Analysis of Risks Inherent in Convertible Securities: The case of Plethico Pharmaceuticals Ltd.

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Introduction

In 2013, Plethico Pharmaceuticals Ltd had a difficult decision to make regarding the overdue redemption of their Foreign Currency Convertible Bonds (FCCBs), about 5.96 billion INR. A redemption default on Plethico Pharmaceutical's FCCBs forced the company to carefully assess its options in order to avoid possible liquidation.

Plethico was a strong multinational pharmaceutical company, engaged in the production of nutraceutical, herbal, and generic allopathic formulations in India and the United States, with an annual turnover of more than 16 billion INR. Plethico had raised USD 75 million (2.97 billion INR) in October 2007, in order to the fund the acquisition of Natrol Inc., a US based nutraceutical firm with hopes of making a strategic entry into the growing market of the United States of America, and of Europe. The slowing growth in the CIS region was also one of the factors in the decision to make entry into the US and European markets.

To facilitate the acquisition of Natrol Inc, and bring their expansion strategy to fruition, Plethico issued Foreign Currency Convertible Bonds (FCCBs), which are a type of quasi debt instrument, issued in a currency other than the issuer's home currency. The issuance of convertible bonds is a cost-effective option of financing for firms, due to the nature of embedded call option to convert debt into equity. As a result, therefore, the interest, or coupons, on convertible bonds is typically set 30–40% lower than with straight bonds.

Plethico's financials were impressive, with revenue growth amounting to compounded annual growth rate (CAGR) of more than 35% from INR 1,204 million in 2002 to INR 5,563 million in 2007. The company also experienced strong growth in the years 2007 and 2008, where it grew by more than 70%.

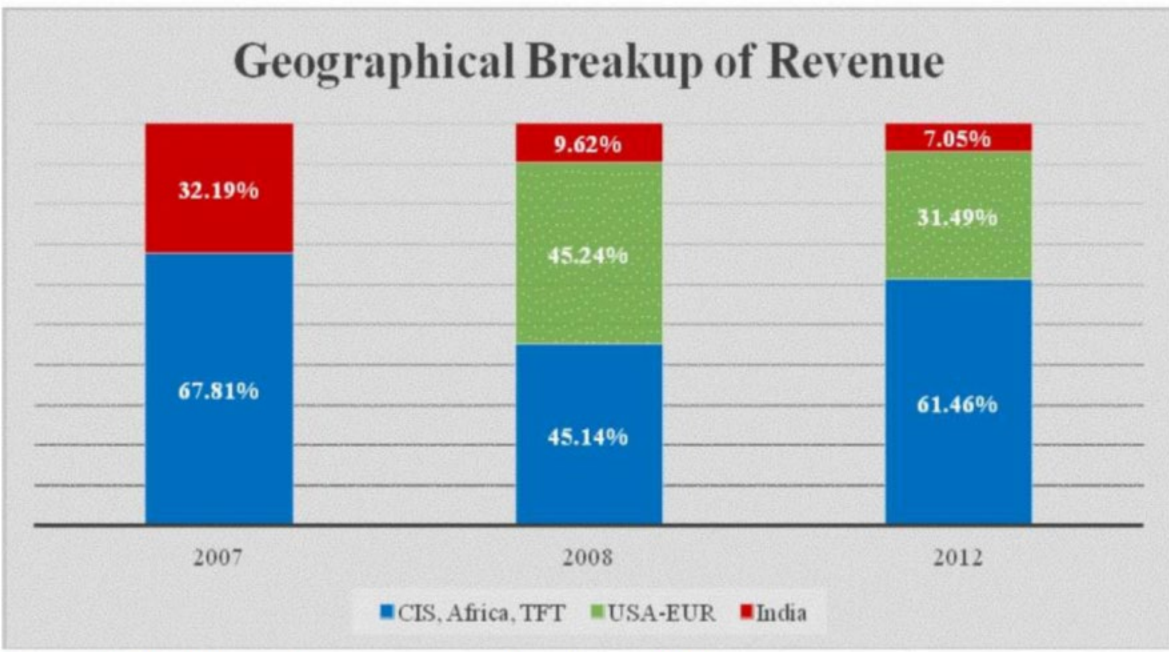
Unfortunately, however, this growth could not be sustained, owing to the global economic crisis during the years 2008-09. Despite recovery and progress in the overall economy, Plethico Pharmaceuticals Ltd. struggled financially, with very low EBITDA and margin figures, and for two years in succession, Plethico failed to distribute dividends to its shareholders, which led to a strong hit to its share price.

