

ONGC IN Rs1,187 5 January 2010 Detailed Report

# Big daddy

ONGC, India's premier NOC, has exploration rights over 45% of the country's NELP acreage. While its exploration performance on NELP acreage has been weak so far, we expect an improvement going forward, as pressure of drilling nomination blocks eases over CY2010-11. Its overseas E&P subsidiary, ONGC Videsh (OVL), has registered 14.8% CAGR in production over FY05-09, and will drive production growth as three more fields commence production over CY11-13. The new subsidy mechanism, whereby upstream companies bear only auto fuel subsidy, will benefit ONGC in the near term compared to the earlier regime, as diesel crack spreads remain weak on large inventories and crude trades in the US\$60-70/bbl range. Strong cash generation will support capex in NELP blocks. We initiate with BUY rating and target price of Rs1,344/share.

Increased focus on NELP acreage, NELP reserve accretion key trigger: ONGC has exploration rights on 45% of India's NELP acreage. It has drilled only 13 out of 47 NELP blocks with established commercial productivity, implying potential for future discoveries. It has not yet incorporated reserves from any of its NELP blocks in its declared reserves, which would be a key trigger for the stock. While its exploration performance has been weak so far, we feel it will benefit as pressure of drilling nomination blocks ease off.

New subsidy mechanism likely to benefit ONGC in the near term: The new mechanism of upstream companies picking up auto fuel subsidies improves ONGC's net realisation at crude prices lower than US\$68/bbl. With high middle-distillate inventories putting pressure on refining margins, ONGC's subsidy burden will be lower now as compared to the earlier regime as long as crude trades in the US\$60-70/bbl range. However, subsidy burden will increase sharply beyond this range.

**Fair value Rs1,344/share, we recommend BUY:** We value ONGC standalone's proved reserves at US\$9.1/bbl (Rs1,086/share), factoring in lower profitability compared to global peers. We value OVL at Rs216/share. Adding on value of ONGC's stake in MRPL, IOC, GAIL and PLNG, we arrive at a target price of Rs1,344/share. We initiate with BUY rating.

ONGC reserve profile							
5,000 T							
4,000	■ 1P	■ 2P	3P				
3,000 -	(MTOE)						
2,000 -							
1,000 -							
0 +	ONGC	JV	OVL	Total			
	01400	0 0	OVL	TOTAL			

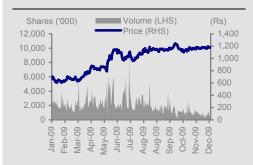
Source: IIFL Research

Financial Summary					
Y/e 31 Mar	FY08A	FY09A	FY10ii	FY11ii	FY12ii
Revenues (Rs m)	967,822	1,045,884	1,029,592	1,083,128	1,150,274
EBITDA Margins (%)	41.8	39.9	41.7	41.2	40.7
Reported PAT (Rs m)	198,723	197,953	199,889	205,082	215,655
EPS (Rs)	92.9	92.5	93.5	95.9	100.8
Growth (%)	11.8	-0.4	1.0	2.6	5.2
PER (x)	12.8	12.8	12.7	12.4	11.8
ROE (%)	26.3	24.5	21.4	19.3	18.1
Debt/Equity (x)	-0.2	-0.1	-0.1	-0.2	-0.2
EV/EBITDA (x)	5.8	5.9	5.6	5.3	4.9
Price/Book (x)	3.4	3.1	2.7	2.4	2.1

Price as at close of business on 04 January 2010

12-mth TP (Rs)	1,344 (	(13%)	
Market cap (US\$	5	4,183	
52Wk High/Low (F Diluted o/s shares Daily volume (US\$ Dividend yield FY1 Free float (%)	1,27	78/588 2139 26.2 2.7 25.9	
Shareholding pa Promoter FII Domestic MF/Insura Others	6)	74.1 4.5 7.6 13.8	
Price performan	ce (%) 1M 0.7	<b>3M</b> 0.4	<b>1Y</b> 74.5
Rel. to Sensex	-1.5	-2.1	-2.9
RIL Cairn Oil India	-1.2 1.4 -0.9	-1.1 8.7 6.6	67.1 64.8
oa.a	3.,	3.0	

### Stock movement



Bhaskar Chakraborty bhaskar@iiflcap.com (91 22) 4646 4670

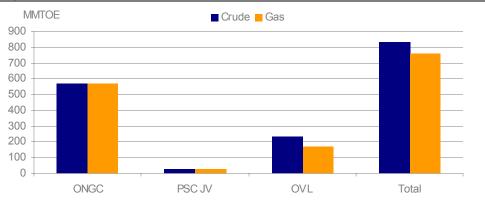


# Overview

### Reserves

Domestic reserves account for 74% of ONGC's overall reserves (standalone 71%, JVs 3%), with ONGC Videsh Ltd accounting for the balance 26%.

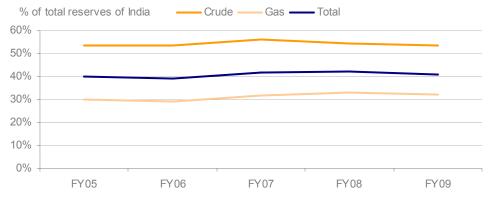
Figure 1: 3P reserves break-up of ONGC



Source: Company, IIFL Research

ONGC accounts for more than 50% of India's crude reserves and about a third of India's natural gas reserves.

Figure 2: ONGC accounts for more than half of India's crude and NG reserves

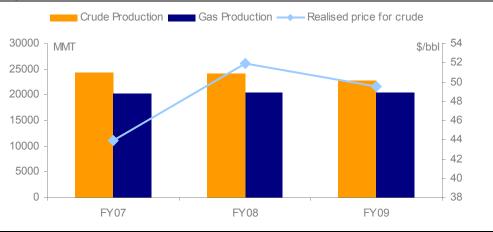


Source: DGH, Company, IIFL Research

### **Production**

Crude production from ONGC's domestic assets has been declining over the past few years due to production decline in mature fields.

Figure 3: Production profile & realised crude price



Source: Company, IIFL Research

# NOC accounts for 75% of domestic crude and 73% of gas production

# 50% of India's prospective acreage

ONGC, India's premier NOC, owns 0.51m sq km of exploration acreage or 50% of India's total prospective acreage. 55% of the exploration acreage in proven basins in the country is owned by ONGC. In contrast, the largest private upstream company—Reliance Industries (RIL) has exploration rights on only 19% of the proven basins. ONGC's acreage encompasses 50% of India's total acreage in proven and identified prospective basins.



