1. **Why should Petrozuata use project finance for this project?**

: First, investment companies had higher S&P ratings over PDVSA which was B according to Exhibit 8 Oil and Gas Industry Comparables. For the Petrozuata project, the S&P credit rating can be raised to investment grade since the sponsors’ creditworthiness is one of the important issues the rating agencies would assess. By using bank debt, Petrozuata could draw on its credit line as needed.

Second, using project finance can give the firm higher leverage, allowing it to match its cash inflows and outflows

Third, using project finance can help to achieve a better tax rate. In regards to the tax incentive to projects given by the government. The tax rate dropped from 67% to 34%.

Fourth, PDVSA can fund other projects.

1. **What are Petrozuata’s three most important operating risks? How does the deal structure address these risks? Who would bear these risks ?**

:We choose market risk, political sovereign risks and macroeconomic risks.

First, for market risk, prices are volatile and quantities of output are uncertain. Currently, some risk can be shifted to bond holders. Only PDVSA would bear these risks if the project was financed internally by PDVSA.

Second, for political risk, the government could seize the project or increase tax rates. If the project was financed internally by PDVSA, PDVSA would bear the risk solely.

Third, for macroeconomic risks, exchange rate and inflation rate could affect project costs. Since the Bolivar depreciated much in recent years and Venezuela experienced high inflation rate, to help improve this, within the deal structure, the project revenues are in dollars. With revenues in dollars, the project should be more stable.

1. **As currently envisioned, debt will comprise 60% of the funds needed for the project. Would you recommend a higher or lower leverage ratio? What happens to the minimum debt service coverage ratio and the internal rate of return on equity (IRR) as the project leverage increases to 70% of project funds? Decreases to 50%?**

: No, I would recommend staying at 60%, which would gain safe and high IRR.

At 60% debt, the firm could earn 25.6% IRR, which is a high gain compared to the cost of equity of 21%. (4.6% benefits over equity investment) In addition, DSCR for the first year is 2.08x, which is enough to get an investment grade rating and also to cover the interest expenses in the volatile situation.

However, with 70% of the leverage, DSCR would go down to 1.45x, making the firm vulnerable to the price fluctuation. Even though the IRR would go up to around 32% with the 70% leverage, it seems too risky.

At 50% of leverage, DSCR would be 2.5x, which is pretty much safe, but the IRR is around 22%, which is way lower than that of a 60% leveraged firm.

1. **What kind of debt (agency debt, bank debt, or Rule 144A bonds) should the sponsors use to fund the deal? What are the advantages and disadvantages of each kind of debt?**

|  |  |  |
| --- | --- | --- |
|  | advantage | disadvantage |
| Agency debt | certification effect ：the acquisition of government-funded R&D programs may be taken to certify that firms are of high quality, sending a signal to outside potential capital providers, reducing information asymmetry. | It takes a long time to arrange such debt and the cost of such debt is higher. |
| Bank debt | It is feasible to match cash flow with borrowings. | The borrowing time period is relatively short and in most cases, it requires covenant. Also, the amount of money that can be borrowed is limited |
| Rule 144A bonds | The borrowing time period is relatively long with fixed interest rates. Rule 144A bonds can borrow money in large quantities and require a small covenant. | Have to share ownership with other people. |

According to the table above, I believe the benefit of Rule 144A bonds outweighs the disadvantage and it is the most suitable option for this project.