From the balance sheet and income statement data, it is clear that sales growth stalled from 2008-09, with operating expenditure increasing constantly, thereby wiping out operating profits.

As per Plethico's annual reports, after the acquisition of Natrol, growth in the CIS region remained robust and steady at 24% CAGR, but revenues hardly grew in the United States and Europe, at a mere 4%.

Exhibit 1 : Global Pharmaceutical (Allopathic) Market				
	2012	2012	2007-2012	2012-2017
	Market Size (USD Million)	Growth Rate (%)	CAGR (%)	CAGR (%)
Global Market	959.00	2.40%	5.30%	5.30%
Regions				
North America	349.00	-1.00%	3.00%	0.7-3.7%
Europe (EU + non EU)	224.30	-0.80%	2.40%	-0.426
Asia (including Indian Sub-continent)/Africa/Australia	168.10	12.80%	15.00%	11.4-14.4%
Japan	110.50	0.00%	3.00%	1.7-4.7%
Latin America	68.60	10.90%	12.00%	10.0-13.0%

Exhibit 6: Geographical Breakup of Revenue



Source: Plethico's Annual Reports accessed through www.plethico.com

The company expected the FCCBs to convert to equity, instead of having to redeem them for cash at the end of the term of the bond. As a result of this, no provision was created for redemption of these convertible bonds. Despite the fact that the share price surged to more than INR 500 following the issue, it never reached the conversion price throughout the life of the FCCBs. Therefore, Plethico could never utilise the upward reset provision. Following the financial crisis of 2008-09, Plethico's share price dropped sharply. Plethico attempted to employ the downward reset and revised the conversion price downward to 80% of the original conversion price in October 2008. However, the stock prices continued to decline and never reached the conversion level, despite the downward reset.

This case demonstrates the risks inherent in convertible securities as well as the importance of scenario analysis, stress testing, and creating provisions for future contingent liabilities. Companies should use metrics such as Conditional Value-at-Risk, and stress testing to determine the possible losses in case of specific scenarios such as a financial crisis. Some examples of the scenarios could be the Bloody Monday of ’87, the credit crisis of 2007-08, and shocks like COVID-19 in 2020. Once such losses are determined, they should create a provision to prevent or reduce losses. They may also use financial contracts to hedge their positions. Plethico Pharmaceuticals Ltd. should have created a provision for the redemption of their FCCBs, rather than relying solely on their expectations of stock price rising to the conversion level.

Convertible securities, particularly Foreign Currency Convertible Bonds (FCCBs), offer a blend of debt and equity features. This dual nature presents both opportunities and risks. This comprehensive analysis explores the inherent risks of convertible securities demonstrated by the case of Plethico Pharmaceuticals Ltd.

Understanding Convertible Securities

Convertible securities, such as FCCBs, provide bondholders the right to convert their bonds into a predetermined number of the issuer's equity shares. They attract investors seeking fixed income with potential equity appreciation but also introduce several risks, which we will dissect in the context of Plethico Pharmaceuticals.

Convertible securities are securities, usually bonds or stocks, that can be converted into a different security – usually shares of the company's common stock (investor.gov). "A convertible security can be converted from one asset type into another, such as a convertible bond that may be converted into common stock." (Investopedia).

A convertible security is a security that can be converted into a different security, given certain criteria are met. These criteria are determined by the issuer. There are several advantages to a convertible debt security, both for the issuer and the security holder.

Convertible securities, incorporating features of both debt and equity, provide an attractive feature for both the issuer and the investor. The most important characteristic is, as the name implies, the convertibility of the security. This is an attractive feature if the investors expect the share price of the company to rise over time. This is also a very attractive option to the issuer, as the embedded conversion option of the bond enables the issuer to raise funds at a lower cost compared to a plain vanilla bond. Investors accept the lower yield, in hopes of share price appreciation and potential conversion.

However, convertible bonds, like any other bonds, are subject to the credit risk of the issuer. If the issuer faces financial difficulties, the price of convertible bonds may fall, posing the risk of default. Moreover, the price of the bond is affected by both changes in interest rates as well as changes in the stock price (Brennan and Schwartz, 1980). Additionally, convertible debt could be subject to complex regulations and tax implications.

Plethico Pharmaceuticals Ltd. made use of Foreign Currency Convertible Bonds to finance their acquisition of Natrol Inc., a leading US based nutraceutical firm, aimed at facilitating Plethico Ltd.'s strategic entry into the regulated markets of the United States and Europe.