Figure 4: ONGC has 50% of India's	prospective acreage.	55% in proven basins

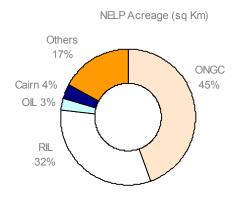
Basin Classification	ONGC acreage (sq km)
Proven Commercial Productivity	
Assam Arakan	19,207
Cambay	11,332
Cauvery	65,945
KG Offshore	92,940
Mumbai Offshore	47,533
Rajasthan	1,771
ONGC Total	2,38,728
Grand Total	4,32,417
% of acreage	55%
Identified Prospectivity	
Kutch-Saurashtra	41,608
Mahanadi-NEC	48,594
Andaman-Nicobar	45,292
ONGC Total	1,35,494
Grand Total	3,15,950
% of acreage	43%
Prospective Basins	
Bengal	19,044
Ganga Valley	10,581
Himalayan Foreland	4,362
Kerala-Konkan Lakshadweep	92,421
Vindhyan	14,475
ONGC Total	1,40,883
Grand Total	2,82,991
% of proven acreage	50%
ONGC total acreage	5,15,105
Overall total acreage	10,31,357
ONGC share of India's total acreage	50%

Source: DGH, IIFL Research

# **Comprehensive NELP footprint**

ONGC owns 0.44m sq km of exploration acreage as part of NELP—45% of total NELP acreage. In terms of NELP acreage, ONGC has exploratory rights over 47 blocks in basins with proven commercial productivity. Out of these, it has drilled exploratory wells in only 14 blocks, with the remaining 33 blocks in proven basins unexplored as of date. It has not declared reserves from any of its NELP blocks till date. Reserve accretion from NELP blocks would be a key trigger for the stock in our view.

Figure 5: ONGC has 45% of NELP acreage



Source: DGH, IIFL Research

# Higher focus on NELP blocks going forward

ONGC has 79 nomination blocks that have time till 2012 for completion of exploration. It has to surrender the blocks where it fails to drill exploratory wells by this timeline. Since it had prioritised drilling of the nomination blocks, its progress with the NELP blocks (with higher likelihood of success) was slow. However, it has already commenced exploratory activities in 66 of the nomination blocks. Going forward, the management plans to focus more resources on the NELP acreage as pressure of drilling the nomination blocks ease. NELP acreage holds higher likelihood of discoveries for the company.

# However, unimpressive exploration track record

ONGC has consistently fallen short of its exploration commitments.



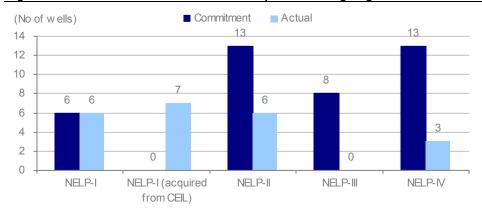
Figure 6: ONGC has fallen short of exploratory drilling targets

FY08		FY09		
Target	Actual	Target	Actual	
139	99	162	108	
231	224	232	218	
	Target 139	Target Actual	Target Actual Target 139 99 162	

Source: Company, IIFL Research

ONGC has made slow progress in exploring its deepwater blocks. Till date it has drilled only 22 exploratory wells in deepwater blocks and has fallen well short of its commitments laid out in the minimum work programmes (MWP).

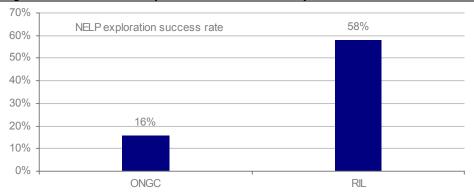
Figure 7: ONGC has fallen well behind its deepwater drilling targets



Source: DGH, IIFL Research

ONGC's exploration success rate in NELP acreage lags those of private players. It has drilled 74 wells across 24 blocks in its NELP acreage. It has recorded only 12 discoveries across 6 blocks till date. Thus, ONGC's exploration success rate in NELP blocks works out to 16%. This compares rather poorly to Reliance Industries' (RIL) exploration success rate of 58% in its NELP acreage.

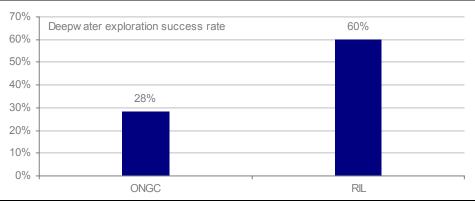
Figure 8: ONGC's NELP exploration success rate only a fraction of RIL



Source: DGH, IIFL Research

ONGC has had only 8 discoveries in the proven deepwater basins of the NELP blocks while RIL has had 24 discoveries. Even when it comes to the KG basin, ONGC's exploration success rate of 32% (6 discoveries) compares adversely to RIL's success rate of 60% (28 discoveries).

Figure 9: ONGC's deepwater exploration success rate compares unfavourably to RIL



Source: DGH, IIFL Research

# Improved deepwater rig availability to boost deepwater exploration

ONGC's deepwater exploration activities continue to be hampered owing to unavailability of deepwater rigs.



Figure 10: Deepwater exploratory drilling hampered by rig availability

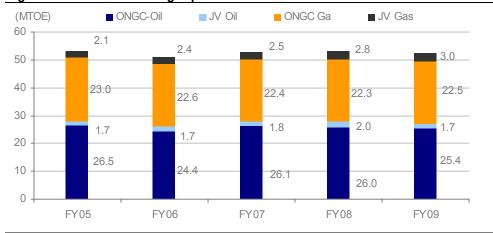
	FY0	8	FY09	
	Target	Actual	Target	Actual
Deepwater exploratory wells	10	4	19	2

Source: Company, IIFL Research

ONGC owns one deepwater rig (Sagar Vijay) and has two more leased from Transocean and RIL (leased recently). It is augmenting these with two more rigs from Sevan Marine (will arrive by 4QCY10) and Vantage Drilling (will arrive by 1QCY11). After falling well short of drilling targets in FY08 and FY09, ONGC has set a modest target of 7 deepwater exploratory wells for FY10. We expect some acceleration in deepwater exploration activity after the arrival of the additional rigs.

