Case 13

AUTOMOTIVE SPECIALTIES, INCORPORATED

Automotive Specialties, Incorporated (ASI) is a domestic division of a multinational holding company, and it has been invited by its largest customer (also a large multinational firm) to build a new plant in the small South American country of Mesa Verde. Jamie Miles, assistant treasurer of ASI, has reviewed the customer's proposal and she has developed several analyses and forecasts of her own to supplement that information. Although most of the uncertainty of foreign investment will be handled through the liason with ASI's customer, Fujimora Transport, the value of the investment hasn't yet been determined. In addition, the customer may have motives that the management of ASI will need to consider before committing funds to such an ambitious project.

INTRODUCTION

With so many deadlines and fires to fight, Jamie Miles saw no end to her day. She had grown to love her job, and especially the title of "Assistant Treasurer", but no amount of amour or prestige could smooth over the eyestrain or hasty lunches in the company canteen. In obtaining the title of Assistant Treasurer, and the fancy business cards that came with it, Jamie had worked ninety-hour weeks for as long as she could remember. Holidays were just something noted on a calendar; they were days when she could work uninterrupted by phone calls. She could remember her last year of school, and how things had seemed so tough then. After a six-month job search, endless interviews, and a year on the job, the last couple of semesters' of work toward her finance degree seemed to have been another life entirely. She had no doubt that the next few weeks would be more intense, yet, as she helped prepare the capital budget for the upcoming year.

Most of the projects that crossed her desk were routine replacements of existing equipment or expansions of product lines into new markets. The project that was giving her the most trouble, this week, involved the decision to enter into an agreement to open a plant offshore. One of her best customers, Fujimora Transport, operated several assembly plants in South America. Fujimora had proposed that Automotive Specialties build a new plant adjacent to one of the Fujimora facilities in an effort to streamline inventory management and reduce costs. In fact, the proposal from Fujimora guaranteed funding of the operation at a reasonable cost of capital, promised to secure the legal (and political) arrangements, and

included compensation for training and personnel services for local workers who would be hired to operate the machines at the new plant. In addition, Fujimora had agreed that the facility should have a large enough capacity to allow Automotive Specialties to not only meet the current and future needs of Fujimora, but also to allow the company to expand its customer base in the region. Automotive Specialties' board of directors had agreed to fund a site survey and had commissioned Jamie to investigate the proposition prior to making a final commitment.

AUTOMOTIVE SPECIALTIES

Automotive Specialties, Incorporated (ASI) had existed in one form or another since the 1930s. It was a division of a larger firm, Stevens-Simper, Incorporated. Stevens-Simper had been around almost as long, and currently had operations in twelve other countries, with products and services ranging from automotive parts (with ASI) to underwater salvage and recovery. ASI was a small part of the conglomerate, and it was allowed to pursue opportunities each year and develop markets as its managers saw fit. The parent firm helped with raising capital and set targets for shareholder returns, but it left ASI to make most investment decisions independently. In fact, Jamie often used her counterparts in the "home office" as unofficial audiences for upcoming proposals for ASI's board, and the Stevens-Simper treasurer's office had provided a great deal of wisdom and expertise on many occasions.

ASI "specialized" in powdered metal fabrication. The firm mixed various types of metals in powdered form, pressed this powder into engine components, and then used skilled machine operators to finish the products into completed units. ASI's advantage was a patented process for pressing and sintering the products. In most cases, the resulting gears or cams would have little need for costly finishing labor. Because ASI refused to license this technology, the firm enjoyed a lower cost of production than most of its competitors. In addition, ASI products were often of much higher quality than the next best alternative. Given the company's research and expertise in the area, and the continuing refinements being made to the process, it was expected to continue this lead under its patent protection for the next five to eight years, at a minimum.

Fujimora had relied on ASI products for the past ten years, and sales to Fujimora represented almost 40 percent of ASI's annual revenue. ASI components were used in Fujimora products around the world, and ASI continually won praise and production bonuses from the firm. Many of the ASI executives and production staff had traveled to Japan to train and enjoy the hospitality of their best customer, and the relationship continued to develop as successive quarters of record output and quality went by. To be sure, ASI would continue to be a major supplier of components to Fujimora regardless of the decision to expand the smaller firm's facilities overseas.

