LatAm Credit Strategy
Oil & Gas sector update

Fixed Income

Latin America
Corporate Credit

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Weaker credit metrics in 2Q16, but better outlook likely for FY17

LatAm oil & gas generally reported deterioration in credit metrics, although Petrobras' credit metrics remained stable. Ecopetrol's leverage ratios increased on higher debt and lower LTM EBITDA but remain within a comfortable range. Pemex credit metrics deteriorated on weaker EBITDA. The three issuers are focusing on cutting costs and Capex. Looking ahead, a better pricing environment, and further cost improvement could result in stable or improving credit metrics. Additionally, we await results of asset sales for the sector. In this report, we discuss the oil sector outlook, issuances and maturities, and these three oil quasi-sovs. We published on LatAm quasi-sovs, comparing bond pricings and yields vs Sov across different sectors 11-Aug (Report).

Ecopetrol: outlook Stable

Decreasing production and weaker oil prices have weighed on EBITDA and caused leverage ratios to increase from 4Q15 through 2Q16. Looking ahead for FY16, we believe stringent cost cutting initiatives, lower capex and higher oil prices than in 2Q16 will enable Ecopetrol to maintain stable leverage ratios for FY16. Assuming Ecopetrol FY16 EBITDA of approximately US$5-5.5 bn will likely lead to Gross and Net leverage ratios of 3.1- 3.4x and 2.4-2.7x, respectively (vs 3.4x and 2.9x 2Q16). Ecopetrol may lever up in FY17 to invest in E&P, in our view, if oil prices cooperate, but for the time being, the plan is to shift Capex over from midstream. We upgrade the '43s on Relval.

Petrobras Credit: outlook Stable, most preferred

We maintain our Stable outlook on Petrobras. Leverage remained almost stable at 6.2x and 5.2x Gross and Net leverage ratios in 2Q16 respectively. We believe a better pricing environment, enhanced refining profitability and stronger BRL than in 2Q16 will help boost EBITDA. We think Petrobras' liquidity is adequate and likely to improve as well. The liquidity ratio (which we define as LTM EBITDA + Cash / ST debt + LTM interest expense) of 2.2x at 2Q16 seems adequate, and even if we cut Petrobras' EBITDA in half, the liquidity ratio would be 1.4x, implying Petrobras would still be able to meet its near-term financial obligations. Furthermore, management is improving the company's liquidity and external debt maturity profile, and asset sales appear to be moving forward. Consequently, we remain comfortable with the credit. We would like to see stronger EBITDA growth, cash generation and approval of key Brazil economic reforms before becoming more positive. We could also revise our outlook if the BRL weakens significantly without Petrobras increasing prices, if domestic prices at the pump are reduced, or if international oil prices drop. Petrobras is a most preferred in LatAm.

Pemex: outlook Negative

We believe there is a high risk that Pemex leverage ratios increase in FY16 due to pressure on EBITDA and capex requirements, although a lot depends on oil prices. We believe the US$100 bn budget savings plan could be at risk if insufficient bids materialize during the next auction and Pemex then has to increase capex to invest itself. There is also execution risk on opex savings. Consequently, we reiterate our Negative outlook on the issuer, although we believe a near-term credit rating downgrade is unlikely. However, we believe recent assumption of MXN184 bn (US$10.2 bn) in Pemex's pension liabilities by the government and MXN47 bn (US$2.6 bn) in exchange of promissory notes for government bonds is credit positive and supports our notion that the government will support Pemex when required.

LatAm Oil & gas Equity views

LatAm Oil & Gas equity analyst, Luiz Carvalho initiated coverage of Petrobras on 18-Jul-16 with Buy ratings (Report) and of Ecopetrol on 15-Aug-16 with Sell ratings. (Report).

ECOPET and PEMEX bond recommendations

Ticker	Rank	Rating	Coupon %	O/S Amt (US$, mn)	Maturity	Mid-price (US$)	Mid Z-Spread, bps	YTW %	Company Outlook	Current UBS recommendation	Previous UBS recommendation
ECOPET	Sr Unsecured	Baa3/BBB/BBB	7.625	1,498	7/23/2019	115.0	124	2.3	Stable	Underperform	Underperform
	Sr Unsecured	Baa3/BBB/BBB	5.875	1,800	9/18/2023	109.1	309	4.4		Marketperform	Marketperform
	Sr Unsecured	Baa3/BBB/BBB	4.125	1,200	1/16/2025	98.1	306	4.4		Marketperform	Marketperform
	Sr Unsecured	Baa3/BBB/BBB	5.375	1,500	6/26/2026	103.7	351	4.9		Marketperform	Marketperform
	Sr Unsecured	Baa3/BBB/BBB	7.375	850	9/18/2043	108.5	506	6.7		Outperform	Marketperform
	Sr Unsecured	Baa3/BBB/BBB	5.875	2,000	5/28/2045	94.4	465	6.3		Marketperform	Marketperform
PEMEX	Sr Unsecured	Baa3/BBB+/BBB+	5.75	2,484	3/1/2018	105.2	129	2.2	Negative	Marketperform	Marketperform
	Sr Unsecured	Baa3/BBB+/BBB+	3.5	1,000	7/18/2018	102.2	132	2.3		Marketperform	Marketperform
	Sr Unsecured	Baa3/BBB+/BBB+	5.5	750	2/4/2019	106.6	171	2.7		Marketperform	Marketperform
	Sr Unsecured	Baa3/BBB+/BBB+	8	1,937	5/3/2019	113.3	183	2.8		Marketperform	Marketperform
	Sr Unsecured	Baa3/BBB+/BBB+	6	995	3/5/2020	109.3	214	3.2		Marketperform	Marketperform
	Sr Unsecured	Baa3/BBB+/BBB+	3.5	1,455	7/23/2020	101.7	196	3.0		Marketperform	Marketperform
	Sr Unsecured	Baa3/BBB+/BBB+	5.5	808	1/21/2021	103.8	341	4.5		Marketperform	Marketperform
	Sr Unsecured	Baa3/BBB+/BBB+	6.375	1,250	2/4/2021	110.9	258	3.7		Marketperform	Marketperform
	Sr Unsecured	Baa3/BBB+/BBB+	4.875	2,097	1/24/2022	104.9	268	3.9		Marketperform	Marketperform
	Sr Unsecured	Baa3/BBB+/BBB+	3.5	2,100	1/30/2023	97.2	275	4.0		Marketperform	Marketperform
	Sr Unsecured	Baa3/BBB+/BBB+	4.875	1,499	1/18/2024	104.6	286	4.1		Marketperform	Marketperform
	Sr Unsecured	Baa3/BBB+/BBB+	4.25	997	1/15/2025	100.3	287	4.2		Marketperform	Marketperform
	Sr Unsecured	Baa3/BBB+/BBB+	4.5	1,487	1/23/2026	100.7	302	4.4		Marketperform	Marketperform
	Sr Unsecured	Baa3/BBB+/BBB+	6.875	3,000	8/4/2026	116.6	337	4.8		Marketperform	Marketperform
	Sr Unsecured	Baa3/BBB+/BBB+	6.625	456	6/15/2035	108.9	425	5.8		Marketperform	Marketperform
	Sr Unsecured	Baa3/BBB+/BBB+	6.5	3,000	6/2/2041	107.0	432	6.0		Marketperform	Marketperform
	Sr Unsecured	Baa3/BBB+/BBB+	5.5	4,245	6/27/2044	95.7	416	5.8		Marketperform	Marketperform
	Sr Unsecured	Baa3/BBB+/BBB+	6.375	3,000	1/23/2045	105.9	429	5.9		Marketperform	Marketperform
	Sr Unsecured	Baa3/BBB+/BBB+	5.625	2,993	1/23/2046	97.1	417	5.8		Marketperform	Marketperform

Source: UBS, Bloomberg pricing as of 18-Aug-16;

PETBRA bond recommendations

Ticker	Rank	Rating	Coupon %	O/S Amt*	Maturity	Mid-price (US$)	Mid Z-Spread, bps	YTW %	Company Outlook	Current UBS recommendation	Previous UBS recommendation
PETBRA	Sr Unsecured	B3/B+/BB	3.5	625	2/6/2017	100.6	120	2.1	Stable	Marketperform	Marketperform
USD	Sr Unsecured	B3/B+/BB	3.25	283	3/17/2017	100.6	124	2.1		Marketperform	Marketperform
Bonds	Sr Unsecured	B3/B+/BB	5.875	545	3/1/2018	104.2	208	3.0		Marketperform	Marketperform
	Sr Unsecured	B3/B+/BB	3	1,453	1/15/2019	96.5	355	4.6		Outperform	Outperform
	Sr Unsecured	B3/B+/BB	7.875	1,814	3/15/2019	107.3	380	4.8		Marketperform	Marketperform
	Sr Unsecured	B3/B+/BB	5.75	2,500	1/20/2020	101.3	428	5.3		Outperform	Outperform
	Sr Unsecured	B3/B+/BB	4.875	1,500	3/17/2020	99.1	407	5.1		Outperform	Outperform
	Sr Unsecured	B3/B+/BB	5.375	5,250	1/27/2021	97.4	494	6.1		Outperform	Outperform
	Sr Unsecured	B3/B+/BB	8.375	6,750	5/23/2021	108.6	512	6.3		Marketperform	Marketperform
	Sr Unsecured	B3/B+/BB	4.375	3,500	5/20/2023	89.1	514	6.4		Outperform	Outperform
	Sr Unsecured	B3/B+/BB	6.25	2,500	3/17/2024	98.3	524	6.5		Outperform	Outperform
	Sr Unsecured	B3/B+/BB	8.75	3,000	5/23/2026	110.3	590	7.3		Outperform	Outperform
	Sr Unsecured	B3/B+/BB	6.875	1,500	1/20/2040	90.1	620	7.8		Underperform	Underperform
	Sr Unsecured	B3/B+/BB	6.75	2,250	1/27/2041	89.2	613	7.7		Underperform	Underperform
	Sr Unsecured	B3/B+/BB	5.625	1,750	5/20/2043	80.1	570	7.3		Underperform	Underperform
	Sr Unsecured	B3/B+/BB	7.25	1,000	3/17/2044	92.8	628	7.9		Underperform	Underperform
	Sr Unsecured	B3/B+/BB	6.85	2,500	6/5/2115	83.6	659	8.2		Underperform	Underperform
EUR	Sr Unsecured	B3/B+/BB	2.75	540	1/15/2018	100.0	297	2.8		Marketperform	Marketperform
Bonds	Sr Unsecured	B3/B+/BB	4.875	574	3/7/2018	102.8	318	3.0		Marketperform	Marketperform
	Sr Unsecured	B3/B+/BB	3.25	1,300	4/1/2019	99.0	385	3.6		Marketperform	Marketperform
	Sr Unsecured	B3/B+/BB	3.75	750	1/14/2021	96.2	488	4.7		Outperform	Outperform
	Sr Unsecured	B3/B+/BB	5.875	600	3/7/2022	102.0	556	5.4		Outperform	Outperform
	Sr Unsecured	B3/B+/BB	4.25	700	10/2/2023	92.0	564	5.6		Outperform	Outperform
	Sr Unsecured	B3/B+/BB	4.75	800	1/14/2025	91.3	599	6.1		Outperform	Outperform