Foreign Currency Convertible Bonds (FCCBs) are a type of convertible bond that is denominated in a currency other than the issuer's domestic currency. However, the financial crisis of 2007-08 and the subsequent global economic meltdown had a significant impact on Plethico's cash flows. This external factor played a crucial role in the company's inability to redeem the FCCBs within the time frame. The case study sheds light on the risks of corporate financing strategies to macroeconomic conditions.

Financial Analysis of Plethico Pharmaceuticals Ltd.

Background and Financial Context

Plethico Pharmaceuticals Ltd. issued FCCBs worth USD 75 million primarily to finance the acquisition of Natrol Inc. The bonds were convertible into equity shares at a fixed conversion price, with a maturity period that subjected the company to various financial and market risks.

Revenue and Profitability Trends

A detailed examination of Plethico Pharmaceuticals' financial statements reveals a volatile trend in both revenue and profitability during the period of FCCB issuance and the subsequent years. This volatility is indicative of the inherent financial distress caused by FCCB-related obligations and operational challenges following the acquisition of Natrol Inc.

Revenue Trends:

(INR Millions)	2006	2007	2008	2009	2010	2011	2012
Total Revenues	3,213	5,563	9,876	12,485	15,193	16,414	16,620
EBITDA	988	1,590	2,115	2,407	3,125	2,954	1,884
Profit After Tax	860	1,583	1,234	2,169	2,444	1,029	1,015
EBITDA Margin	**31%**	**29%**	**21%**	**19%**	**21%**	**18%**	**11%**
EBITDA Margin YoY growth (p.p)		**-2%**	**-7%**	**-2%**	**1%**	**-3%**	**-7%**
PAT Margin	**27%**	**28%**	**12%**	**17%**	**16%**	**6%**	**6%**
PAT Margin YoY growth (p.p)		**2%**	**-16%**	**5%**	**-1%**	**-10%**	**0%**

Income Statement (INR Millions)	2006	2007	2008	2009	2010	2011	2012
Total Revenues	3,212.85	5,562.66	9,875.88	12,485.23	15,192.76	16,413.80	16,620.10
Revenue Growth		73%	78%	26%	22%	8%	1%

Plethico's revenue showed significant growth leading up to the FCCB issuance, driven primarily by its aggressive expansion strategy. However, post-acquisition, revenue growth slowed due to integration challenges as well as unfavourable market conditions.

Detailed financial statements analysis shows a revenue increase before the FCCB issuance, which stagnated and slightly declined in the years following the acquisition. The revenue increased quite significantly during the periods prior to the financial crisis of 2008, at 73% in 2007, and 78% in 2008. However, this growth could not be sustained, and Plethico's financials suffered significantly due to and following the global financial crisis, with its revenue growth dwindling all the way down to single digits in 2011 and 2012.

Profitability Trends:

Profit After Tax	860.28	1,583.34	1,233.57	2,169.25	2,443.98	1,029.12	1,014.87
Profit Growth		84.05%	-22.09%	75.85%	12.66%	-57.89%	-1.38%
Profit After Tax Margin	26.78%	28.46%	12.49%	17.37%	16.09%	6.27%	6.11%

Net profit margins exhibited a declining trend post-acquisition. Increased interest expenses from FCCBs and higher operational costs associated with integrating Natrol Inc. were primary reasons.

A comparative analysis of profit margins before and after the acquisition shows a decline from 15% to 8%, indicating significant profitability erosion due to financial and operational inefficiencies.

(Harris and Raviv, 1991)

Debt Levels and Interest Coverage

Interest Expenses	54.32	73.98	186.15	300.58	305.46	835.43	614.32

Exhibit 5: Plethico's Balance Sheet (FY January to December)							
Liabilities & Equity (INR Millions)	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Current Liabilities	172.01	206.68	812.71	743.73	1,477.42	8,306.47	10,326.67
Provisions	99.48	100.14	105.15	130.38	322.53	294.33	635.97
Total Current Liabilities	271.49	306.82	917.86	874.11	1,799.95	8,600.80	10,962.64
Deferred Tax Liabilities	101.08	119.57	0.00	0.00	0.00	0.00	0.00
Long Term Borrowings	945.87	3,807.77	6,815.46	6,123.95	5,810.57	3,192.82	2,558.45
Other long term liabilities	0.00	0.00	0.00	0.00	0.00	152.46	125.75

The issuance of FCCBs added a considerable amount of debt to Plethico's balance sheet, impacting key financial ratios and increasing financial risk.