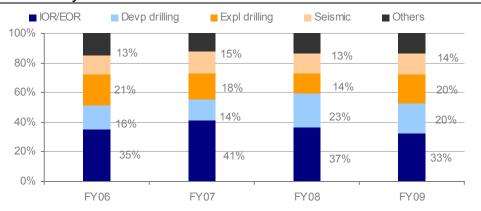
# IOR/EOR initiatives have arrested domestic production decline ONGC's top 15 fields contributing c.80% to ONGC's domestic production have been declining since the late 90s. The company undertook a massive IOR/EOR programme to improve the recovery factor of its major fields and sustain production levels. The capex plan improved the recovery factor from the top 15 fields from 27.5% in FY00 to 33% in FY09 to bring it in line with the global average, arresting the expected decline of 7%pa.

Figure 11: Domestic oil and gas production flat on IOR/EOR initiatives



Source: Company, IIFL Research

Figure 12: Capex on IOR/EOR exceeded that on seismic and exploration drilling in 3 out of last 4 years



Source: Company, IIFL Research

Figure 13: Progress of IOR/EOR projects

IOR/EOR projects	Start year	Scheduled completion	Anticipated completion	%completed
Vasai East	2003	2008	2009	100%
Rudrasagar - IOR	2001	2010	2010	60%
Geleki - IOR	2001	2011	NA	62%
Lakwa-Lakhmani -IOR	2001	2010	NA	82%
KG-DWN-98/2 East Coast Hub	2008	2010	NA	NA
G-1 & GS-15 Fields Development	2003	2006	2011	70%
C-Series Fields Development	2006	2008	2010	83%
Heera & South Heera Redevelopment	2006	2010	NA	63%
B-22 Cluster Fields Development	2007	2010	2012	0%
B-46 Cluster Fields Development	2007	2010	2012	0%
B-193 Cluster Fields Development	2007	2010	2012	0%
Mumbai High South - Redevelopment Phase II	2007	2010	2011	49%
Heera & Neelam Reconstruction Project	2008	2010	NA	16%
Mumbai High North Redevelopment Phase II	2009	2012	NA	0%
Gas Processing Units at Hazira & Uran	2008	2011	NA	0%
Pipeline Replacement Cost - Ahmedabad	2008	2010	NA	67%

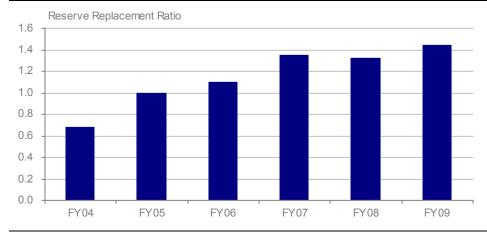
Source: Company, IIFL Research



# No major domestic discoveries, necessitating acquisition of producing assets overseas

ONGC has managed to maintain the Reserve Replacement Ratio (RRR) of more than 1 for 5 consecutive years up to FY09. However, it has made no major discoveries in the past 10 years. KG-DWN-98/2 remains the key production augmentation driver for the company. However, the company can bring this block to production only by 2013.

Figure 14: Strong RRR over FY05-09



Source: Company, IIFL Research

This has made ONGC look overseas actively to augment production. Through its overseas subsidiary, ONGC Videsh Ltd (OVL), ONGC has established presence in 16 countries across 40 projects. It has 9 producing fields, up from only 2 in FY05. Acquiring producing assets have augmented ONGC's production, with OVL production registering a CAGR of 14.8% over FY05-09. However, producing assets are more expensive than exploratory assets and ONGC's largest overseas acquisition—Imperial Energy in Russia appears expensive when compared to the Russian O&G universe.

Figure 15: Russia and Sudan form bulk of OVL's current production

Project	Country a	Year of cquisition	Acquisition cost (\$m)	PI (%)	Operator	1P Oil (MMT)	1P Gas (BCM)	2P Oil (MMT)
Block 06.1	Vietnam	2001	228	45%	No	0.8	14.8	0
Sakhalin	Russia	Jun-05	2770	20%	No	37.9	70.1	0
Imperial	Russia	Jan-09	2100	100%	Yes	18.9	3.9	125.5
Block 5A	Sudan	Jun-05	275	24%	No	6.6	0	0
Greater Nile Oil Project	Sudan	Mar-03	669	25%	No	20.2	0	0
Al Furat	Syria	Jun-05	220	50%	No	3.0	0	0
Block BC- 10	Brazil	Apr-06	165	15%	No	2.0	0.6	6.8
San Cristobal	Venezuela	2008	356	40%	No	7.3	0	0
Mansarovar Energy Project	Columbia	2006	425.75	50%	No	3.7	0	0

Source: Company, IIFL Research

OVL's production is targeted to grow from 8.8MMT in FY09 to 20MMT in FY20, at a CAGR of 8.5%pa. Two of its current assets are likely to contribute substantially to near-term growth in production—Imperial Energy, Russia and Block BC-10, Brazil. Apart from these, two gas fields in Vietnam will likely commence production in CY2011 while one in Egypt by CY2013. ONGC is likely to continue acquiring producing assets overseas in order to meet steep production targets.

# OVL production growth to be driven by Imperial Energy and BC-10

ONGC paid US\$2.3bn for acquiring Imperial Energy in FY09. Imperial has 2P oil and gas reserves of 920mboe (864mbbl oil, 56mboe gas) and additional risked prospective resources of 500mboe. Imperial has added 12% to ONGC's 2P O&G reserves. However, mineral extraction contracts in Russia charge hefty mineral extraction tax and export tax on O&G producers, limiting the upside from improvement in crude prices. However, ONGC's rationale for paying a higher price for Imperial include the fact that the latter owns its own infrastructure including pipelines connecting it to domestic Russian (Transneft) and export markets, drilling equipment, and field-processing facilities.



Imperial has scaled up production from 8,500bpd at the beginning of current financial year to 14,000bpd currently. This is expected to increase to 25,000bpd in Apr-10 and then to 80,000bpd in CY2011.

OVL acquired 15% PI in deepwater offshore Block BC-10 in Campos basin of Brazil in early-FY07 for a consideration of US\$165m. OVL's share of development costs in the field is US\$313m. OVL's share of 2P reserves in the field amounts to c50mboe. The field has commenced production recently and is producing 45,000bpd currently. Production will be ramped up to 100,000bpd by CY2011.