Source: UBS, Bloomberg pricing as of 18-Aug-16; *In US$, mn for USD bonds and EUR, mn for Euro bonds

Oil sector overview

UBS oil view (18-Jul-16)

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Market outlook

In the absence of any intervention by OPEC, we expect that the laws of economics will slowly correct the oil market along its pathway of readjustment. 2015 saw an impressive year for demand growth at +1.6Mb/d as price and wealth impacts worked their way through and preliminary 1H16 demand data indicates y/y growth of 1.3Mb/d. While 3Q16 face a tough y/y comp, 4Q likely benefits from some normalisation of weather, driving FY demand growth of ~1.3Mb/d. 2017 likely sees something closer to trend at 1.2Mb/d as the price continues to rise and facing macroeconomic headwinds in Europe. On the supply-side, non-OPEC output is now reflecting the impact of a swathe of capex cuts – initially in the US (crude output down 330kb/d in 1Q16 vs peak y/y growth of 1.4Mb/d in 4Q14). 2017 likely sees US crude bottom in 1Q as WTI >$50/bbl incentivises a recovery in onshore drilling activity but then longer-cycle output elsewhere begins to pick up the burden of rebalancing. 2015 saw just 6 major upstream projects totalling ~0.6Mb/d plateau liquids production reach FID vs the ~3-4Mb/d average and 2016 looks similar with just one major project sanctioned ytd – creating a potential 4Mb/d 'hole' in 2020+ supply. In the absence of a clear price anchor we believe that while oversupply persists crude will likely trade in a wide range between cash costs of current supply at $30/bbl and lower and the long-run marginal cost at $60-80/bbl (likely in the upper half of that range, set by conventional supply rather than US shale). Reflecting the prolonged over-supply, OECD inventories are at record highs although we anticipate that the market is now close to balance (after a 2Q16 plagued by production outages) and that sustained inventory drawdowns will begin in 2H17. With spare capacity ~1.5Mb/d below historic norms we contend that higher-than-normal inventory levels are warranted. In the longer term the market needs to incentivise sufficient new supply which will require a pick-up in activity in non-US/non-OPEC where we believe the marginal barrel lies. Cost reductions continue to work through the upstream, and while some of this is cyclical, there is growing evidence that operators are implementing overdue structural change which will be more persistent. This will not be easy however – sustaining historic rates of return at our long-term forecast of $75/bbl will require reductions of ~40% in unit development capex vs 2014 levels.

Upside scenario

Our base case scenario assumes no intervention from OPEC – we are sceptical about the group's capacity to reduce output in the absence of unanimity. If OPEC were to step in however it would likely target >$70/bbl where the fiscal breakevens lie for the Gulf producers. Geopolitics and interruption to a medium-sized OPEC producer could add $5-10/bbl per 0.5Mb/d disruption: Venezuelan, Nigerian and Libyan output remains volatile. From 2017 the market will require significant US shale growth: our assumption is that operators add rigs as WTI moves sustainably above $50/bbl. If US supply is less responsive than we envisage however (excess cashflows directed towards shoring up balance sheets) then there is a risk the market over-tightens in 2019-20, sending Brent above our LT $75/bbl incentive price and laying the foundations for another cycle.

Downside scenario

While we believe fears of a 'tank-top' scenario have now reduced a filling of physical storage could create distressed pricing– benchmarks would likely fall below $30/bbl. Global GDP growth slipping by 100bps (cf 2014) could impact

demand by ~500kb/d and defer market rebalancing by ~1 year (note there hasn't been a global recession since 2009). While the first order impact of the British referendum result is limited (UK <2% of global oil demand) the wider macroeconomic spillover effects are as yet unclear. A ramp-up from Saudi spare capacity could defer rebalancing until 2018 when non-US, non-OPEC output begins to roll over.

For further details, please see Global Oil report: Monthly Agency Data Snapshot

Oil-Brent forecasts (avg)

Year	UBS forecast (US$/bbl)	Consensus (US$/bbl)
2016e	46.32	45.32
2017e	60.00	56.13
2018e	70.00	64.50
2019e	75.00	69.00

Source: UBS estimates, Bloomberg (18-Jul-16)

LatAm oil and gas sector

Market Commentary

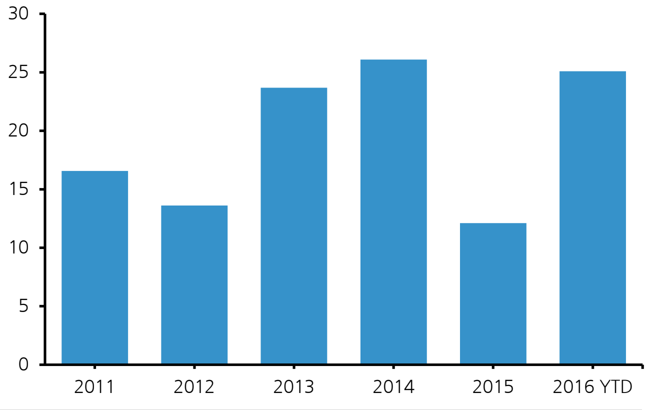
Increased appetite for risk, improved commodity prices, and cash inflows combined with limited EM credit supply have helped drive significant improvement in bond valuations of natural resource companies. ECOPET yields tightened c245bps on average YTD (range 205-200bps). Meanwhile, PEMEX tightened only c170bps as it saw US$12 bn in new issuance during 1Q16, and is generally less volatile than ECOPET in our view. Petrobras was the significant outperformer YTD as yields of PETBRA '17s-'24s tightened c700bps, although an improved view on Petrobras liquidity following announcements of new credit deals, progress on potential asset sales, and the stronger BRL helped. We believe potential oil price improvement in the medium-term, a view of LatAm economic improvement in FY17 and limited supply of paper combined with continued risk-on sentiment could be supportive of large quasi-sovereign oil bond prices.

LatAm Oil & gas: Issuances and Maturities

Oil & gas debt issuance peaked in 2014 and then troughed in 2015 as companies cut back on investment amid low oil prices. Issuance has increased in 2016 with US$25 bn in US$ denominated debt issued YTD (see chart below). Pemex raised US$12 bn YTD, followed by Petrobras with US$9.75 bn; Ecopetrol and Petrobras Argentina each issued US$500 mn (see table of individual bond deals on following page).

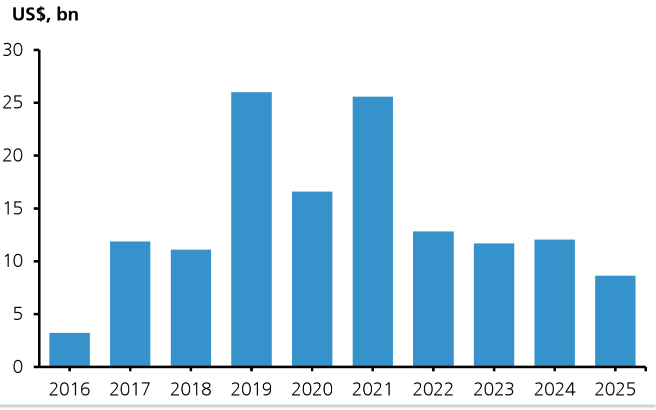
The LatAm oil and gas sector has less than US$15 bn in external debt maturing in each of 2017 and 2018. The next large year of maturities is 2019 with cUS$26 bn due. Pemex is the most indebted issuer in the sector with US$65 bn outstanding (external debt), followed by Petrobras (US$60 bn), PDVSA (US$39 bn), and Ecopetrol (US$15 bn). The sector has c78% of debt denominated in USD.

LatAm Oil&Gas: USD Issuances



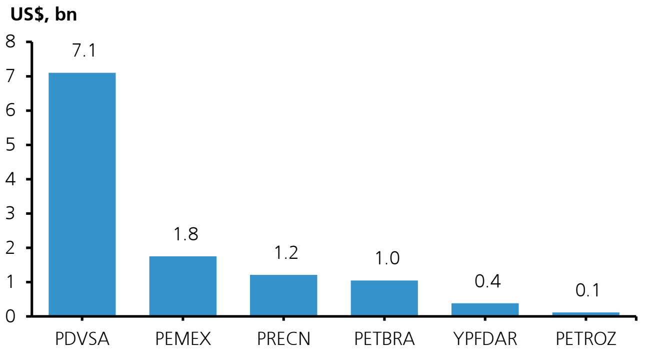
Source: Bond Radar

LatAm Oil&Gas: External Debt Maturities



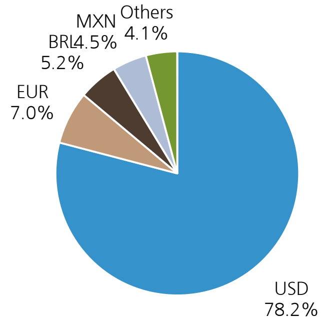
Source: Bloomberg

LatAm Oil&Gas: Top 2017 Maturities by Issuer



Source: Bloomberg

LatAm Oil&Gas: Total debt by Currency



Source: Bloomberg

YTD 2016 USD Issuances: LatAm Oil&Gas

Issuer	Issue date	Coupon	Maturity	Currency	US$, mn
ECOPETROL	8-Jun-16	5.875	18-Sep-23	USD	500
EMPRESA NACIONAL DEL PETROLEO	2-Aug-16	3.75	5-Aug-26	USD	700
PETROBRAS	17-May-16	8.375	23-May-21	USD	5,000
PETROBRAS	17-May-16	8.75	23-May-26	USD	1,750
PETROBRAS	7-Jul-16	8.75	23-May-26	USD	1,250
PETROBRAS	7-Jul-16	8.375	23-May-21	USD	1,750
PETROBRAS ARGENTINA	14-Jul-16	7.375	21-Jul-23	USD	500
PETROLEOS MEXICANOS	28-Jan-16	5.50	4-Feb-19	USD	750
PETROLEOS MEXICANOS	28-Jan-16	6.375	4-Feb-21	USD	1,250
PETROLEOS MEXICANOS	28-Jan-16	6.875	4-Aug-26	USD	3,000
PETROLEOS MEXICANOS	22-Mar-16	4.25	1/15/2025	USD	9,97
PETROLEOS MEXICANOS	22-Mar-16	4.5	1/23/2026	USD	1,486
PETROLEOS MEXICANOS	22-Mar-16	3.5	7/23/2020	USD	1,455
PETROLEOS MEXICANOS	22-Mar-16	5.625	1/23/2046	USD	2,993
YPF	18-Mar-16	8.50	23-Mar-21	USD	1,000
YPF	30-Jun-16	BADLAR+400bp	6-Jul-16	USD	750

