Financial Analysis in Support of the Proposed Disposal of USAID Trucks in Albania

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Introduction

The Government of the United States, through the Agency for Industrial Development (USAID), is working closely with the Government of Albania (GOA) to assist the GOA and potential enterprises in the transition from a centralized, state-controlled system to a market economy system. It is recognized that the agriculture sector in Albania is confronting many difficulties in this transition. In order to alleviate some of these problems, USAID through the International Fertilizer Development Center (IFDC) provided about 30,000 mt of fertilizer (urea and diammonium phosphate) during 1992/93 under the terms of an emergency commodity assistance program. At the time the fertilizer was brought into the country, the existing transport equipment in Albania (largely owned by the state enterprises) was old and not reliable for sustained transport of the fertilizer from the ocean port to distribution centers and to the end users. Since the prompt delivery of the fertilizer to the farmers was essential for the success of the emergency fertilizer assistance program, USAID through IFDC provided 30 trucks having a nominal capacity of 10 mt each to facilitate the efficient distribution of the imported fertilizer. The trucks arrived in Albania in April and May 1992.

Once the initial objective of distributing the emergency supply of fertilizer was accomplished, the next objective is now to dispose of the trucks in the most appropriate manner. To this end a study entitled "Assessment of Best Approaches for Disposal of USAID Trucks in Albania" was performed by United Management Systems Incorporated (UMSI), an IFDC subcontractor. The results of this study were reported to USAID in March 1993.

UMSI identified five disposal options for the trucks. These options are to (1) donate the trucks to the Ministry of Agriculture, (2) sell the trucks at a public auction, (3) set up cooperative corporations, (4) sell the trucks in the United States, and (5) form a joint venture with other agencies whose primary objective will be to assist small- and medium-size businesses in Albania.

The objective of this financial study is to add an economic dimension to the disposal issue by analyzing the financial feasibility of purchasing and operating these trucks by private businesses assuming full financial costs. The study estimates the sale price of the trucks at which new, small private enterprises could profit from operating the trucks while helping to improve the overall economy of the country.

The most useful component of the study is that the selling price of a truck is indicated in accordance with the expected return that the buyer requires over the assumed 6-year operating life of the truck.

Truck Sale Value

Cash Flow Analysis

In keeping with the objective of assisting Albania with economic growth and using the trucks to estimate the economic development of a market economy system, an affordable sale price for the trucks has to be found to attract Albanian businessmen to purchase the trucks and obtain enough profit from their operation to enable them to repay the truck investment within a reasonable time period.

A cash flow analysis (CFA) was performed to evaluate the profit and the internal rate of return (IRR) that a private enterprise will obtain from the purchase of a truck or trucks. The cash flow analysis is based on mid-1993 information obtained in Albania and by some assumptions made in order to perform the study. The cash flow analysis shows that a truck would have to be purchased for about 1,348,600 Leks (US $12,260) to yield an IRR of 15.0% in real terms. The premises and assumptions used for this analysis are shown in Appendix A.

Discussion

Base Case

The CFA showed that if a private enterprise purchases one or more trucks it would be a profitable business only if the selling price for the trucks is fixed at about 1,348,600 Leks (US $12,260). With this selling price, the calculated IRR is 15% considering no inflation. An IRR of 15% in real terms is considered to be good for this type of business.

This indicates that the selling price of the trucks in Albania will have to be at about one-half of the "low blue book" value for such vehicles as described in the UMSI report. If the trucks were sold at their "low blue book" value, there would be no profit unless the rate charged for transporting goods was increased.

Sensitivity of IRR to Truck Selling Price

The base case calculated for this study shows that if the selling price of the truck is 1,148,600 Leks (US $12,260), an IRR of slightly over 15% will be obtained. An analysis was made to determine what would be the IRR at different truck selling prices, with all other parameters remaining the same. Figure 1 shows that if the truck selling price varies from 770,000 Leks (US $7,000) up to 1,430,000 Leks (US $13,000) the IRR varies from 56.4% to 13.4%, respectively.

Sensitivity of IRR to Transportation Rate

Since it is expected that transportation rates will increase in Albania in the near future, a sensitivity analysis was made to determine the IRR at different transportation rates. The base case transportation rate of 15 Leks/mt-km (current rate in Albania according to in-country information) yields an internal rate of return of 15%. Figure 2 shows the expected IRR at different transportation rates. From the base case of 15 Leks/mt-km that results in an IRR of 15%, the transportation rate was increased stepwise to 20 Leks/mt-km that results in an IRR of 41.4%. The IRR is highly sensitive to small variations in the transportation rate. For example, an increase in the transportation rate of 1 Lek/mt-km from 15 Leks/mt-km to 16 Leks/mt-km increases the IRR from 15% to 20.5%.

Sensitivity of IRR to Utilization Factor

For the base case it was assumed that the truck will have a utilization factor of 75% of the assumed operating time of 250 days per year. An operating time of 250 days per year represents a 100% utilization factor. If the utilization factor increases to 90% of the available 250 days per year, the IRR will increase to 31.1%, with all other factors remaining unchanged. Figure 3 shows the sensitivity of the IRR to different utilization rates.