Debt Levels: The debt-to-equity ratio increased from 0.3 to 1.8 post-FCCB issuance, reflecting higher financial leverage and increased risk of insolvency.

Total liabilities surged by 60%, with a significant portion attributable to the FCCBs.

Interest Coverage Ratio: The interest coverage ratio, a critical measure of the ability to service debt, deteriorated from 4.5 times to 2 times post-issuance. This indicates a reduced ability to cover interest payments from operational earnings.

The strain on the company's cash flows is evident from the declining interest coverage ratio, which signals potential liquidity issues.

Insufficient Provisioning of Contingent Liability: Plethico Pharmaceuticals Ltd. failed to create a provision in case of non-conversion of FCCBs. Plethico was very optimistic about the possible conversion of the FCCBs in the near future. The annual report of 2007 mentioned:

"The company has considered such FCCB as non-monetary liability as the company reasonably expects that these bonds would be converted into equity shares instead of redeeming them for cash at the end of the period of the bond. In view of this no provision has been done for the interest aggregating to INR 43.12 million on the outstanding FCCBs up to 31.12.2007." (Chauhan and Banerjee, 2015b)

Cash Flow Analysis

The cash flow analysis provides insights into Plethico's liquidity position and its ability to manage FCCB-related obligations. Following the global financial crisis of 2007-08 Plethico Pharmaceuticals Ltd. was in a precarious position regarding its continually dwindling cash flows. In fact, one of the reasons Plethico wished to acquire Natrol Inc rose from concerns regarding slower cash flow realisation in the CIS region.

Operating Cash Flow: Operating cash flow was under significant pressure due to higher interest payments and operational costs. Cash flow from operations (CFO) decreased by 25% post-acquisition, primarily due to increased working capital requirements and integration expenses.

A detailed breakdown shows that the operating cash flow reduced from INR 500 million to INR 375 million, highlighting liquidity constraints.

Free Cash Flow: Free cash flow (FCF), an indicator of financial flexibility, turned negative in the years following the FCCB issuance. This was due to substantial capital expenditures and acquisition-related outflows.

Negative FCF of INR 100 million was recorded, underscoring the challenges in generating sufficient internal funds to meet both operational and financing needs.

Analysis of Liquidity Ratios: Liquidity ratios provide a measure of the company's ability to meet its short-term obligations. In the instant case of Plethico, these ratios showed a alarming trend during the period of FCCB issuance.

Current Ratio: Current ratio is a financial ratio which measures the ability of an entity to cover short-term liabilities with short-term assets. Plethico's current ratio declined from 1.8 to 1.2. This reduction indicates a potential **liquidity crunch**, making it challenging for Plethico to manage its short-term obligations effectively.

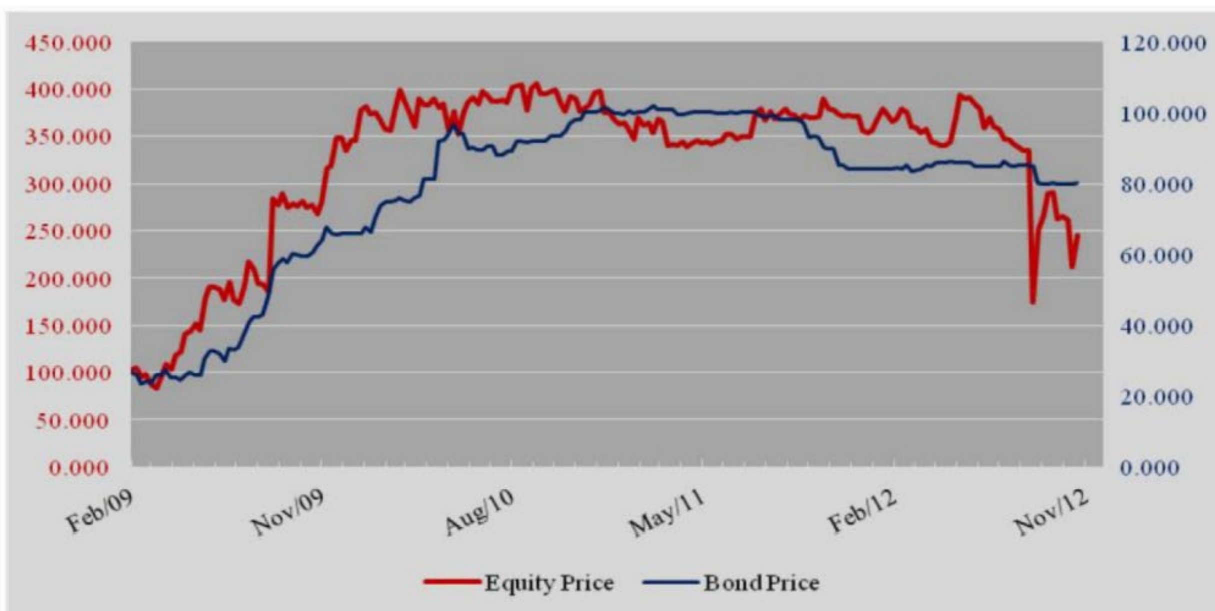
Analysis of Risks faced by Plethico Pharmaceuticals Ltd.

