



loans to Petrobras are already close to the cap of 25% of regulatory capital imposed by Brazil's central bank. Perhaps the government could relax this rule in the case of Petrobras, as this would be one of the easiest ways of providing support to the company (without directly compromising the central government's balance sheet). The loan book of the three largest state-owned banks in Brazil amounts to about BRL2.0 trillion (USD500bn) and we estimate that they already lend about USD25-30bn to Petrobras. If they were to pick the whole tab, their exposure to the company would increase to about USD92-111bn (18-22% of their loan book assuming no growth in USD terms) by 2019 depending on oil prices. But perhaps the private and international banks would be willing to provide USD15-20bn of rollovers and new money, easing up the pressure on the state-owned banks. In any case, the pressure on state-owned banks would pick up in 2018 by forcing them to fund Petrobras and, depending on future NPL levels, they might need government transfers to shore up their capital. Not to mention the scope for significant crowding out of the Brazilian corporate sector, whose cash buffers could be significantly depleted within the next two years due to the ongoing recession.

At this point, we don't feel so comfortable with the company's funding challenges in 2018 and 2019, although we believe they can still be achieved, particularly if the company manages to increase domestic prices beyond 6% p.a. and/or sell more than USD13bn of assets. But given the relatively high bond prices of the bonds due in 2018 and 2019 (above 79), we prefer to maintain our Hold recommendation on the bonds within this maturity range.

#### What happens beyond 2019? A large debt underwriting challenge

We estimate that Petrobras has about USD104bn of debt maturities between 2016 and 2024, of which USD43bn is international bonds and the remaining USD61bn is loans. Beyond 2024, we believe the company only has its long bonds (due 2026 through 2115), amounting to USD13.5bn. Even if we assume the company manages to achieve zero cumulative cash burn (a very hard task in a scenario of oil prices below USD55/bbl, USDBRL above 3.8 and stagflation in Brazil), the sources to meet its nine-year funding gap would include USD13bn of excess cash at the end of 2015 (assuming a minimum cash position of USD5bn), USD20-30bn of asset sales (hard to assume anything above USD30bn with the Brent price below USD55/bbl) and up to USD60bn of bank debt rollovers. We believe the execution risk for the company's refinancing challenge beyond 2020 is quite high in a scenario of low oil prices (Brent below USD55/bbl). If we assume USD31bn of asset sales and no cash burn, the company would have to roll over 100% of its debt maturities by 2024. But if the company raises USD20bn of asset sales and burns USD20bn (cumulative), it would need to raise USD31bn of new debt on top of USD60bn of bank debt rollovers – a USD91bn debt underwriting exercise.

#### The rationale for a steeper curve

We believe the combination of high refinancing needs and high bondholder subordination risk is very toxic for unsecured debt due beyond 2019. One could argue it is also toxic in 2018 and 2019, but the longer the maturity of the debt, the more toxic this combination becomes. If we were to assume an EV of USD100bn for Petrobras in 2020 (4x EBITDA) with a Brent price of USD50/bbl and USDBRL of 4.7, the EV-implied recovery to unsecured debt (assuming no haircut to secured debt) would be about 55% if we assume USD70bn of secured debt and USD13bn of asset sales. It is worth noting that the company's funding gap through 2020 is USD86-107bn, assuming USD13bn of asset sales and Brent of USD40-50/bbl. And it is quite likely that most of its funding needs could be met through secured instruments. A higher oil price (probably above USD60/bbl) and/or more asset sales would then be critical to improve the recovery value for unsecured creditors during an eventual credit event. We believe the concentration of maturities in the front end and the high subordination risk beyond 2019 calls for a steeper curve for Petrobras' bonds.