MESA VERDE

The new plant was to be built in Mesa Verde, a small country located on the west coast of South America. Although many of its neighbors had experienced turbulent political situations in the recent past, Mesa Verde had been lucky. The country was a representative republic, with many of its laws and customs influenced by its trade with the US and Britain over the past thirty years. The current president had been in power for several years, and the country had enjoyed the right to elect its government for almost two generations. Due to its geographic isolation, the mountainous country had avoided conflicts with neighboring states as well. The resulting stability had allowed Mesa Verde to develop the infrastructure and human capital to support many diverse industries. In addition, Mesa Verde's diplomatic relationships with the developing markets of Brazil and Argentina provided opportunities for local firms to compete and reinvest their earnings in their homeland. Mesa Verde wasn't a perfect location, but it was one of the safest places that ASI could invest overseas. With Fujimora's backing and reputation in Mesa Verde, Jamie felt that ASI was being given a terrific opportunity.

ASI - MESA VERDE

The proposed plant would produce powdered metal products, initially, to meet the demand of the Fujimora plant in Mesa Verde. Currently, the Fujimora plant there ordered approximately ten percent of its purchases from ASI's domestic operation, with the remaining needs of the plant being met by small local shops or other offshore facilities. The Fujimora proposal was based on hiring and training many of the firm's local suppliers for work at the new ASI operation. Jamie had reviewed the expected demand quantities in the proposal and developed her own estimates of unit demand at the Mesa Verde plant (Exhibit 1). In the table, Jamie listed the expected Fujimora demand for each product as "Mesa Verde" and eventual sales to other firms and/or markets as "other markets."

Exhibit 1. Expected Demand for Powdered Metal Products
ASI - Mesa Verde Plant
(annual units, in thousands)

Product	2006	2007	2008	2009	2010	2011
SKU 517						
Mesa Verde	155.10	160.60	167.00	173.70	181.07	189.18
other markets				43.43	45.27	47.30
SKU 453						
Mesa Verde	172.51	179.76	187.74	196.51	206.16	216.78
other markets				49.13	51.54	54.93
SKU 367a						
Mesa Verde	121.55	125.78	129.65	134.10	139.22	145.10
other markets				44.70	46.41	48.37

After reviewing the domestic cost estimates, Jamie thought that the current cost of goods sold allowance for each Mesa Verde product was close to the projected cost at the new plant, but she decided that she would need to lower the cost of labor factored into each. Currently, the cost of producing SKU 517, domestically, was approximately 67 percent of its unit selling price; in Mesa Verde, this would likely be lowered by twenty percent, to approximately 53.6 percent of the selling price. For SKU 453 and SKU 367a, the reduction would be similar, but these products had domestic costs of goods sold of 70 percent and 62 percent, respectively. In addition to reductions in cost, though, the firm would have to lower unit prices to accomodate Fujimora's wishes, and Jamie had compiled a listing of revised prices (adjusted for local inflation) in order to get an estimate of revenues for the proposed plant (Exhibit 2). Her numbers were based on her own research regarding the Mesa Verde economy, current and historical exchange rate trends, and the political history of monetary policy in the small country. The official currency of Mesa Verde was the royale, and it had enjoyed remarkable stability against the U.S. dollar in recent years. Because the Mesa Verde operation would be trading with other currencies which were not as strong, Jamie estimated prices for exports in royales as well.

Exhibit 2. Expected Unit Prices for Powdered Metal Products
ASI - Mesa Verde Plant

Product	2006	2007	2008	2009	2010	2011
SKU 517						
U.S. price	$10.75	$11.13	$11.52	$11.92	$12.34	$12.77
Mesa Verde	R860	R868.14	R875.52	R882.08	R888.48	R893.90
SKU 453						
U.S. price	$11.17	$11.67	$12.20	$12.75	$13.32	$13.92
Mesa Verde	R893.60	R910.26	R927.20	R943.50	R959.04	R974.40
SKU 367a						
U.S. price	$20.67	$21.39	$22.14	$22.92	$23.72	$24.55
Mesa Verde	R1,653.60	R1668.42	R1682.64	R1695.08	R1707.84	R1718.50

Current estimates of operating expenses were approximately ten percent of per-unit prices, domestically, and this was expected to increase to sixteen percent in Mesa Verde in the first two years of the new plant's operation. Jamie expected operating costs to decrease by 2007 to an estimated 13.5 percent of unit price, and the Fujimora estimates agreed with this, more or less.