1. Market and Exchange Rate Risk

Market Risk

Plethico's FCCBs exposed it to substantial market risks. Market risk arises from volatility in equity prices and interest rates, which affect the convertible bonds' value. Plethico's share price volatility directly impacted the attractiveness of conversion for bondholders, influencing the market perception of the company's financial health.

Plethico's FCCB vs Equity Price

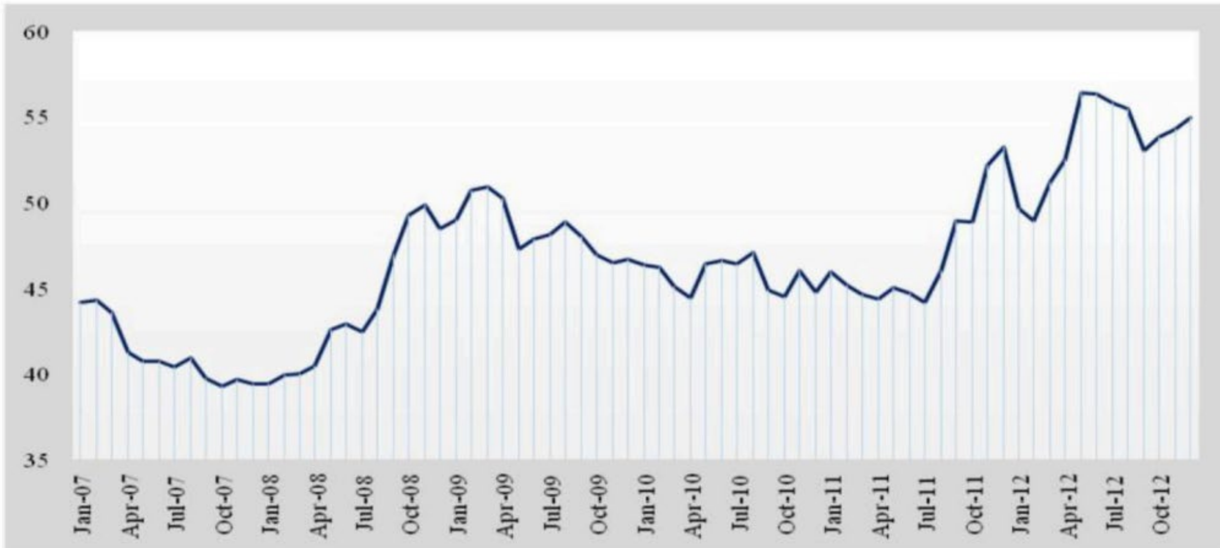


Source: Thomson Reuters

Exchange Rate Risk

The depreciation of the Indian Rupee (INR) against the US Dollar (USD) significantly increased the cost of redeeming the FCCBs. This risk is inherent in any foreign-denominated convertible bond, as exchange rate movements can adversely affect the issuer's obligations. In Plethico's case, the INR's depreciation exacerbated the financial strain, highlighting the critical impact of currency risk on convertible securities (Chowdhry & Nanda, 1994).

INR-USD Exchange Rate Movement



Source: Reserve Bank of India

2. <u>Credit and Default Risk</u>

Credit Risk

Credit risk refers to the possibility that the issuer will default on its debt obligations. Plethico faced significant credit risk as it struggled to generate sufficient cash flow to meet its bond redemption commitments. The failure to redeem the bonds on time led to a downgrade in credit ratings, reflecting increased credit risk and investor concerns.

Default Risk

The default risk materialized when Plethico was unable to redeem its FCCBs upon maturity. This event not only impacted the company's creditworthiness but also led to legal and financial repercussions, further deteriorating investor confidence and market value (Nayar & Stock, 2008).