Source: Bond Radar

Ecopetrol vs Pemex

Ecopetrol's credit metrics are generally stronger, and Pemex' budget depends significantly upon foreign investment. While Ecopetrol's reserve life is lower, we believe the Colombian company has the ability to help offset reduced oil production through growth in refining. This serves as an effective indirect oil price hedge in our view. If oil prices rebound as UBS analysts expect, new projects would likely provide sufficient returns to merit investment. However, if oil prices decline, Ecopetrol can purchase oil at the lower prices to refine. Consequently, we maintain our Stable outlook on Ecopetrol, and significant risks to Pemex' budget and leverage ratios lead us to reiterate our Negative outlook on the Mexican quasi-sovereign oil company.

We have Marketperform recommendations on most ECOPET and PEMEX bonds. We generally prefer the pickup ECOPET offers despite the general one notch lower credit rating vs Pemex. Moody's rates Ecopetrol and Pemex Baa3, while both S&P and Fitch rate Ecopetrol BBB and Pemex BBB+. However, ECOPET and PEMEX bond yields are now quite similar with the exception of the ECOPET '43s which offer 90bps pickup to PEMEX '44s and 220bps pickup to the COLOM '44s. We maintain our Underperform recommendation on ECOPET '19s which offer 50bps less yield than PEMEX '19s, and offer only 60bps pickup to Colombian Sovereign '19s.

ECOPET YTW pick-up to PEMEX

Ecopetrol bonds	Pemex bonds	Current YTW pick-up, bps
ECOPET $ 7.625%19	PEMEX $ 8%19	-50
ECOPET $ 5.875%23	PEMEX $ 3.5%23	32
ECOPET $ 4.125%25	PEMEX $ 4.25%25	-10
ECOPET $ 5.375%26	PEMEX $ 4.5%26	49
ECOPET $ 7.375%43	PEMEX $ 5.5%44	90
ECOPET $ 5.875%45	PEMEX $ 6.375%45	37

Source: Bloomberg pricing as of 18-Aug-16

2Q16 results, con call highlights, and bond recommendations

Ecopetrol: 2Q16 result summary

In 2Q16 (IFRS), Ecopetrol's Total revenues -29.9% y/y (-16.1% y/y to COP11.7 trn) to US$3.9 bn (+21.8% q/q in US$ and +12.1% q/q in COP terms) on lower export volumes and weaker prices (export sales represented 61% of total vs 39% domestic). In 1H16, Revenues -32.7% y/y to US$7.1 bn.

2Q16 EBITDA -30.9% y/y (-17.3% y/y to COP4.5 trn) to US$1.5 bn (+19.7% q/q in US$ and +10.1% q/q in COP terms). EBITDA margin -50bps y/y to 38.5% (vs. 39.2% in 1Q16). In 1H16, EBITDA -32.9% y/y to US$2.8 bn and EBITDA margin -10bps y/y to 38.8%. Ecopetrol cost savings in 2Q16 reached COP392 bn with COP813 bn total for 1H16 implying the company is on track to achieve its FY16 target of COP1.6 tn. The lifting cost per barrel, excluding royalties, declined by US$2.11 per bbl to US$5.36 per bbl in 2Q16 vis-à-vis US$7.47 per bbl in 2Q15.

2Q16 Gross leverage increased to 3.4x from 2.9x in 1Q16 (vs. 2.0x in 2Q15) as Total debt +3.4% q/q to US$18.3 bn (+3.7% y/y) and LTM EBITDA -11.2% q/q to US$5.4 bn (-39.7% y/y). Net leverage increased to 2.9x from 2.5x (vs. 1.6x in 2Q15). UBS liquidity ratio decreased to 3.3x from 3.7x in 1Q16 (vs. 3.2x in 2Q15). Cash and equivalents +6.6% q/q to US$2.7 bn (-23.9% y/y) on asset sales, a US$300 mn international loan from Export Development Canada (EDC) and the US$500 mn retap of the bonds maturing 2023. Ecopetrol CEO stated that this combined for 85% of Ecopetrol's financing needs for FY16.

Ecopetrol: Conference call highlights

Significant invest in upstream to start from 2017

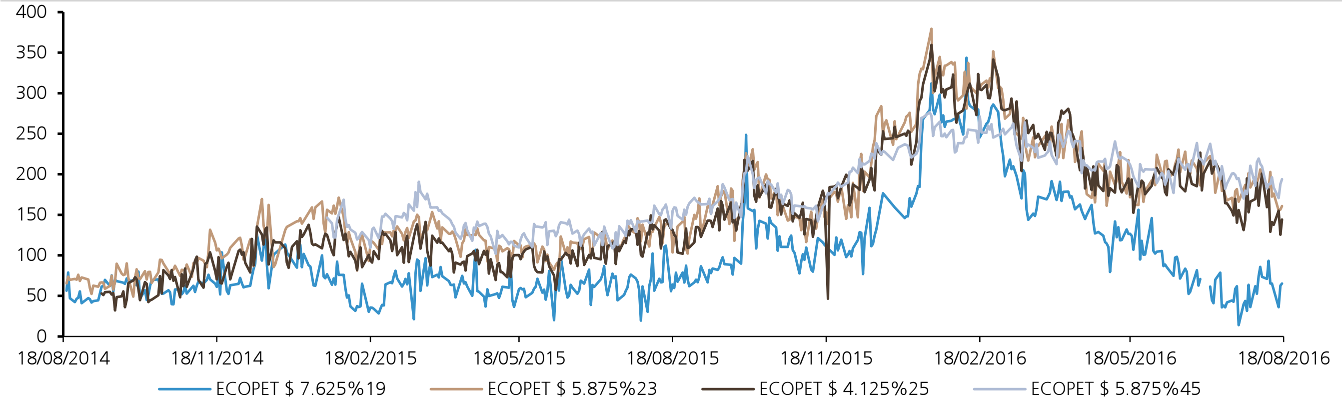
Ecopetrol still targets to maintain cash flows and protect credit ratings. Management believes that oil prices will hover around US$50-55 per bbl range during end-2016 through 2017. Ecopetrol generated COP725 bn from divestments of stakes in ISA, EEB, and 20 minor oil fields. The company operates at 530k bpd with Rubiales adding 56k bpd. Continued efficiency plan resulted in further decline in lifting cost. The increase reported in the Cost of sales is mainly due to a higher purchase price for crude oil and refined products, however, costs were reduced by COP689 mn. 2Q16 net financing was COP932 bn: COP300 bn in loan from Export Development of Canada and COP500 bn from reopening of international bonds. Management mentioned that they have covered 85% of the estimated financing needs of US$1.5 bn to US$1.9 bn for 2016. **Outlook**: In 3Q16, Ecopetrol to focus in the execution of the project activity in Castilla, Rubiales and Castilla fields. New wells discovered in Gulf of Mexico, Colombia offshore and Brazil. Until now, Ecopetrol investments were more in midstream and downstream, but Ecopetrol expects to allocate capex to upstream from 2017-2020. In 2017, Ecopetrol expects to drill 5 offshore wells in Colombia. Optimal operation of Reficar refinery in 2017. 2016 production target: 715k bpd. Ecopetrol targets for 'balanced' oil and gas mix in long-term vs current 85% oil and 15% gas.

ECOPET Bond recommendations

We maintain our Marketperform recommendation on most ECOPET bonds due to fair pickup to Sovereign. Average pickup is now inline with 2-year averages, and low reserve life, decreasing production, and the consequent potential need soon for additional capital for investment remain risks. However, we upgrade the ECOPET '43s to Outperform from Marketperform given YTD underperformance to the belly, 220bps pickup to the Sovereign and 50bps to PEMEX. ECOPET '19s we

rate Underperform due to insufficient pickup to Sovereign and they are trading tighter than PEMEX '19s.

ECOPET YTW pickup to Sov



Source: Bloomberg

Rating agency views on Ecopetrol

Rating agency	Rating	Rating action/Date	Outlook	Agency assumptions	Upgrade trigger	Downgrade trigger	Comments
Moody's	Baa3	Confirms ratings / 4-May-16	Negative	*Even if E&P business remains weak in next couple of years, midstream and downstream businesses will support stable cash flows, enough to sustain financial metrics in credit-prospective levels; *High probability of support from the govt.; *Negative outlook reflects a sustained negative performance in E&P will have a significant negative effect on credit profile in the medium to long term.	*Unlikely in medium term; *Outlook could be stabilized if during 2016, Ecopetrol is able to reverse the trend of sharp decline in production and weak E&P margins on operational and capital efficiencies.	*Failure of reporting EBITDA of around US$4 bn in next 12 months or faces liquidity constraints; *Downgrade of sovereign ratings / change in Moody's assumption about govt. support.	*Capex reduction of 38% in 2016 to around US$3 bn is positive as a measure to protect liquidity; *However, lower capex in 2016 will weaken production, which Moody's expects will decline by over 8% annually in 2016 and 2017; *Longer term, lower capex will also put pressure on the company's reserve replacement, which is critical since Ecopetrol's reserve life as of December 2015 was only 7.4 years.
S&P	BBB	Revised outlook to Negative from Stable and ratings Affirmed / 29-Jan-16	Negative	*Lowered oil and natural gas price assumptions; *Weakening liquidity on lower prices; *Strong govt. links.	NA	NA	*S&P view that further drop in int'l crude oil prices may reduce Ecopetrol's capex plan.
Fitch	BBB	Affirmed / 17-Dec-15	Stable	*Close linkage with Colombian govt.; *FCF to be under pressure in near future, debt continue to rise and leverage to remain at assigned rating category.	*Upgrade of Colombia's sovereign ratings.	*Downgrade of Colombia's sovereign ratings; *Fitch's perception of weakening linkage with govt.	*Historically, Ecopetrol has generated approximately 10% to 15% of government revenues.