According to both the Fujimora proposal and the engineer's report on her desk, the plant would cost approximately $11.6 million to build (beginning immediately), and it could be in operation at the end of the next calendar year (2005). It would require an additional working capital outlay of approximately $1.2 million, which wouldn't be needed until the start of operations in early 2006. The engineer's report and site survey had already cost the firm $100,000 in the prior quarter.

Even though Fujimora had agreed to secure financing for the project, Jamie's contacts at Stevens-Simper had suggested that she use the allocated weighted-average cost of capital that ASI used for domestic projects when discounting the Mesa Verde proposal. Currently, that hurdle rate was set at 10.95 percent. Jamie had considered adjusting the hurdle rate for the extra risk inherent when investing in emerging markets, but her advisors warned against this, suggesting that she apply any risk adjustments to the cash flows instead. Depending upon her assessment of the political risk of the investment, Jamie knew that she could always adjust each annual cash flow (after taxes) downward by some amount. Due to the safe economic and political environment of Mesa Verde, Jamie didn't plan on adjusting cash flows for political risk. In addition, she had already adjusted her demand estimates for uncertainty.

Her advisors also suggested that any risk stemming from expected fluctuations in the overall economy and exchange rates should be incorporated into Jamie's projection of exchange rates. Jamie planned to address this type of risk by completing analyses of several different scenarios which would illustrate the uncertainty of the cash flows from the Mesa Verde project due to a weakening royale. As for her sales estimates, Jamie felt certain that Fujimora would stand ready to purchase the necessary units of each SKU from domestic production in the event that the Mesa Verde operation proved untenable. After all, this plant had been Fujimora's idea in the first place!

One of Jamie's friends at the "home office" had suggested, quietly, that Fujimora would offer to purchase the ASI operation at the end of Jamie's planning horizon of six years. Most likely, the firm could negotiate with Fujimora to obtain a fair price, or one which would at least cover ASI's investment in the plant. Jamie would calculate a "terminal value" for the plant in 2011 based upon treating the annual cash flow in that year as a perpetuity. To value that cash flow stream, she had decided to use the firm's cost of capital as a rough approximation of the required return on such a perpetuity. Because the project will be sold as a complete operation in the final year, the working capital contribution would not be recovered in the final period. In addition, the revenues earned in Mesa Verde would be subject to the local marginal tax rate of 45 percent, and ASI could depreciate the initial investment over the six year period using the straight-line method approved for corporations in Mesa Verde. Under the current U.S. tax code and several treaties, profits from Mesa Verde wouldn't be subjected to additional corporate taxes once they were brought back into the country by ASI.

By the time Jamie had reviewed this information and summarized her notes for the board, it would be well past her normal lunch hour. She stood and walked to the office door, opening it and noticing her name and title stenciled on the frosted glass. As she headed to the canteen, yet again, she thought about the Mesa Verde plant and wondered when she would get to see it for herself. How often did assistant treasurers get to go on fact-finding missions?

REQUIRED

1. Using the demand and price estimates in Exhibits 1 and 2, develop annual revenue projections for the Mesa Verde project.

2. Using the information in the case, develop estimates of the cost of goods sold for each SKU, operating costs, and depreciation expense for the Mesa Verde plant for each of the next six years.

3. According to the budgeted figures calculated for Questions 1 and 2, produce a discounted cash flow analysis for the Mesa Verde project. Include estimates of the project's net present value and internal rate of return. Express the annual cash flows and net present value in dollars, according to Jamie's estimate of the royale-to-dollar exchange rate. (According to the numbers in Exhibit 2, the estimated exchange rate today and in 2006 will be R80 per dollar, and this is expected to appreciate by R2 each year afterwards.) Should ASI accept the project?

4. Jamie's initial estimates assume that the royale will strengthen over the next several years. Reproduce the analysis asked for in Questions 1 through 3 to reflect the possibility that the royale will weaken (by R2 per year) against the dollar over the project's planning horizon. Should the new plant be built?

5. Jamie consulted several economists and the World Wide Web and found that the chance of the royale weakening (in the manner described in Question 4) is approximately 38 percent. Calculate the project's expected net present value and internal rate of return using this additional information. How should this impact Jamie's recommendation?

6. What other considerations should ASI make when deciding upon the Mesa Verde investment?