### New fields will add to OVL production starting CY2011

OVL has three exploration projects in appraisal phase. Two gas fields in Myanmar are expected to commence production by CY2011, followed by oil from North Ramadan in Egypt by CY2013.

Figure 16: Three more fields will go into production in next 4 years

Project	Primary hydrocarbon	Country	PI (%)	Operator	Gas In place	Phase
A1	Gas	Myanmar	20%	No	3.83	Appraisal for discoveries Shwe & Shwe Phyu
A3	Gas	Myanmar	20%	No	tbd	Exploration extension & tie- in development plan for discovery Mya
Block 6 North Ramadan	Oil	Egypt	70%	No	tbd	Extension of exploration period

Source: Company, IIFL Research

OVL is the operator for Block-8 in Iraq and Farsi Offshore in Iran. The war in Iraq has delayed ONGC's progress in Block-8 with the exploration phase still underway. The fiscal regime in Iran only allows for a fixed rate of return on the operator's investment in developing a block, thus limiting the upside that could ensue owing to improvement in market prices. Thus, ONGC will earn a fixed rate of return on the Farsi block.

Figure 17: Prospective exploration acreages

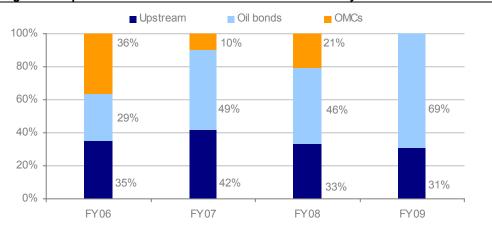
Project	Country	Year of acquisition	PI (%)	Operator	Phase	Seismic
Block 8	Iraq	May-01	100%	Yes	Exploration Phase I	Ongoing
Farsi	Iran	Dec-02	40%	Yes	Development plan being finalised	Completed

Source: Company, IIFL Research

# New subsidy scheme likely to benefit ONGC in near term

Under the subsidy sharing mechanism prevalent till FY09, upstream companies had to bear about a third of the total subsidy burden. The government provided oil bonds for about 45-50% of the subsidy bill, with the remaining 10-20% borne by oil marketing companies (OMCs). Unprecedented rise in oil prices saw the government step in to share 69% of the subsidy burden in FY09 with OMCs bearing zero burden. However, the allocation of the subsidy burden has been ad hoc and uncertain and has weighed on ONGC's stock performance.

Figure 18: Upstream bears about a third of the overall subsidy burden

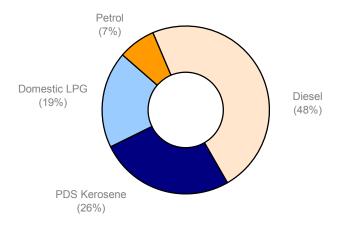


Source: Infraline, IIFL Research

Diesel continues to remain the largest contributor of the overall subsidy burden (45-50% of the total), with PDS Kerosene the next biggest contributor at about 25%. But while consumption of diesel is growing at c.8.5%pa, consumption of PDS Kerosene is declining at c.1%pa.

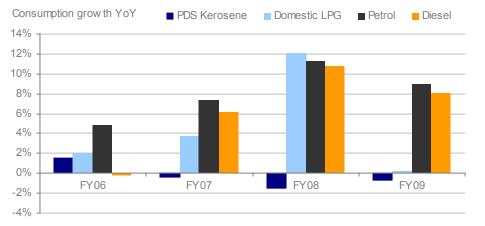


Figure 19: Diesel accounts for half of subsidy bill, PDS kerosene a fourth



Average of FY08, FY09; Source: Infraline, IIFL Research

Figure 20: Auto fuel consumption growing much faster than cooking fuels



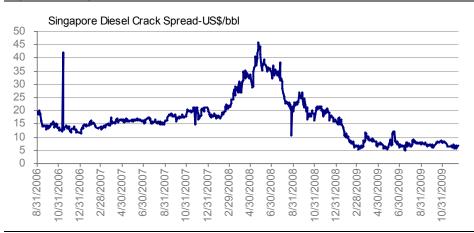
Source: Infraline, IIFL Research

Recently, the government of India (GoI) has announced an overhaul of the subsidy mechanism and as a first step has decided to bear all cooking fuel subsidies. It plans to let the industry bear as much of the auto-fuel subsidy as it possibly can. It is also working on a pricing policy for petroleum products.

The Gol's decision to pick up the cooking fuel subsidy burden pushes up the breakeven price for subsidising crude for ONGC to approx. US\$60/bbl from the earlier scenario where subsidies on kerosene kicked in at crude price of c.\$28/bbl and on LPG at crude price of c.\$45/bbl. This benefits ONGC in a scenario where oil price remains in US\$60-70/bbl range. Also, it is easier for the government to increase retail price of auto fuels, thus partially cushioning upstream companies from the full impact of rise in crude prices beyond US\$70/bbl. Increasing cooking fuel prices is tougher as it is a politically sensitive decision.

Our base case crude oil price of US\$65-70/bbl over FY10-11ii benefits ONGC as the subsidy burden in the new setting is lower than the earlier scenario. The bloated middle-distillate stock globally coupled with excess refining capacity can keep diesel spreads under pressure over the near term. This will keep the subsidy burden under check and benefit ONGC.

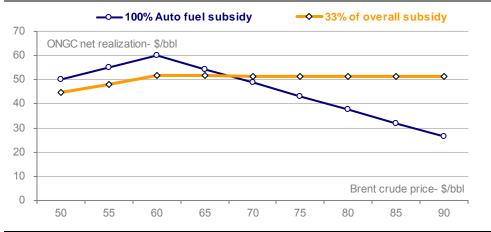
Figure 21: Singapore diesel crack spreads could remain depressed on bloated stocks



Source: Bloomberg, IIFL Research



Figure 22: New auto fuel subsidy mechanism is beneficial up to crude price of US\$68/bbl



Source: IIFL Research

However, the subsidy burden in the new scenario will outweigh that in the earlier scenario if oil were to move past US\$70/bbl (assuming no change in retail prices of auto fuel). In our opinion, GoI might have to rethink the subsidy sharing mechanism if crude moves significantly away from the US\$60-70/bbl range.

In order to increase the predictability of the overall subsidy burden, ONGC has recently suggested to the fuel pricing policy panel that a special-oil tax or a windfall-profit tax should be levied by the government beyond a threshold crude price. The other state-owned upstream oil company, Oil India Ltd (OIL) also made a similar suggestion. The panel is expected to formulate a subsidy sharing policy that will be considered by the GoI.