Source: Moody's, S&P and Fitch

Ecopetrol: UBS equity view

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We initiated *equity* coverage of Ecopetrol on 15-Aug-16 with a Sell rating and US$6.5/share price target. Our negative view is mainly supported by: 1) a low reserve life of 6.7 years; 2) company's investment focus, with 38% in the Refining business in 2016, reducing its ability to invest in exploratory activity; 3) low visibility

on production growth in the short term; 4) low visibility on dividend payments; and 5) the potential risk of losing its investment grade. The main risk to our negative view on the name is a short-term oil price rebound, given its high leverage to the commodity.

Ecopetrol changed c.80% of its management recently in order to implement a change in company strategy. We believe its focus is changing from volume growth to profitability. However, we believe this might have a negative impact on its reserves and production growth. We think Ecopetrol urgently needs to invest in exploratory activity to increase its short reserve life and guarantee growth in the future. We see risk to its investment grade status, following the Colombian sovereign rating.

2016 will be a transition year, with the focus on Midstream and Downstream investments. The company may not be able to re-focus on exploration activity until 2017. Dividend payments will be limited in the short term, in our view. Lower transportation fees, currently under negotiation, could also have a negative impact on company results. We believe that Ecopetrol shares are likely to be inflated by flows from local pension funds, which have limited high-liquidity options in the Colombian investment market. The main risk to our negative view is a rebound in oil prices, which could increase reserve life and improve operational results. Ecopetrol is highly leveraged to oil prices due to its 100% pass-through domestic pricing policy. We also see a higher recovery factor ratio as a potential threat to our view on the investment case.

Our price target of US$6.5/share (Sell) for Ecopetrol is based on DCF analysis. We assume 2.5% growth for perpetuity and a 7.6% WACC. Our PT is based on our long term $75/Brent price.

For more details, please read our report.

Petrobras: 2Q16 result summary

Production, Sales and Revenues

Revenues decline y/y, but grew q/q

In 2Q16, Total Crude oil and Natural gas production +7% q/q to 2,804 kboed. Domestic oil products output -2% q/q to 1,919 kbbl/d and Sales +3% to 2,109 kbbl/d. In 2Q16 (IFRS), Petrobras' Total revenues -21.7% y/y (-10.8% y/y to BRL71.3 bn) to US$20.4 bn (+13.0% q/q in US$ and +1.4% q/q in BRL terms). In 1H16, Total revenues -26.2% y/y to US$38.3 bn (-8.2% y/y to BRL142 bn) mainly on lower crude oil & oil products export prices, lower power generation, decline in electricity prices and lower domestic natural has sales volume.

Costs and EBITDA

Declining lifting costs and Cost of sales

1H16 Lifting cost (including taxes) in Brazil -26% y/y to US$15.5/bbl. 2Q16 EBITDA -9.9% y/y (+2.8% y/y to BRL20.3 bn) to US$5.8 bn (+7.3% q/q in US$ and -3.7% q/q in BRL terms). The decline in q/q EBITDA in BRL terms was primarily due to BRL1.2 bn cost associated with the New Voluntary Separation Incentive Plan, partly offset by 1.7% q/q decline in Cost of sales. EBITDA margin improved to 28.5% from 24.7% in 2Q15 (vs. 30.0% in 1Q16). In 1H16, EBITDA -19.4% y/y to US$11.2 bn, however EBITDA margin improved to 29.2% from 26.8% in 1H15.

Leverage and Liquidity

Sable leverage ratios

Gross leverage and Net leverage marginally increased to 6.2x and 5.2x in 2Q16 vs. 6.1x and 5.0x in 1Q16 (vs. 5.2x and 4.1x in 2Q15), respectively. The ratios were positively impacted by 1.2% q/q in decline in Total debt to US$124 bn (-7.6% y/y), partially offset by 3.1% q/q decline in LTM EBITDA to US$19.9 bn (-22.4% y/y) and 9.2% q/q decrease in Cash and Short-term investments to US$20.3 bn (-31.1% y/y). UBS liquidity ratio improved to 2.2x from 1.8x in 1Q16 (vs. 2.8x in 2Q15), mainly on 34.3% q/q decline in Short-term debt to US$11.4 bn (-21.0% y/y).

Petrobras: Conference call highlights (12-Aug-16)

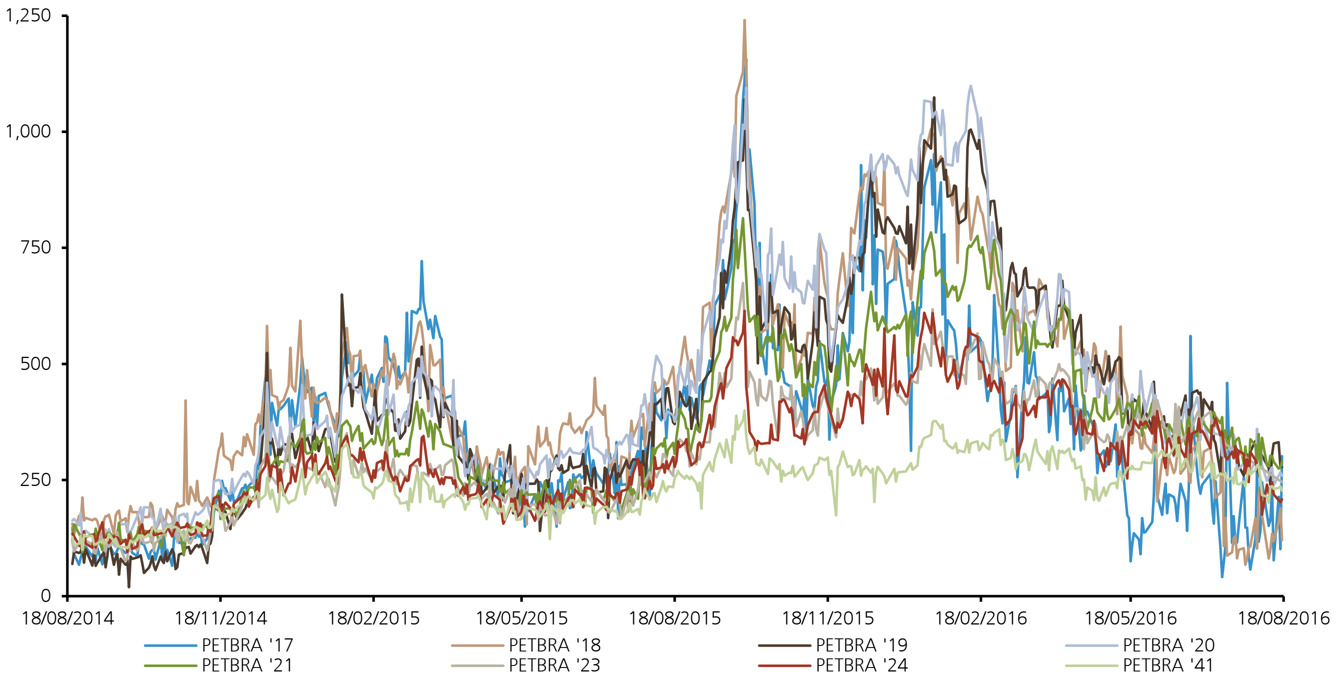
On the call management mentioned that higher production and sales of oil and oil products resulted in increase in revenues offset by reduction in gasoline sales, sale of power due to decline in power generation among others. The fall in imports, increase in exports, better yield and production contributed in Petrobras becoming a net exporter of oil and oil products. Refining cost +8% to US$2.46/bbl. Pre-salt production was at record 1.06 mn bpd. Management stated that the demand for gasoline remained stable q/q where as demand for diesel increased marginally. During the quarter, Petrobras has issued US$6.6 bn and simultaneously bought back US$6.3 bn in bonds, leaving US$3 mn in incremental increase in cash. The company reported 3.5x surge in Free cash flow to BRL10.8 bn. Investments declined 25% to BRL11.2 bn. Capex reduction was lesser than expected and management expects recovery of capex reduction performance in 2H16. 2Q16 Cash position was negatively impacted by Investments (BRL17.5 bn) and Financial expenses & amortizations (BRL30 bn) reduced cash position offset by Operating cash flow (BRL26.7 bn), Divestments (BRL14.6 bn), Rollovers (BRL10.3 bn) and Borrowings (BRL1.8 bn). Management expects US$27.5 bn in 2016 cash.

PETBRA Bond recommendations

We upgraded the following PETBRA US$ bonds to Outperform from Marketperform previously in our 11-Aug-16 Quasi-sov View report: 3% 19, 5.75% 20, 4.875% 20, 5.375% 21. We maintain the 7.875% 19s at Marketperform

given they mature in March (2019 is still a large year of external debt maturities) whereas the 3% 19s mature in January and offer only c25bps lower yield and a lower US$ price. Similarly, we maintain the 8.375% 21s which mature in May at Marketperform given 2021 is another year of high external debt maturities, and the 5.375% 21s mature in January, offer a similar yield and lower US$ price. We upgraded the '23s, '24s and '26s due to compelling yields and higher than average pickup to Sovereign. We also upgraded PETBRA EUR bonds maturing '21-'25 due to high spreads and recommend these for investors limited to investing in EUR denominated bonds.

PETBRA YTW pickup to Sov



Source: Bloomberg

Rating agency views on Petrobras

Rating agency	Rating	Rating action/Date	Outlook	Agency assumptions	Upgrade trigger	Downgrade trigger
Moody's	B3	Assigns to global notes / 7-Jul-16	Negative	*FCF to remain negative due to 1) upstream business suffer from extremely weak oil prices 2) downstream operations suffer from lower demand, high competition and local currency volatility; *Needs substantial asset sales proceeds by 2017 to meet cash needs in the absence of new financing; *May offer security in capital market if needed.	*if the company raises sufficient sums through asset sales or new debt arrangements to refinance its upcoming debt maturities and significantly strengthen its liquidity profile	*Further deterioration in its liquidity profile; *Negative developments from the corruption investigations affecting financial profile.
S&P	B+	Affirmed / 28-Jul-6	Negative	*Successful implementation of divestment plan, reducing debt; *Strong BRL help reduce debt; *Capex cuts, sustained price premium in refining business, focus on profitability over production; *successful liquidity management, and Lower uncertainties from litigation risks	NA	NA
Fitch	BB	Assigns to global notes /17-May-16	Negative	NA	*Sovereign positive rating action	*Sovereign downgrade.

