.0	-17.8
Share of Assoc Profits & JV	13.5	12.5	11.0	11.0
Exceptional items	16.8	2.9	2.0	2.0
Pre-tax profit	583.5	300.4	218.9	272.0
Tax	-68.9	-71.2	-52.5	-68.0
Minority interests	0.1	0.5	0.3	-0.3
Net profit	514.7	229.7	166.6	203.8
Earnings per share (S cents)	100.0	44.7	32.3	39.5
Fully diluted earnings per share (S cents)	100.0	44.6	32.3	39.5

**BALANCE SHEET**

As at 31 Dec (S\$ m)	FY07	FY08	FY09F	FY10F
Cash	475.1	319.5	496.6	618.1
Other current assets	2,289.3	1,462.2	1,186.4	1,333.6
Fixed assets	1,254.5	1,260.4	1,246.1	1,197.6
Other long term assets	318.7	338.3	378.4	417.8
Total assets	4,337.5	3,380.5	3,307.4	3,567.0
Current liabilities less debt	1,521.9	914.4	735.3	858.1
Debt	836.8	574.1	574.1	574.1
Other long term liabilities	182.1	189.5	189.5	189.5
Total liabilities	2,540.7	1,678.1	1,499.0	1,621.7
Shareholders equity	1,796.4	1,700.8	1,807.0	1,943.7
Minority interests	0.5	1.6	1.4	1.6
Total equity and liabilities	4,337.5	3,380.5	3,307.4	3,567.0
NTA per share (S cents)	327.9	303.0	316.5	339.1

**CASH FLOW**

Year Ended 31 Dec (S\$ m)	FY07	FY08	FY09F	FY10F
Operating profit before working cap. changes	678.1	606.6	369.5	412.3
Working capital changes	-249.7	110.9	81.3	-27.7
Income tax	-41.5	-80.0	-80.6	-64.0
Net cash from operations	386.9	637.4	370.2	320.6
Capex	-101.8	-177.7	-90.0	-100.0
Other investing flows	-291.2	17.2	10.2	14.2
Investing cash flow	-393.0	-160.5	-79.8	-85.8
Change in equity	0.9	0.1	0.0	0.0
Net change in debt	395.2	-262.8	0.0	0.0
Dividends paid	-283.7	-309.3	-67.0	-67.1
Others	-52.3	-60.5	-46.3	-46.2
Financing cash flow	60.0	-632.6	-113.3	-113.4
Net cash flow	53.9	-155.6	177.1	121.5
Cash at beginning of year	421.2	475.1	319.5	496.6
Cash at end of year	475.1	319.5	496.6	618.1

**Key Ratios**

PER (x)	2.5	5.6	7.7	6.3
Price/NTA (x)	0.8	0.8	0.8	0.7
EV/EBITDA (x)	2.5	3.4	3.8	3.1
ROE (%)	28.7	13.5	9.2	10.5
Dividend yield (%)	24.0	11.2	5.2	5.2
Net Debt/Equity	0.20	0.15	0.04	-0.02
PE to growth (x)	0.0	-0.1	-0.3	0.3

Source: Company data, OIR estimates

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