We have built in Rs456bn of subsidies in FY10ii with ONGC's net realisation at US\$52/bbl. However, uncertainty on policy finalisation of petroleum subsidy sharing is likely to continue to weigh on the stock in our view.

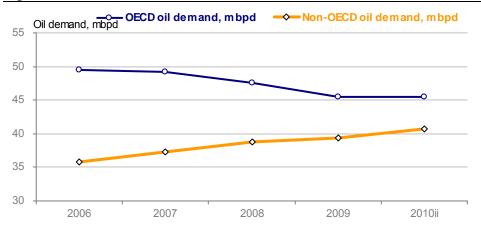
# Pressure on downstream business likely to continue

ONGC acquired Mangalore Refinery and Petrochemical Limited (MRPL) from the Aditya Birla Group in March, 2003. ONGC holds 71.62% stake and produces 12.6MMT of output annually.

# Global refining margins under pressure

IEA forecasts 1.7% YoY decline in global oil demand in 2009 following a marginal decline in 2008. OECD oil demand is expected to lead the decline in 2009, down 4.3% YoY. IEA forecasts flat OECD demand over 2010 pointing to a slow recovery.

Figure 23: OECD demand remains weak



Source: IEA, IIFL Research

A long period of under-investment in refining capacity had brought the industry on even-keel in 2006, but high crude prices in following years have led to significant capacity addition pipeline. IEA expects 7.5mbpd of refinery capacity additions in 2009-14. These will be driven by China, the Middle East, and India. Incremental refining capacities are likely to further weigh on refinery utilisation given the weak recovery in OECD demand.



Figure 24: Major capacity additions over FY09-14

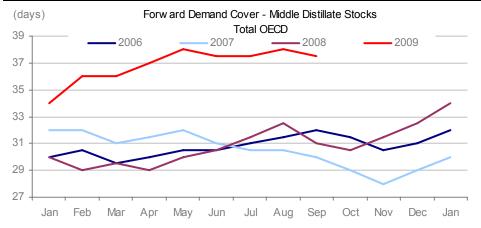
Company	Country	Location	Capacity addition (Kbpd)	Expected completion
RIL	India	Jamnagar	580	Operational
Sinopec	China	Fujian	160	Operational
CNPC	China	Dushangi	80	Operational
Petrovietnam	Vietnam	Dung Quat	140	Operational
Sinopec	China	Tianjin	200	2010
Marathon	US	Garyville	180	2010
Petrovietnam	Vietnam	Nghi Son	150	2010
Essar	India	Vadinar	110	2010
Sinopec	China	Maoming	130	2010
Sinopec	China	Guangdong	300	2010
CNPC	China	Qinzhou	200	2010
CNPC	China	Jilin	110	2010
CNOOC	China	Huizhou	200	2010
Sinochem	China	Quanzhou	100	2011
Sinochem	China	Ningbo	240	2011
CNPC	China	Tianjin	200	2012
Essar	India	Vadinar	320	2013
IOC	India	Bina, Bhatinda	300	2013
Saudi Aramco	Saudi Arabia	Jubail	400	2013
IOC	India	Paradeep	300	2014
Saudi Aramco	Saudi Arabia	Yanbu	400	2014
CNPC	China	Chanzhou	200	2015
Sinopec	China	Zhejiang	300	NA
CNPC	China	Jieyang	400	NA
CNPC	China	Henan	200	NA
CNPC	China	Liaoyang	110	NA
Saudi Aramco	Saudi Arabia	Ras Tanura	400	NA
Major capacity a	additions		6410	

Source: EIA, IEA, IIFL Research

Middle-distillate inventories remain high on weakness in demand in US and Western Europe. IEA points out large build up of refined products in floating storage in Asia-Pacific in the recent months. OECD days of

forward cover are unlikely to come down significantly in the near term on weak economic revival.

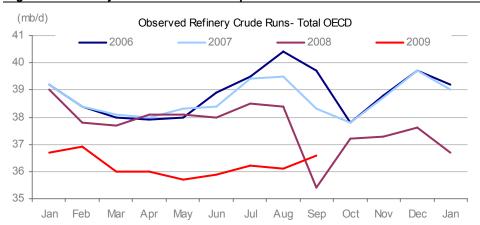
Figure 25: Middle-distillate stocks remain high



Source: IEA, IIFL Research

Falling demand and sharply higher middle-distillate inventories have been weighing on refinery crude runs.

Figure 26: Refinery crude runs remain depressed on bloated stocks

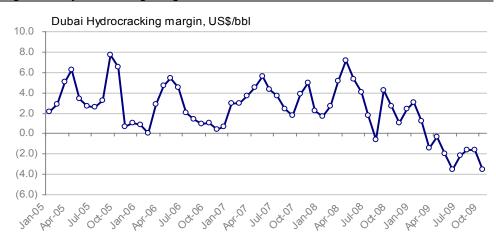


Source: IEA, IIFL Research



Refining margins continue to trend downwards on product surplus and increasing supply-demand mismatch. Hydroskimming margins remain heavily negative in Asia. Hydrocracking margins have also turned into negative territory.

Figure 27: Hydrocracking margins continue to trend downwards



Source: IEA, IIFL Research

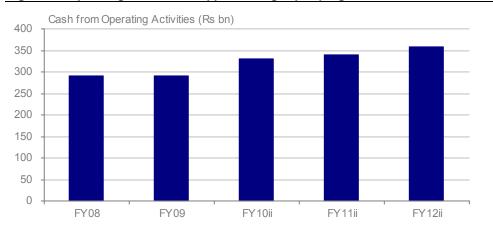
# Muted earnings growth but strong cash generation

Domestic production in the near term will be incremented by ONGC's 30% PI in Cairn's Rajasthan fields. However, the project is expected to be negative NPV for ONGC as it has to bear 20% royalty on the entire production from the fields. Management expects the shallow discoveries in the East Coast hub to go on stream by FY12. Management expects gas production from KG-DWN-98/2 to commence from CY2013 and ramp up to 100mmscmd by CY2016. Much of the incremental new production will compensate for the decline in ONGC's top 15 fields that account for 80% of its annual production.