Source: Moody's, S&P and Fitch

Petrobras: UBS equity view

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We believe that the Brazilian Oil & Gas industry is facing a positive and relevant regulatory change that will allow Petrobras to unlock value from some assets and improve investors' risk perception about the company. We believe that current fuels premium is not sustainable in the long term. We expect the company to recover the losses accumulated between 2010 and 2014 and normalize prices in line with international benchmark after that. Petrobras has high correlation to oil prices (0.8) and Brazil risk (FX rate). For each US$10/bbl in oil price we see additional US$1.5bn EBITDA, assuming that company will be able to pass-through international fuels prices to domestic market. For each R$0.20 BRL depreciation we see around R$50cent downside to our valuation.

Buy, R$18.20/sh price target: Our positive view is based on; 1) our expectation of a major improvement in the local regulatory framework that will allow Petrobras to unlock value from its assets and improve investors' risk perception; 2) UBS's view that oil prices will rebound to US$75/bbl by 2019; and 3) strong signals from management that it will run the company in line with the best enterprise interests of the business. However, we acknowledge the many uncertainties surrounding the investment case: political instability in Brazil, oil prices, the FX rate, a US class action suit to be decided within the next 45 days and the fact that the sense of urgency was too low for a company with 5.9x net debt/EBITDA (1Q16 LTM). Despite the risks, we believe that companies' reserves and lower risk perception could bring significant improvement in investors' perception. We also note that Petrobras has been making efforts in the last 18 months to improve its liquidity and corporate governance, reduced capex, kept fuels prices at a premium to the international market and significantly reduced the capital increase risk for the next 18 months. For more details, please read our equity initiation report: https://neo.ubs.com/shared/d1yD87PwxkVRaGX

Petrobras ND/EBITDA 17E' sens. to FX rate and oil prices under current fuels prices plus 5% premium

	$40/b	$50/b	$60/b	$70/b	$75/b	$80/b	$90/b
FX 2.80	2.85x	2.70x	2.56x	2.43x	2.37x	2.31x	2.19x
FX 3.00	3.15x	2.97x	2.81x	2.66x	2.58x	2.52x	2.39x
FX 3.20	3.46x	3.25x	3.06x	2.89x	2.81x	2.73x	2.59x
FX 3.40	3.79x	3.55x	3.33x	3.13x	3.04x	2.95x	2.79x
FX 3.60	4.13x	3.86x	3.61x	3.38x	3.28x	3.18x	2.99x
FX 3.80	4.50x	4.18x	3.89x	3.64x	3.52x	3.41x	3.20x
FX 4.00	4.89x	4.52x	4.20x	3.91x	3.78x	3.65x	3.42x

Source: UBS estimates

Petrobras ND/EBITDA 17E' sens. to FX rate and oil prices under parity

	$40/b	$50/b	$60/b	$70/b	$80/b	$90/b
FX 2.80	10.72x	6.39x	4.46x	3.37x	2.67x	2.17x
FX 3.00	10.46x	6.27x	4.39x	3.32x	2.63x	2.15x
FX 3.20	10.23x	6.17x	4.33x	3.28x	2.60x	2.12x
FX 3.40	10.03x	6.07x	4.27x	3.24x	2.57x	2.10x
FX 3.60	9.86x	5.99x	4.22x	3.21x	2.55x	2.09x
FX 3.80	9.71x	5.92x	4.18x	3.18x	2.53x	2.07x
FX 4.00	9.58x	5.86x	4.14x	3.15x	2.51x	2.05x

Source: UBS estimates

UBS estimates vs. Consensus

	Consensus			UBS			Diff. (%)		
	2016	2017	2018	2016	2017	2018	2016	2017	2018
Net Revenues	92,610	107,810	115,306	88,371	100,543	109,527	-5%	-7%	-5%
EBITDA	26,610	31,822	32,593	26,149	28,891	31,617	-2%	-9%	-3%
Net Income Rep.	1,386	5,726	5,628	6,642	7,747	9,109	379%	35%	62%
EPS	0.21	0.88	0.86	1.02	1.19	1.40	379%	35%	62%
Net Income Adj.	513	4,391	5,920	6,642	7,747	9,109	1196%	76%	54%
EPS adj.	0.08	0.67	0.91	1.02	1.19	1.40	1196%	76%	54%

Source: UBS estimates and Bloomberg

Equity risk statement

The following are key risks to PETROBRAS share price: 1) commodity price and domestic refinery gate prices for gasoline/diesel, 2) execution risk, mainly on its E&P business, 3) capex discipline and return over new projects, mainly in downstream and other non-core areas, 4) price revaluation of the 5bn barrel rights recently purchased from the parent; 5) outlook for the Brazilian politics and economics and changes to Brazil's energy legislation.

Pemex: 2Q16 result summary

In 2Q16, Total revenues -31.8% y/y to US$13.5 bn (+4.6% q/q), y/y decline in revenues was mainly due to decrease in exports of crude oil & condensates and decrease in domestic sales of gasoline & diesel, magnified by decline in oil prices.

2Q16 reported EBITDA increased +20.9% y/y to US$10.1 bn (+2.0x q/q) as Cost of Sales declined 64.4% y/y to US$5.0 bn (-46.4% q/q). However, this was due to the reversal of asset impairments from end-2015 which we consider as non-recurring. Therefore, we adjust cost of sales upwards by US$5.2 bn which leads to adjusted EBITDA of US$4.9 bn for 2Q16, -41.6% y/y (-3.2% q/q). We employ this adjusted EBITDA figure for our leverage ratios. Adj. EBITDA margin contracted to 35.9% from 41.9% in 2Q15 (vs. 38.8% in 1Q16).

2Q16 Gross leverage deteriorated to 5.1x from 4.1x in 1Q16 (vs. 1.9x 2Q15) as LTM EBITDA decreased 15.4% q/q to US$19.0 bn (-57.4% y/y), and +3.2% q/q increase in Total debt to US$96.2 bn (+12.5% y/y). Net leverage increased to 4.5x in 2Q16 from 3.8x in 1Q16 (1.8x in 2Q15). Gross leverage (including pension liabilities) deteriorated to 8.7x from 7.5x in 1Q16 (vs. 4.1x in 2Q15) and Net leverage (including pension liabilities) deteriorated to 8.2x from 7.1x in 1Q16 (vs. 4.0x in 2Q15). Cash & cash equivalents +21.6% q/q to US$9.9 bn (+68.1% y/y). UBS liquidity ratio decreased to 1.6x vs. 2.0x in 1Q16 (vs. 3.3x in 2Q15).

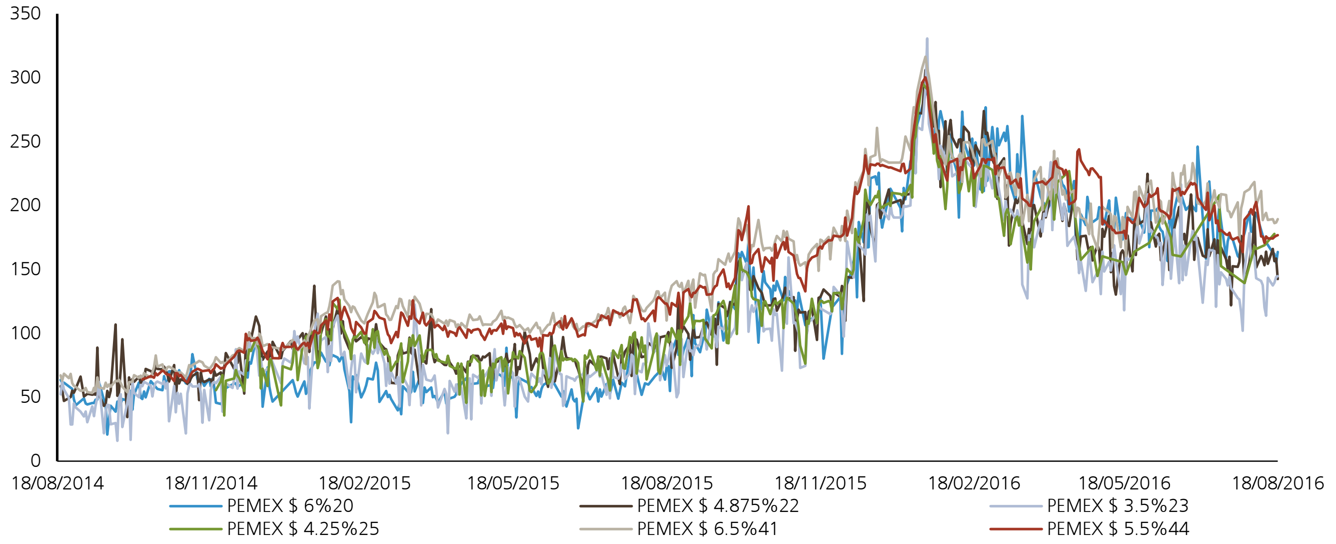
Pemex: Conference call highlights

Pemex stated that 2Q16 crude oil production -2.2% y/y to 2.176 Mdb. Natural gas production -8.4% y/y, mainly due to natural decline in production of crude oil and closing of wells with higher-gas ratios at the Akal field of the Cantarell business unit. Trion (discovered in 2012)is a strategic project for the company and is located in the northern region of gulf of Mexico. It is estimated to have 485 MMboe of oil and would need an investment of US$10-US$11 bn. Total crude oil processing -3.5% y/y to 1.021 Mbd due to decrease in heavy crude oil processing, as a result of unscheduled shutdowns and shortcomings of utilities, maintenance works and higher inventory of unfinished products. In 2Q16, variable refining margin was US$7.73 per barrel, US$1.08 lower than 2Q15. Pemex has almost paid a total of MXN130 bn of the total debt of MXN147 bn, concluding approx. 90% of the total debt program for the year. Pemex maintains 2.1 million barrels a day as the crude oil production guidance for 2016.

Pemex Bond recommendations

We maintain our Marketperform recommendations on PEMEX US$ bonds. The pickup to equivalent Mexico Sovereign bonds averages 165bps with a range of 100-210bps vs a 2-year average of 120bps (range 50-180bps ex-perps). However, execution risks on opex cuts, auctions in Mexico enabling Pemex to keep to its Capex cut plan and oil price volatility near-term are downside risks.

