## FIN1XX CURRENT ISSUES IN FINANCE

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At first glance, USEC Inc. seems to have been expanding recently. In fact, total revenue increased from \$1.4 billion in 2002 to \$1.6 billion in 2005. However, it must also be noted that the price of Separative Work Units (SWU), or USEC's primary product, increased in value substantially over that period. Thus, much of the company's growth appears to have originated from an increase in selling price rather than an increase in units sold. Therefore, it makes sense that the net income increased over this period. However, not only did the dollar amount of net income increase, but net profit margin rose over the period of 2002 to 2005 as well. However, this can also be explained by market prices. While the company's primary input is uranium, and uranium prices increased dramatically during this period, much of the company's purchases came from Megatons to Megawatts. Under this program, USEC purchased uranium from Russia at a fixed price of \$20 per pound, even though the market value of uranium was \$43 per pound by 2006. While this program only accounted for \$100 million per year (and perhaps during some years the company would have to purchase additional uranium at the market price), savings were significant enough to increase the profitability of the firm. The only downside of this program was that it required USEC to purchase no less than 5 million pounds of uranium every year, regardless of demand. This resulted in the buildup of inventories. While according to the books inventory only increased from \$840 million in 2002 to \$962 million in 2005, the market value of the inventory buildup was much greater. In fact, the \$580 million book value of Megatons to Megawatts inventory was estimated to have a market value of over \$1.2 billion. In addition to inventory, other current assets increased as well. In fact, current assets rose from 62.8% of assets in 2002 to 77.6% of assets in 2005. This was due to higher values of cash, short-term investments, accounts receivable, inventories, and even deferred income tax. This increase was mirrored by a substantial decrease in the "other long-term assets" category. While it may seem wasteful for the company to pour increasing amounts of money into assets with little or no yield, it could be part of a strategy to increase liquidity for an upcoming capital expenditure project.

The American Centrifuge Project (ACP) is a project that USEC decided to pursue in order to decrease long run costs. While the project requires a substantial initial investment, the new facility would allow USEC to scale down and eventually close the less efficient Paducah plant. USEC currently pays \$8 million every year to lease the Paducah plant, but if they were to put the plant in cold standby, the government would pay for the plant's maintenance expenses. Another benefit of pursuing ACP is the limited amount of maintenance investment for the new plant. If the company were to continue operating the Paducah plant, \$30 million of capital expenditures would be required each year in order to maintain the facility. On the other hand, while the ACP facility is expected to have very high startup costs, maintenance would not be an issue throughout the plant's expected useful life of 15 years. Not only is ACP expected to eliminate the cash outflows required to operate and maintain the Paducah plant, but it also promises a 95% decrease in the amount of electricity required for the enrichment process. It is estimated that this alone would be able to decrease the overall enrichment costs by 50%. Because the enrichment costs were \$42 per unit under the gas diffusion process, this would be cut to \$21 per unit. Finally, the new plant is expected to have an eventual maximum capacity of 6.5 million SWU, almost twice as much as the 3.5 million SWU capacity of the Paducah plant. This capacity would not likely go to waste, either, as management is confident that SWU demand would allow the ACP plant to run at full capacity. Even so, several deterrents exist. First of all, USEC would have to pay a 1% royalty to the Department of Energy since they played a pivotal role in the research and development of the facility. In addition, profits from the new plant would not be generated until 2011, five years after the initial investment. Because USEC's beta is 1.3 (greater than 1), its cost of equity is greater than the market as a whole. This increases the weighted average cost of capital, increases the discount rate and decreases the net present value of the investment. In conclusion, USEC should not only calculate the expected net present value of this capital budgeting project, but it should run a sensitivity analysis as well. Because the prices of uranium and SWU are so volatile, changes in market conditions could have a drastic effect on the net present value of the project. Because the project is on such a large scale, it may be prudent to question the assumption that the risk of the project is the same as the risk of the whole firm. If this project is particularly risky, perhaps a higher discount rate would be appropriate.