OVL's growth over FY10-12ii is likely to be driven by ramp up in production in Imperial Energy and BC-10, and likely commissioning of gas blocks A1 and A3 in Myanmar. We have factored in average crude price of US\$69/bbl in FY10 followed by US\$70/bbl in FY11ii. We expect consolidated EPS to grow at CAGR of 3% over FY09-12ii.

We expect ONGC to generate Rs330bn pa of operating cash flows over FY10-12ii at net realised crude price of US\$51/bbl post subsidies. This will help ONGC further its exploration programme in the NELP blocks as we expect the company to increase allocation for seismic surveys and exploratory drilling in the medium term.

Figure 28: Operating cash flows support strong capex programme



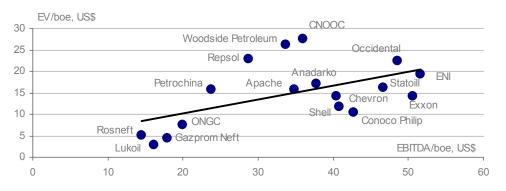
Source: Company, IIFL Research

# We value ONGC at Rs1,344/share, initiate with BUY

We have valued ONGC by sum of parts. In valuing ONGC standalone, we have mapped EV/Boe to EBITDA/Production for regional and global players. EBITDA/Production gives us a measure of profitability of any E&P company. We expect a linear relationship between EV/Boe and EBITDA/production i.e. higher profitability per unit of production should result in higher value of a company's reserves. In order to adjust for one full economic cycle, we have considered a 5-year average of EBITDA/Production for each company (FY05-09 to factor in one full crude price cycle). We then use ONGC's EBITDA/Production discount to global peers (averaged out over the same period) to arrive at the discount that it should trade on EV/Boe. We have then applied this discount to ONGC's standalone proved reserves.



Figure 29: ONGC trades at a discount to global peers owing to lower profitability



Source: Companies, IIFL Research

Figure 30: ONGC's profitability is half of global average

Country	Company	EV	Proved	EV/Boe	EBITDA/Boe
		(US\$ m)	reserves	(US\$)	(US\$)
			(mmboe)		Avg. of FY05 to FY09
US	Exxon Mobil	322,434	22800	14.1	50.6
US	Chevron	160,401	11196	14.3	40.4
Europe	Shell	128,584	10915	11.8	40.8
US	Conoco Philip	103,411	9975	10.4	42.7
US .	Apache	38,423	2441	15.7	34.8
US	Occidental	66,977	2978	22.5	48.6
US .	Anadarko	38,920	2277	17.1	37.7
Australia	Woodside	34,944	1328	26.3	33.7
China	Petrochina	336,325	21,420	15.7	23.8
China	CNOOC	69,150	2515	27.5	36.0
Italy	ENI	128,267	6600	19.4	51.6
Norway	Statoil	88,280	5456	16.2	46.7
Spain	Repsol	50,729	2210	23.0	28.7
Global average				18.0	39.7
India	ONGC	52,225	6956	7.5	20.0
<b>ONGC</b> discount	to global average				50%
ONGC EV/Boe				9.1	

Source: Companies, IIFL Research

In valuing OVL, we have treated reserves in Russia, Sudan and rest of the world differently. Russia has a very harsh fiscal regime wherein it levies mineral extraction tax of 17% on crude realisations above Urals blend price of US\$9/bbl, and export tax of 65% on Urals blend price above US\$25/bbl. Hence, Russian E&P universe trades at EV/Boe of US\$4.1, at a sharp discount to global average of US\$18. We have valued OVL's proved reserves in Russia using the EV/Boe of the Russian E&P universe.

Figure 31: Russian E&P companies trade at very low EV/Boe

Country	Company	EV (US\$ m)	Proved reserves (mmboe)	EV/Boe (US \$)	EBITDA/Production (US\$)
					Average of FY08 and FY09
Russia	Rosneft	112,033	22307	5.0	14.5
Russia	Gazprom Neft	29,991	6808	4.4	17.9
Russia	Lukoil	55,372	19300	2.9	16.1
Russia av	erage			4.1	16.2

Source: Companies, IIFL Research

OVL's footprint in Sudan is next in size to that in Russia. While realisations on Sudan crude are in line with international prices, political instability in the country increases its risk profile. Hence, we have valued Sudan's reserves at the same EV/Boe that we have used to value ONGC standalone reserves.

The remaining reserves of OVL have been valued at the EV/Boe enjoyed by the global players whose realisations are linked to international crude prices.

We have valued MRPL at 1x FY11ii BV, and factored in ONGC's 71.6% stake. The value of MRPL stake works out to Rs17.1/share.

We have also incorporated the value of ONGC's holdings in IOC, GAIL, and PLNG after incorporating holding company discount of 20%. The value of ONGC's investments works out to Rs24.5/share.



Figure 32: Our target price for ONGC is 1,344/share

1P (mmboe)	EV/bbl (US \$)	EV (US \$m)	Rs/share
5563	9.1	50510	1086
953	4.1	3906	84
201	9.1	1825	39
239	18.0	4299	92
			216
			17
			24
			1344
	5563 953 201	5563       9.1         953       4.1         201       9.1	5563     9.1     50510       953     4.1     3906       201     9.1     1825

Source: IIFL Research

We initiate coverage on ONGC with BUY rating and target price of Rs1,344/share.

Figure 33: ONGC- key assumptions

	Unit	FY08	FY09	FY10ii	FY11ii	FY12ii
Exchange Rate	Rs/\$	40.1	46.5	46.0	46.0	46.0
Crude Price						
Brent	\$/bbl	82.3	84.9	69.0	70.0	75.0
Subsidy burden	\$/bbl	30.4	35.3	17.1	18.6	24.7
Post subsidy realization	\$/bbl	51.9	49.5	51.9	51.4	50.3
Avg. Gas Price realization	Rs/'000 CM	3513.9	3678.3	5040.0	5040.0	5040.0
Crude Production						
Domestic	000 MT	24076	22875	22724	23930	24844
ONGC Videsh	000 MT	6,840	6,556	7,101	8,083	8,279
Gas Production						
Domestic	million M3	20,428	20,533	21,170	21,299	21,415
ONGC Videsh	million M3	1,962	2,220	2,372	2,372	3,860
EBITDA						
Domestic	\$/boe	24.2	21.8	24.7	24.8	25.2
ONGC Videsh	\$/boe	34.4	31.0	25.3	26.7	25.8
MRPL GRM	\$/bbl	6.8	8.7	3.3	4.1	5.1