PEMEX YTW pickup to Sov:



Source: Bloomberg

Rating agency views on Pemex

Rating agency	Rating	Rating action / Date	Outlook	Assumptions	Upgrade trigger	Downgrade trigger	Comments
Moody's	Baa3	Assigns ratings to CHF issuances /20-May-1616	Negative	*A very high likelihood of extraordinary support from the government of Mexico (A3 negative) to avoid default, and; *A very high default correlation between PEMEX and the government.	*Upgrade unlikely in the near term; *For an upgrade to be considered, the company would need to significantly reduce its leverage and improve its operating profile, cash flow and liquidity; *Improving operating metrics and a lower tax burden that supports higher levels of internal funding for capital spending and prospects for a solid trend of increases in production and reserves could benefit the company's baseline credit assessment.	*Further material increase in financial leverage beyond current expectations, significant deterioration in production, or liquidity concerns ; *A downgrade of the government's rating or a change in Moody's assumptions about government support	
S&P	BBB+	Assigns ratings to CHF issuances /23-May-1616	Stable	NA	NA	NA	NA
Fitch	BBB+	Affirms ratings / 1-Jul-16	Stable	*WTI crude prices average US$35 per bbl in 2016, increasing to US$65 per bbl by 2019 *The company continues to face difficulties increasing its production over the next four years; Pemex will receive support from the sovereign	*Mexico's sovereign rating upgrade *Continued strong operating and financial performance /or a material reduction in Pemex's tax burden	*Mexico's sovereign rating downgrade *Perception of lower degree of linkage between Pemex and the sovereign *Substantial deterioration in Pemex's credit metrics	*Pemex has adequate liquidity of US$6.3 bn as of 31-Dec-15 *Pemex has committed revolving credit lines for US$4.5 bn and MXN23.5 bn *Debt is well structured with manageable short-term debt maturities *Fitch estimates Pemex's operating cash cost to be less than US$23 per bbl of oil eq., including interest costs and full allocation of administrative expenses to the upstream business

Source: Moody's, S&P and Fitch

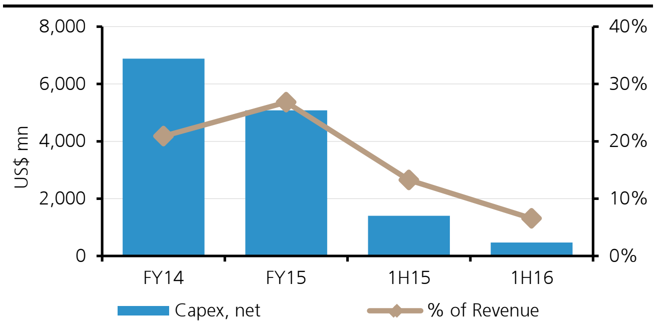
Ecopetrol Financials

Select financials and ratio summary (IFRS, consolidated, US$ million):

	FY14	FY15	2Q15	1Q16	2Q16
Total revenues	32,962	18,951	5,606	3,224	3,927
Net profit	2,861	(1,451)	603	601	263
Cash	2,952	2,063	3,563	2,543	2,711
Net debt	11,753	14,702	14,080	15,157	15,585
Interest expense	(472)	(614)	(78)	(162)	(184)
Working capital	265	218	370	549	1,630
Funds from operations (FFO)	9,473	5,013	942	1,119	555
Change in working capital	(1,193)	(1,225)	(617)	26	(297)
Operating Cash Flow (OCF)	8,280	3,788	325	1,146	258
CAPEX, net	(6,884)	(5,084)	(559)	(408)	(204)
Investing cash flow (ex CAPEX)	1,103	883	(1,272)	4	(208)
Free cash flow ex dividend	2,500	(412)	(1,506)	741	(153)
Dividends paid (cash flow)	(6,254)	1,999	(258)	(325)	(16)
Free cash flow (FCF)	(3,753)	1,586	(1,765)	416	(169)
Movement in debt	2,583	1,492	1,001	59	327
Movement in Equity (ex dividends)	0	(3,997)	0	0	0
FX effect on cash	577	530	101	(141)	(64)
Net cash generation	(593)	(388)	(663)	334	94
EBITDA	12,156	6,567	2,189	1,263	1,512
EBITDA margin	36.9%	34.7%	39.0%	39.2%	38.5%
CAPEX/ Sales	20.9%	26.8%	10.0%	12.7%	5.2%
Net debt/ LTM EBITDA	1.0 x	2.2 x	1.6 x	2.5 x	2.9 x
Total debt/ LTMEBITDA	1.2 x	2.6 x	2.0 x	2.9 x	3.4 x
UBS Liquidity ratio	5.0 x	3.0 x	3.2 x	3.7 x	3.3 x

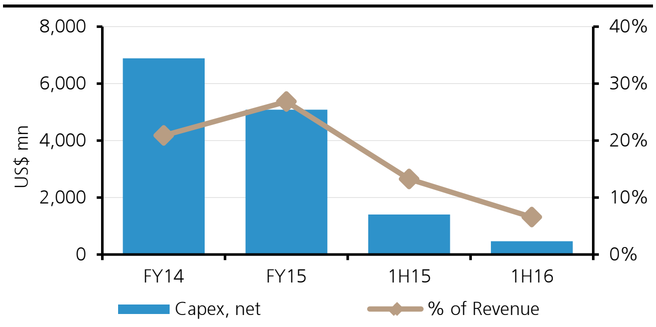
Source: Company data, UBS estimates

Earnings profile (US$ million)



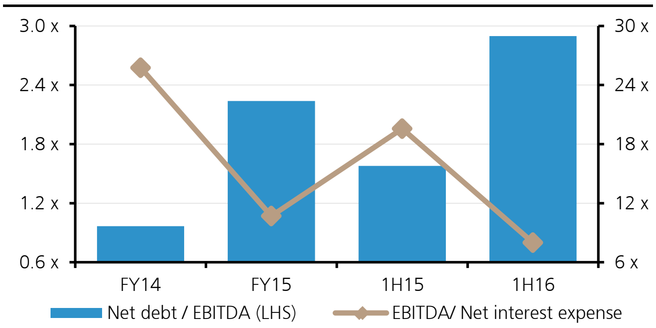
Source: Company data, UBS estimates

Capex snapshot



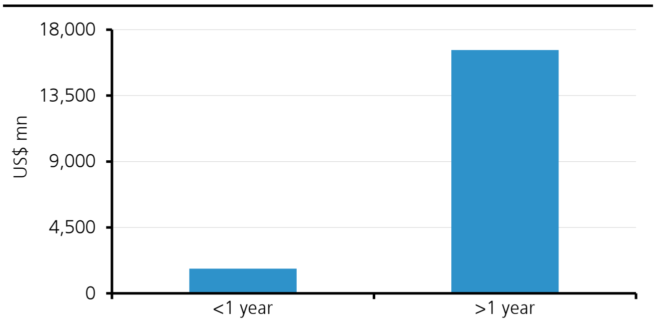
Source: Company data, UBS estimates

Debt capacity



Source: Company data, UBS estimates

Debt maturity profile as of 2Q16 Financials



Source: Company data, UBS estimates

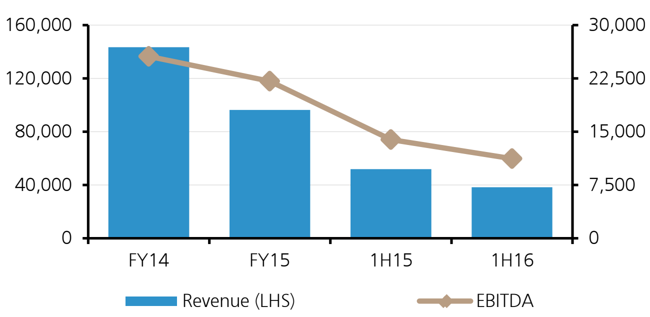
Petrobras Financials

Select financials and ratio summary (IFRS, consolidated, US$ million):

	FY14	FY15	2Q15	1Q16	2Q16
Total revenues	143,476	96,345	26,039	18,040	20,376
Net profit	(9,183)	(10,435)	173	(320)	106
Cash	25,964	25,473	29,534	22,412	20,345
Net debt	106,123	99,003	104,384	102,864	103,452
Interest expense	(6,002)	(6,246)	(1,252)	(1,955)	(1,705)
Working capital	5,617	3,667	4,123	5,680	6,252
Funds from operations (FFO)	33,245	27,899	7,172	6,124	6,394
Change in working capital	(6,767)	(2,017)	284	(1,685)	(125)
Operating Cash Flow (OCF)	26,478	25,883	7,456	4,439	6,269
CAPEX, net	(34,845)	(21,361)	(5,587)	(3,828)	(3,186)
Investing cash flow (ex CAPEX)	(1,403)	8,715	7,298	105	113
Free cash flow ex dividend	(9,771)	13,237	9,167	715	3,195
Dividends paid	(3,716)	0	0	0	0
Free cash flow (FCF)	(13,487)	13,237	9,167	715	3,195
Movement in debt	14,947	(4,324)	6,152	(4,490)	(5,598)
Movement in Equity (ex dividends)	(106)	73	36	37	12
FX effect on cash	1,653	7,072	(138)	(1,410)	(1,849)
Net cash generation	3,006	16,057	15,216	(5,147)	(4,239)
EBITDA	25,604	22,124	6,440	5,409	5,805
EBITDA margin	17.8%	23.0%	24.7%	30.0%	28.5%
CAPEX/ Sales	24.3%	22.2%	21.5%	21.2%	15.6%
Net debt/ LTM EBITDA	4.1 x	4.5 x	4.1 x	5.0 x	5.2 x
Total debt/ LTMEBITDA	5.2 x	5.6 x	5.2 x	6.1 x	6.2 x
UBS Liquidity ratio	3.3 x	2.3 x	2.8 x	1.8 x	2.2 x

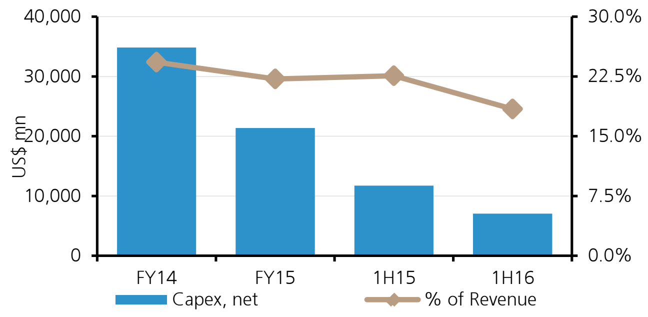
Source: Company data, UBS estimates

Earnings profile (US$ million)