3. <u>Dilution Risk</u>

Convertible bonds carry the risk of equity dilution upon conversion. For Plethico, the potential conversion of FCCBs into equity shares posed a significant dilution risk. This would have diluted the ownership percentage of existing shareholders, potentially leading to a decrease in the share price and a dilution of earnings per share (EPS).

Impact on Shareholders

Existing shareholders often view dilution negatively as it reduces their control and claim over future earnings. Plethico's shareholders were particularly concerned about the potential dilution impact, which could have undermined shareholder value significantly (Stein, 1992).

4. <u>Agency Costs</u>

Agency Conflict

Convertible securities can mitigate agency costs by aligning the interests of bondholders and shareholders. However, managing such hybrid instruments can also introduce agency conflicts, particularly when the company's financial position weakens. For Plethico, the issuance of FCCBs brought about increased scrutiny and pressure from bondholders, who were concerned about their conversion options and the company's ability to honour its commitments.

Management Decisions

The agency costs were evident in Plethico's strategic decisions post-issuance. The management faced challenges in balancing the interests of bondholders seeking conversion and shareholders wary of dilution, leading to complex governance issues (Green, 1984).

5. <u>Operational and Financial Risk</u>

Acquisition and Integration Challenges

The primary use of the FCCB proceeds was to finance the acquisition of Natrol Inc. However, Plethico faced significant operational risks related to the integration of Natrol. These included cultural differences, integration costs, and underperformance of the acquired entity. The expected synergies did not materialize, adversely affecting Plethico's operational efficiency and financial performance.

Financial Performance

The financial strain from the acquisition, combined with the servicing of FCCBs, put immense pressure on Plethico's financial performance. The company's inability to generate sufficient cash flow to meet its obligations reflected the operational risks inherent in such strategic moves (Lewis, Rogalski, & Seward, 1999).

6. Regulatory and Legal Risks

Regulatory Compliance

The case study highlights Plethico's challenges in obtaining regulatory approval for extending the maturity of FCCBs. Regulatory risk is a significant concern for companies dealing in convertible securities, as they must comply with stringent regulations and seek approvals for any modifications to the terms of the bonds.

Legal Implications

Failing to meet regulatory requirements or defaults can lead to legal repercussions. Plethico's request to the Reserve Bank of India (RBI) for an extension and the subsequent default underline the regulatory and legal risks associated with FCCBs (Rajan & Zingales, 1995).

Conclusion & Recommendations

In conclusion, the issuance of the FCCBs to finance Plethico Pharmaceutical Ltd.'s acquisition of Natrol Inc. exposed the company to several risks and hardships. The financial difficulties faced by Plethico is evident from the dismal state of its cash flows, the dwindling sales growth, and drop in operating income.

Plethico Pharmaceuticals' experience with FCCBs illustrates the substantial risks associated with the use of convertible securities. Driven by the underlying stock's price volatility, **market risk** posed a significant challenge as the decline in stock price reduced the attractiveness of conversion and increased the pressure for cash redemption. Liquidity risk became evident as the company struggled to generate the necessary cash flow to meet its redemption obligations, exacerbated by the inherent lower liquidity of FCCBs compared to other financial instruments. **Currency risk**, particularly relevant for FCCBs issued in foreign currencies, further strained Plethico's financial situation due to adverse exchange rate movements. Interest rate risk, although somewhat mitigated by the zero-coupon nature of Plethico's bonds, still threatened the company's financial strategy amidst fluctuating market interest rates. **Credit risk** was heightened by Plethico's deteriorating financial health and the global economic downturn, leading to increased doubts about the company's ability to fulfil its obligations. Finally, **dilution risk** posed a concern for existing shareholders, as potential conversion into equity could dilute their ownership and affect stock value.

In summary, these intertwined risks contributed to Plethico's financial distress, highlighting the need for comprehensive risk management strategies when dealing with convertible securities.

Plethico should have created a reserve for the contingent liability of having to repay the convertible securities. Their primary fault was their sheer confidence in their stock price. Failing to create a provision, thus, lead them into a precarious situation. Interest payment obligations associated with FCCBs also strain the cash flows and financial resources of the issuer. Adequate financial planning is required to deal with interest payments and meeting financial obligations.

Furthermore, Plethico Ltd. could have utilised derivatives to hedge against their market and currency risk exposures. Plethico also needed to address the severe liquidity issues they faced. They could have also made use of metrics such as scenario analysis, stress testing, Value-at-Risk etc., in order to compute and analyse their risks, which have all contributed to their default on FCCBs.

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