Source: IIFL Research

Figure 34: ONGC EPS sensitivity to crude price

Sensitivity Table	9	ĺ		-		-	
Crude price, \$/bbl	40	50	60	70	80	90	100
EPS FY10ii	47.2	67.2	87.3	94.1	101.0	107.9	114.8
EPS FY11ii	47.9	68.6	89.4	95.9	102.4	108.9	115.4
EPS FY12ii	49.7	70.9	92.1	97.9	103.7	109.5	115.4

Source: IIFL Research



# Financial summary

Income statement summary (Rs m)

medine statement summary	(110 111)				
Y/e 31 Mar	FY08A	FY09A	FY10ii	FY11ii	FY12ii
Revenue	967,822	1,045,884	1,029,592	1,083,128	1,150,274
EBITDA	404,743	416,899	429,482	446,198	468,176
EBIT	265,865	262,595	263,899	267,607	276,099
Interest expense	-1,135	-2,385	-1,384	-1,384	-1,384
Exceptional items	-930	763	0	0	0
Others items	45,411	50,721	45,680	57,153	69,825
Profit before tax	309,211	311,695	308,194	323,376	344,540
Tax expense	-106,999	-110,093	-107,861	-117,633	-127,803
Minorities and others	-3,489	-3,648	-444	-661	-1,082
Net profit	198,723	197,953	199,889	205,082	215,655

Cash flow summary (Rs m)

Y/e 31 Mar	FY08A	FY09A	FY10ii	FY11ii	FY12ii
Profit before tax	309,211	311,695	308,194	323,376	344,540
Depreciation & Amortisation	138,878	154,246	165,584	178,591	192,077
Tax paid	-106,999	-110,093	-107,861	-117,633	-127,803
Working capital $\Delta$	3,904	4,825	16,465	-1,410	-1,383
Other operating items	-61,969	-15,821	-51,138	-44,530	-48,859
Operating cash flow	290,289	289,977	331,244	338,393	358,572
Capital expenditure	-153,867	-291,729	-201,257	-210,160	-211,160
Free cash flow	136,422	-1,752	129,987	128,233	147,412
Investments	-8,989	10,018	25	0	0
Debt financing/disposal	-5,983	49,676	-59,667	0	0
Dividends paid	-80,076	-80,076	-79,956	-82,033	-86,262
Other items	-1,135	-2,385	-1,384	-1,384	-1,384
Net change in cash & cash equivalents	43,780	-24,626	-10,996	44,816	59,766

Source: Company data, IIFL Research

Balance sheet summary (Rs m)

Y/e 31 Mar	FY08A	FY09A	FY10ii	FY11ii	FY12ii
Cash & cash equivalents	186,525	156,331	145,336	190,151	249,918
Sundry debtors	70,469	71,814	69,547	73,932	77,930
Trade Inventories	72,985	65,424	62,678	66,158	69,775
Other current assets	152,105	220,084	185,270	189,689	193,941
Fixed assets	700,903	885,517	987,027	1,084,444	1,174,087
Intangible assets	25,777	114,039	108,067	105,025	101,983
Other assets	44,821	34,803	34,779	34,779	34,779
Total assets	1,253,585	1,548,011	1,592,703	1,744,177	1,902,412
Sundry creditors	167,214	200,232	179,340	190,214	200,699
Other current liabilities	67,913	82,158	80,193	80,193	80,193
Long-term debt/Convertibles	9,445	65,591	5,924	5,924	5,924
Other long-term liabilities	216,700	263,682	270,519	287,410	304,685
Networth	780,866	922,235	1,042,168	1,165,218	1,294,611
Total liabilities & equity	1,253,585	1,548,011	1,592,703	1,744,177	1,902,412

Ratio analysis

FY08A	FY09A	FY10ii	FY11ii	FY12ii
17.7	8.1	-1.6	5.2	6.2
11.8	3.0	3.0	3.9	4.9
9.7	-1.2	0.5	1.4	3.2
41.8	39.9	41.7	41.2	40.7
27.5	25.1	25.6	24.7	24.0
20.6	18.9	19.4	18.9	18.7
40%	40%	40%	40%	40%
34.6	35.3	35.0	36.4	37.1
-22.7	-9.8	-13.4	-16	-19
26.3	24.5	21.4	19.3	18.1
21.1	19.2	17.8	17.0	16.2
	17.7 11.8 9.7 41.8 27.5 20.6 40% 34.6 -22.7 26.3	17.7 8.1 11.8 3.0 9.7 -1.2 41.8 39.9 27.5 25.1 20.6 18.9 40% 40% 34.6 35.3 -22.7 -9.8 26.3 24.5	17.7     8.1     -1.6       11.8     3.0     3.0       9.7     -1.2     0.5       41.8     39.9     41.7       27.5     25.1     25.6       20.6     18.9     19.4       40%     40%     40%       34.6     35.3     35.0       -22.7     -9.8     -13.4       26.3     24.5     21.4	17.7     8.1     -1.6     5.2       11.8     3.0     3.0     3.9       9.7     -1.2     0.5     1.4       41.8     39.9     41.7     41.2       27.5     25.1     25.6     24.7       20.6     18.9     19.4     18.9       40%     40%     40%     40%       34.6     35.3     35.0     36.4       -22.7     -9.8     -13.4     -16       26.3     24.5     21.4     19.3

Source: Company data, IIFL Research



# **ONGC Videsh**

# Imperial Energy - Impact of Russian Fiscal Regime

Russia has a harsh fiscal regime making it unattractive for international players

- Russian crude is benchmarked to Urals Crude which trades at an average discount of 2-5% to Brent Crude.
- For Urals Blend above US\$9/bbl, average rate of Mineral Extraction Tax (MET) is nearly 17%. MET has replaced royalty and resource replacement tax from previous fiscal regime.
- Export duties are applicable for export to areas outside Customs Union of Russia (Russia, Belarus, Kazakhstan, Kirgizstan, and Tadzhikistan). The duty has a slab structure. For Urals blend >US\$25/bbl, export duty is nearly 65%
- The net realised price for produced crude is very low due to high export duty.