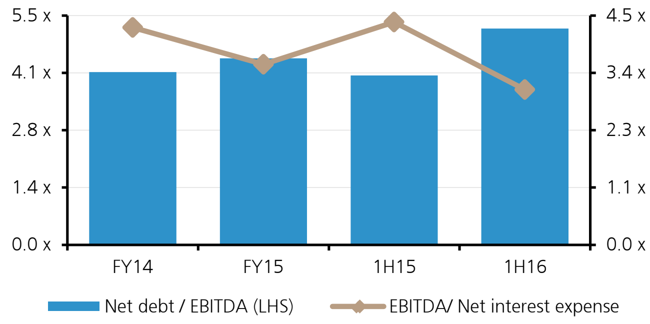
Source: Company data, UBS estimates

Capex snapshot



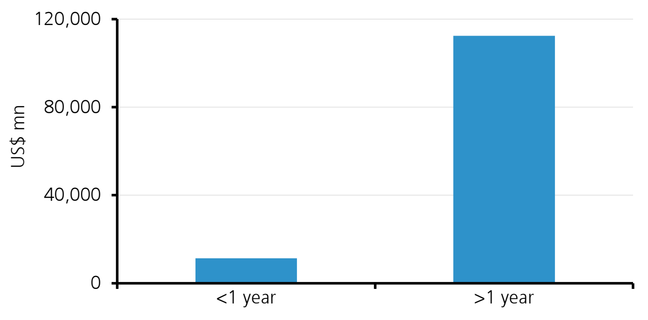
Source: Company data, UBS estimates

Debt capacity



Source: Company data, UBS estimates

Debt maturity profile as of 2Q16 Financials



Source: Company data, UBS estimates

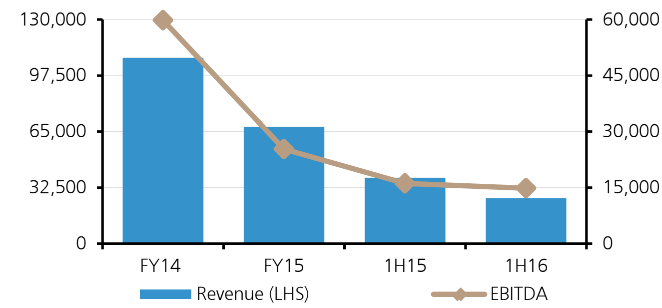
Petroleos Mexicanos Financials

Select financials and ratio summary (IFRS, consolidated, US$ million):

	FY14	FY15	2Q15	1Q16	2Q16
Total revenues	107,809	67,786	19,840	12,929	13,522
Net profit	(18,042)	(16,815)	(5,437)	(3,564)	(9,614)
Cash	8,017	6,322	5,862	8,104	9,852
Net debt	69,660	80,470	79,656	85,157	86,369
Interest expense, net	(3,210)	(3,645)	(706)	(330)	(1,736)
Working capital	(1,152)	(5,106)	2,177	(1,676)	(773)
Funds from operations (FFO)	3,901	(5,440)	37	(2,713)	641
Change in working capital	5,239	7,618	1,478	(242)	878
Operating Cash Flow (OCF)	9,140	2,178	1,515	(2,955)	1,519
CAPEX, net	(15,673)	(13,791)	(3,741)	(1,453)	(1,523)
Investing cash flow (ex CAPEX)	547	(209)	(148)	11	(285)
Free cash flow ex dividend	(5,986)	(11,822)	(2,374)	(4,397)	(289)
Free cash flow (FCF)	(5,986)	(11,822)	(2,374)	(4,397)	(289)
Movement in debt	11,462	7,267	114	6,283	705
Movement in Equity (ex dividends)	(3,505)	3,487	(18)	0	1,401
FX effect on cash	560	532	(140)	(67)	433
Net cash generation	2,531	(536)	(2,418)	1,819	2,250
EBITDA*	59,790	25,330	8,321	5,019	4,858
EBITDA margin	55.5%	37.4%	41.9%	38.8%	35.9%
CAPEX/ Sales	14.5%	20.3%	18.9%	11.2%	11.3%
Net debt/ LTM EBITDA	1.2 x	3.2 x	1.8 x	3.8 x	4.5 x
Total debt/ LTMEBITDA	1.3 x	3.4 x	1.9 x	4.1 x	5.1 x
Net debt/ LTM EBITDA (Including Pension liab)	2.8 x	6.1 x	4.0 x	7.1 x	8.2 x
Total debt/ LTMEBITDA (Including Pension liab)	3.0 x	6.4 x	4.1 x	7.5 x	8.7 x
UBS Liquidity ratio	5.1 x	2.1 x	3.3 x	2.0 x	1.6 x

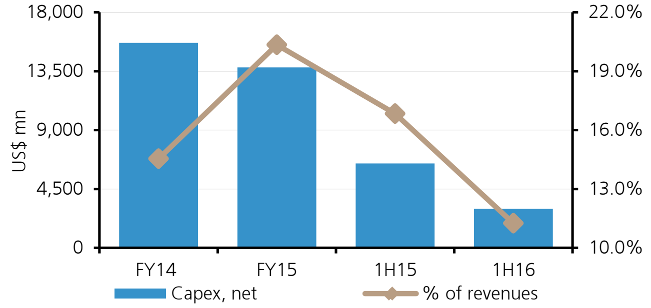
Source: Company data, UBS estimates; *FY14, FY15, 2Q15, 1Q16 and 1H16 EBITDA are adjusted for Net cost of employee benefits. 2Q16 EBITDA is adjusted for Impairment charges.

Earnings profile (US$ million)



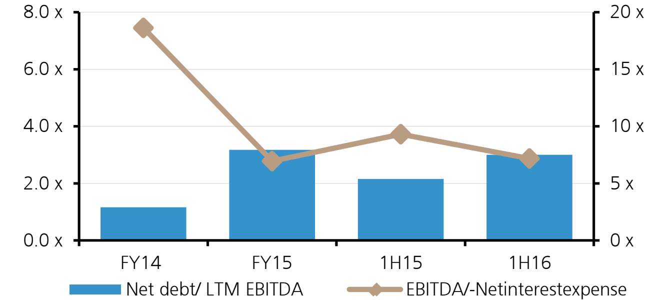
Source: Company data, UBS estimates

Capex snapshot



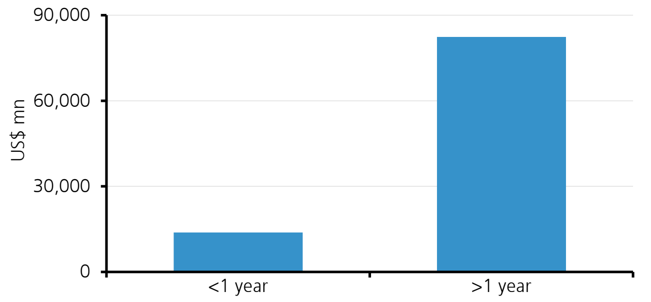
Source: Company data, UBS estimates

Debt capacity



Source: Company data, UBS estimates

Debt maturity profile as of 2Q16 Financials



Source: Company data, UBS estimates

We would like to thank Anantha Murthy, Jaganath Sethi and Sumit Charde, our research support service professionals for assisting in preparing this research report.

Valuation Method and Risk Statement

The credit outlook gives guidance on the expected trend in the credit quality of the entities.
Risks of investing in LatAm Corporate Credit include but are not limited to market risk, credit risk, interest rate risk, and foreign exchange risk. Additionally, for natural resource companies, if commodity prices are lower than expected, bond performance may fare worse than expected. Conversely, if commodity prices are higher than expected, bond performance may fare better than expected.

Equities
Ecopetrol: Oil companies 1) commodity price and domestic refinery gate prices for gasoline/diesel; 2) exploration risks associated with the business; 3) worse than expected drilling results; 4) steep increase in market risk aversion.
Our price target of US$6.5/share for Ecopetrol is based on DCF analysis.

Petrobras: The following are key risks to PETROBRAS share price: 1) commodity price and domestic refinery gate prices for gasoline/diesel, 2)execution risk, mainly on its E&P business, 3) capex discipline and return over new projects, mainly in downstream and other non-core areas, 4) price revaluation of the 5bn barrel rights recently purchased from the parent; 5) outlook for the Brazilian politics and economics and changes to Brazil's energy legislation.
Our multiples/SOTP-based valuation gives us a PT of R$18.20 for PETR4 (PN); our PT is R$17.80 for PETR3 (ON) based on the dividend differential between the two classes.

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UBS Investment Research: Global Equity Rating Definitions

12-Month Rating	Definition	Coverage[1]	IB Services[2]
Buy	FSR is > 6% above the MRA.	47%	32%
Neutral	FSR is between -6% and 6% of the MRA.	38%	25%
Sell	FSR is > 6% below the MRA.	15%	21%
Short-Term Rating	**Definition**	**Coverage[3]**	**IB Services[4]**
Buy	Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event.	<1%	<1%
Sell	Stock price expected to fall within three months from the time the rating was assigned because of a specific catalyst or event.	<1%	<1%

Source: UBS. Rating allocations are as of 30 June 2016.
1:Percentage of companies under coverage globally within the 12-month rating category.
2:Percentage of companies within the 12-month rating category for which investment banking (IB) services were provided within the past 12 months.
3:Percentage of companies under coverage globally within the Short-Term rating category.
4:Percentage of companies within the Short-Term rating category for which investment banking (IB) services were provided within the past 12 months.

KEY DEFINITIONS: Forecast Stock Return (FSR) is defined as expected percentage price appreciation plus gross dividend yield over the next 12 months. **Market Return Assumption (MRA)** is defined as the one-year local market interest rate plus 5% (a proxy for, and not a forecast of, the equity risk premium). **Under Review (UR)** Stocks may be flagged as UR by the analyst, indicating that the stock's price target and/or rating are subject to possible change in the near term, usually in response to an event that may affect the investment case or valuation. **Short-Term Ratings** reflect the expected near-term (up to three months) performance of the stock and do not reflect any change in the fundamental view or investment case. **Equity Price Targets** have an investment horizon of 12 months.