Figure 35: Highlights of Russian fiscal regime

		Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Urals Blend	US\$/bbl	60	70	80	90	100
Mineral Extraction Tax	US\$/bbl	8	10	12	13	15
Export Taxes	US\$/bbl	34	39	44	50	55
Net Realised Price	US\$/bbl	18	21	24	27	30

Source: Industry, IIFL Research

# List of all exploration acreage of OVL

Figure 36: Exploration acreages of OVL

Project name	PI	Operator	Country
BM-S-73, BM-ES-42	100%	OVL	Brazil
Nemed	33%	Shell	Egypt
Block 8	100%	OVL	Iraq
A1	20%	Daewoo	Myanmar
A3	20%	Daewoo	Myanmar
Block NC 189	49%	TPOC	Libya
Farsi	40%	OVL	Iran
Block 24	60%	JV (OVL & IPR)	Syria
Block 6 North Ramadan	70%	JV (OVL & IPR)	Egypt
Block 34 & 35	100%	OVL	Cuba
Blocks 24,25,26,27,29,35A,36	30%	Norsk Hydro	Cuba
MTPN Block	20%	ENI	Conga
Block 81-1	100%	OVL	Libya
Block 127 &128	100%	OVL	Vietnam
San-Tome & PR.JDZ Block 2	14%	Sinopec	Nigeria
Block OPL 279	46%	OMEL	Nigeria
Block OPL 285	64%	OMEL	Nigeria
Contract Area 43	100%	OVL	Libya
BM-BAR-1	25%	Petrobras	Brazil
BM-SEAL-4	25%	Petrobras	Brazil
RC-8	40%	OVL	Columbia
RC-9	50%	Ecopetrol	Columbia
RC-10	50%	OVL	Columbia
CPO-5	100%	OVL	Columbia
SSJN-7	50%	PSE	Columbia

Source: Company, IIFL Research



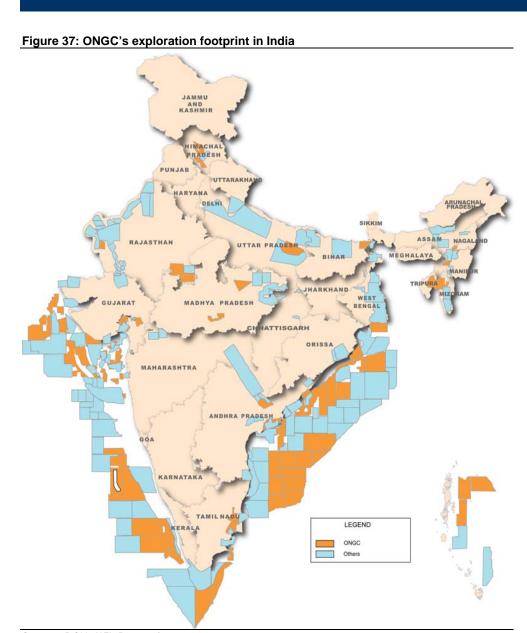


Figure 38: ONGC is yet to explore 33 blocks in proven basins in India

rigure 38. ONGC is yet to exp			=
Block	PI	Basin	Exploratory Wells
KG-DWN-98/2	90%	KG Offshore	14
KG-DWN-98/4	85%	KG Offshore	2
KG-DWN-98/5	100%	KG Offshore	1
MB-OSN-97/4	80%	Mumbai Offshore	2
CY-OSN-2000/1	100%	Cauvery	1
CY-OSN-2000/2	100%	Cauvery	2
MB-DWN-2000/1	80%	Mumbai Offshore	0
MB-DWN-2000/2	40%	Mumbai Offshore	1
MB-OSN-2001/1	75%	Mumbai Offshore	5
AA-ONN-2001/1	100%	Assam Arakan	2
AA-ONN-2001/2	80%	Assam Arakan	0
AA-ONN-2001/3	85%	Assam Arakan	0
AA-ONN-2001/4	100%	Assam Arakan	0
CB-ONN-2001/1	75%	Cambay	6
CY-DWN-2001/1	80%	Cauvery	0
AA-ONN-2002/4	90%	Assam Arakan	
CB-ONN-2002/1	70%	Cambay	3
CY-ONN-2002/2	60%	Cauvery	0
KG-DWN-2002/1	70%	KG Offshore	2
CB-OSN-2003/1	100%	Cambay	2
CY-DWN-2004/1	70%	Cauvery	0
CY-DWN-2004/2	70%	Cauvery	0
CY-DWN-2004/3	70%	Cauvery	0
CY-DWN-2004/4	70%	Cauvery	0
CY-PR-DWN-2004/1	70%	Cauvery	0
CY-PR-DWN-2004/2	70%	Cauvery	0
KG-DWN-2004/1	70%	KG Offshore	0
KG-DWN-2004/2	60%	KG Offshore	0
KG-DWN-2004/3	70%	KG Offshore	0
KG-DWN-2004/5	50%	KG Offshore	0
KG-DWN-2004/6	60%	KG Offshore	0
KG-OSN-2004/1	55%	KG Onshore	0

Source: DGH, IIFL Research



Block	PI	Basin	<b>Exploratory Wells</b>
CB-ONN-2004/1	50%	Cambay	0
CB-ONN-2004/2	50%	Cambay	0
CB-ONN-2004/3	40%	Cambay	0
CB-ONN-2004/4	50%	Cambay	0
CY-ONN-2004/1	80%	Cauvery	0
CY-ONN-2004/2	80%	Cauvery	0
KG-DWN-2005/1	70%	KG Offshore	0
AA-ONN-2005/1	NA	Assam Arakan	0
KG-OSN-2005/1	60%	KG Offshore	0
CB-ONN-2005/4	NA	Cambay	0
CB-ONN-2005/10	NA	Cambay	0
MB-OSN-2005/5	NA	Mumbai Offshore	0
MB-OSN-2005/6	NA	Mumbai Offshore	0
KG-OSN-2005/2	60%	KG Offshore	0
MB-OSN-2005/1	NA	Mumbai Offshore	0

Source: DGH, IIFL Research



### Key to our recommendation structure

**BUY** - Absolute - Stock expected to give a positive return of over 20% over a 1-year horizon.

SELL - Absolute - Stock expected to fall by more than 10% over a 1-year horizon.

In addition, **Add** and **Reduce** recommendations are based on expected returns relative to a hurdle rate. Investment horizon for **Add** and **Reduce** recommendations is up to a year. We assume the current hurdle rate at 10%, this being the average return on a debt instrument available for investment.

Add - Stock expected to give a return of 0-10% over the hurdle rate, ie a positive return of 10%+.

Reduce - Stock expected to return less than the hurdle rate, ie return of less than 10%.

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