EXCEPTIONS AND SPECIAL CASES: UK and European Investment Fund ratings and definitions are: Buy: Positive on factors such as structure, management, performance record, discount; **Neutral:** Neutral on factors such as structure, management, performance record, discount; **Sell:** Negative on factors such as structure, management, performance record, discount. **Core Banding Exceptions (CBE):** Exceptions to the standard +/-6% bands may be granted by the Investment Review Committee (IRC). Factors considered by the IRC include the stock's volatility and the credit spread of the respective company's debt. As a result, stocks deemed to be very high or low risk may be subject to higher or lower bands as they relate to the rating. When such exceptions apply, they will be identified in the Company Disclosures table in the relevant research piece.

UBS Global Credit Strategy and Research: Rating Definitions
UBS ranks potential investment opportunities within non-government fixed income markets and sectors.

<table>
<tr><th colspan="7">Issuer Ratings</th></tr>
<tr><th></th><th>UBS Terminology</th><th>Rating Category[1]</th><th>Time Horizon</th><th>Definition</th><th>Coverage[2]</th><th>IB Services[3]</th></tr>
<tr><td rowspan="3">Credit Outlook</td><td>Positive</td><td>Buy</td><td rowspan="3">Up to 6 months</td><td rowspan="3">UBS' expected trend in a company's creditworthiness</td><td>3%</td><td>38%</td></tr>
<tr><td>Stable</td><td>Hold</td><td>72%</td><td>42%</td></tr>
<tr><td>Negative</td><td>Sell</td><td>25%</td><td>41%</td></tr>
<tr><th></th><th>UBS Terminology</th><th colspan="2">Time Horizon</th><th colspan="3">Definition</th></tr>
<tr><td rowspan="3">Credit Rating</td><td>AAA, AA, A (+/-)</td><td colspan="2" rowspan="3">Up to 12 months</td><td colspan="3" rowspan="3">UBS' assessment of a company's creditworthiness. Credit Ratings are only used in the evaluation of Swiss corporates.</td></tr>
<tr><td>BBB, BB, B (+/-)</td></tr>
<tr><td>CCC, CC, C (+/-)</td></tr>
<tr><th colspan="7">Security Recommendations</th></tr>
<tr><th></th><th>UBS Terminology</th><th colspan="2">Time Horizon</th><th colspan="3">Definition</th></tr>
<tr><td rowspan="3">Bond Recommendation</td><td>Outperform</td><td colspan="2" rowspan="3">Up to 3 months</td><td colspan="3" rowspan="3">A corporate bond's expected relative performance versus a defined reference</td></tr>
<tr><td>Marketperform</td></tr>
<tr><td>Underperform</td></tr>
<tr><th></th><th>UBS Terminology</th><th colspan="2">Time Horizon</th><th colspan="3">Definition</th></tr>
<tr><td rowspan="2">CDS Recommendation</td><td>Buy Protection</td><td colspan="2" rowspan="2">Up to 3 months</td><td colspan="3" rowspan="2">Recommendation to hedge a company's creditworthiness</td></tr>
<tr><td>Sell Protection</td></tr>
</table>

Note: Bond recommendations may be defined as 'Tactical', as in Tactical Outperform or Tactical Underperform, where there is a near term catalyst(s) taken into account.
The UBS credit rating may be modified by the addition of a plus (+) or minus (-) sign where applicable to show relative standing within the major categories.
Source: UBS. Rating allocations are as of 30 June 2016.
1.To satisfy regulatory requirements, we assign Buy, Hold and Sell in our Credit Outlook ratings distribution table for our Issuer Rating system.
2.Percentage of companies under coverage globally within this rating category.
3.Percentage of companies within this rating category for which investment banking (IB) services were provided within the past 12 months.

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Company Disclosures

Company Name	Reuters	12-month rating	Short-term rating	Price	Price date
Ecopetrol SA[6a, 6b, 7, 16]	EC.N	Sell	N/A	US$9.25	18 Aug 2016
Petrobras (ON)[16, 20]	PETR3.SA	Buy (CBE)	N/A	R$15.18	18 Aug 2016
Petrobras (PN)[16]	PETR4.SA	Buy	N/A	R$12.88	18 Aug 2016

Source: UBS. All prices as of local market close.
Ratings in this table are the most current published ratings prior to this report. They may be more recent than the stock pricing date

Issuer Name	Credit Rating	Outlook
Ecopetrol[6a, 6b, 7, 16]	-	Stable
Petrobras	-	Stable
Petroleos Mexicanos[2, 4, 5, 6a, 6b, 7]	-	Negative

Source: UBS. Ratings in this table are the most current published ratings prior to this report.

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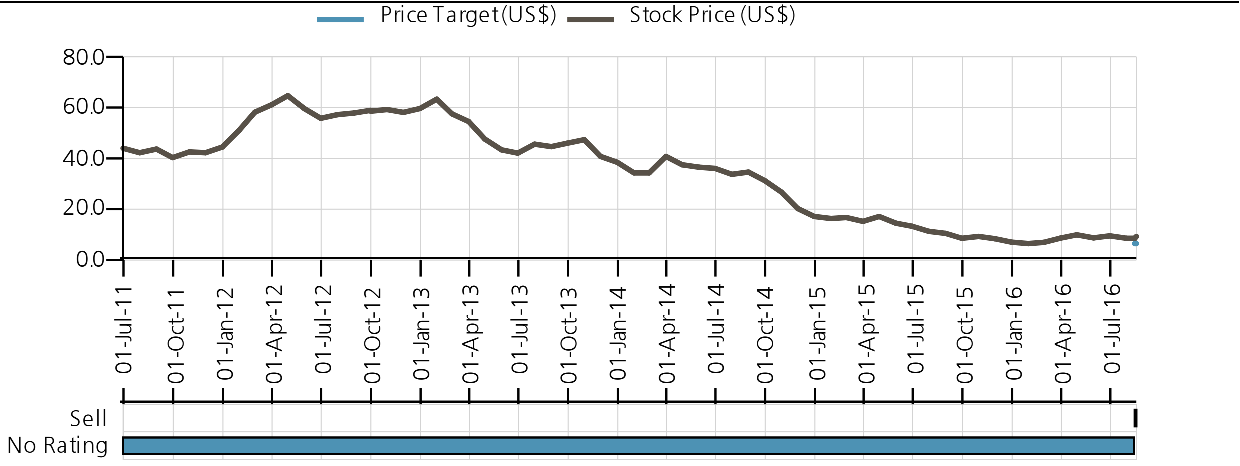
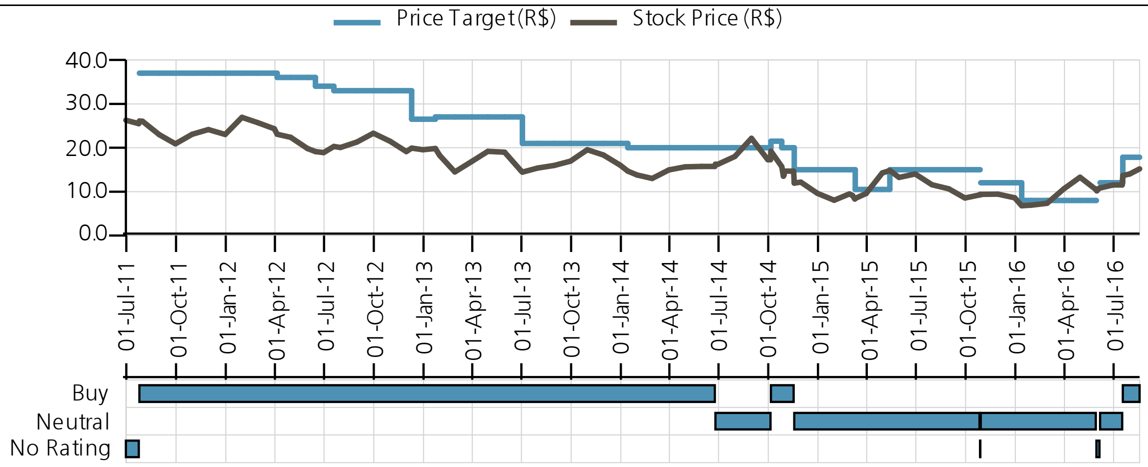
Ecopetrol SA (US$)



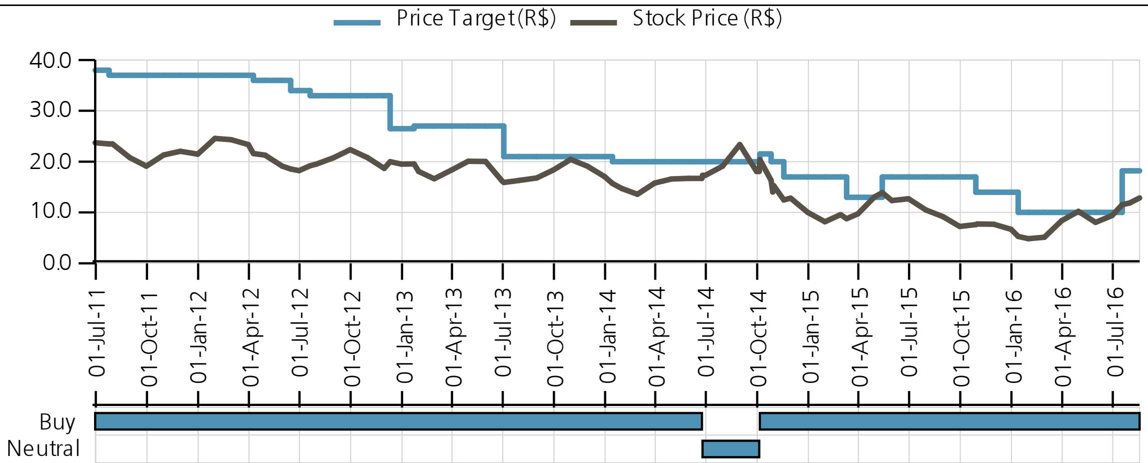
Source: UBS; as of 18 Aug 2016

Petrobras (ON) (R$)



Source: UBS; as of 18 Aug 2016

Petrobras (PN) (R$)



Source: UBS; as of 18 Aug 2016

Ecopetrol

Credit Outlook History	Date
Stable	05 May 2016
Negative	15 Jan 2016
Stable	23 Sep 2015

Source: UBS

Petrobras

Credit Outlook History	Date
Stable	18 Jul 2016
Negative	19 Jan 2016
No Rating	18 Jan 2016
Negative	23 Sep 2015

Source: UBS

Petroleos Mexicanos

Credit Outlook History	Date
Negative	23 Sep 2015

Source: UBS

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