Appendix A

Premises and Assumptions

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Premises and Assumptions

The information obtained in Albania follows:

1. Salary for the truck driver is between 300-400 Leks/day.
2. Diesel cost is 35 Leks/liter.
3. Fuel mileage of the USAID/IFDC trucks is 3 km/L.
4. Exchange rate used is 110 Leks = 1 U.S. dollar.
5. Profit tax rate is 30% of profit.
6. Small business tax is 70,000 Leks/year.
7. Land transport rate is 15 Leks/km/mt. This charge is for one-way loaded.
8. License plates cost 1,000 Leks/year.
9. Costs of insurance are as follows: (1) mandatory third-party liability with a cost of 20,000 Leks/year, (2) other coverage except theft at 2% of vehicle value per year, and (3) theft coverage at 2% of vehicle value per year.

The assumptions made to perform the study follow:

1. It is assumed that the useful life of each truck will be 6 years, and on the seventh year the trucks could be sold at 10% of the original purchase price as salvage value.
2. An average of 50 km delivery distance was considered for the study.
3. It is assumed that the truck could ideally operate about 250 days per year, which represents a utilization factor of 100%.
4. An average load of 7.5 mt per delivery was considered since the truck will not always operate with a full load.
5. Maintenance was calculated as a percent of the purchased value of the truck. A value equivalent to 15% of the purchased value of the truck per year is assumed to be spent by the truck owner for maintenance during each of the expected 6 years of operation of the truck.
6. The depreciation rate calculated per year was applied to the truck's original cost less the salvage or scrap value. A value equivalent to 10% of the original purchase cost of

the truck was taken as the salvage value. The difference between the original cost less the salvage value was divided by the 6 years of the useful life of the truck to obtain the straight line depreciation.

7. The purchase price of the truck was estimated so as to give an IRR of 15% in real terms, which is considered to be appropriate for this kind of business operation and to provide a reasonable payout.

8. The financial analysis is calculated on mid-1993 basis.

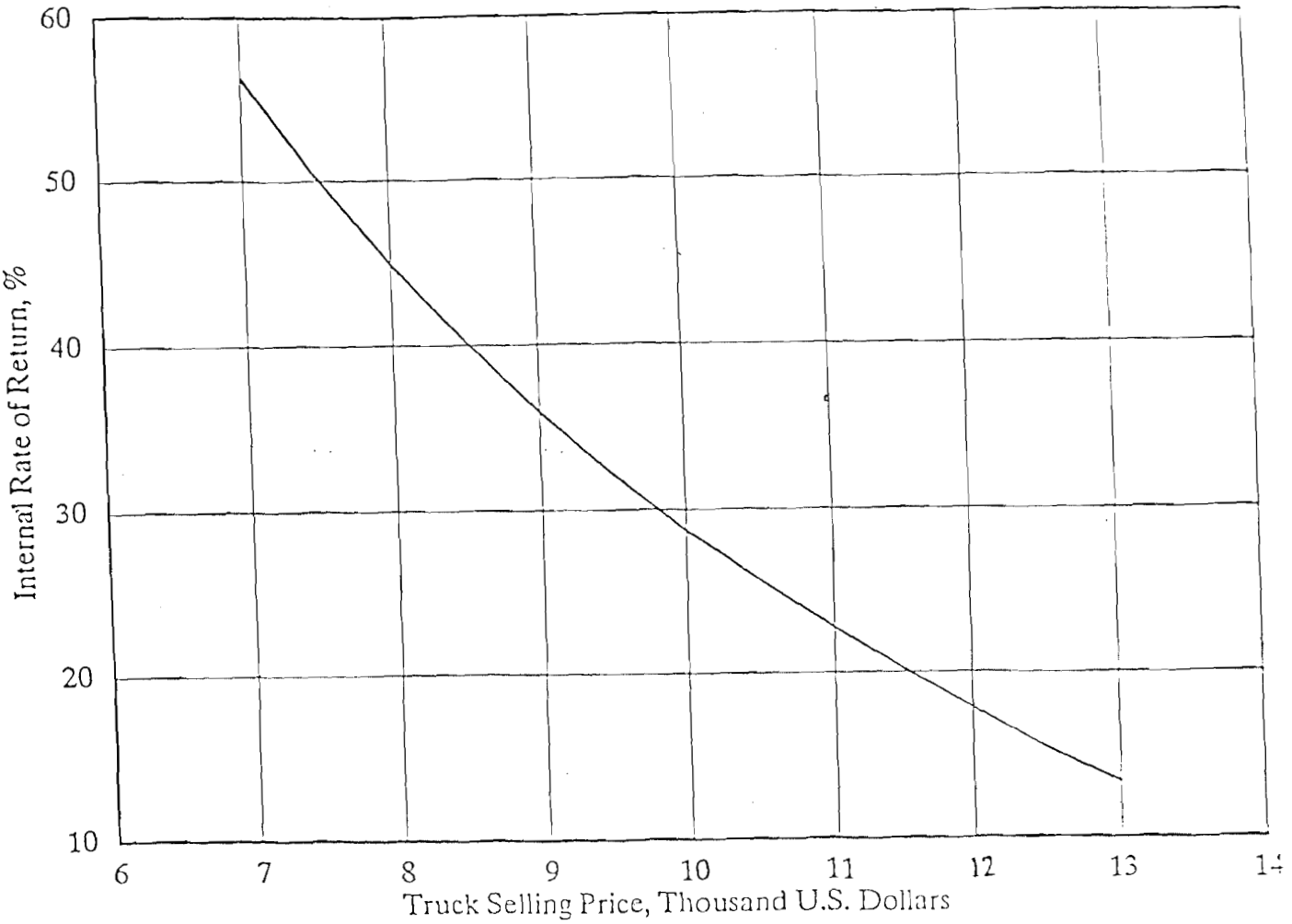

Figure 1.Internal Rate of Return at Different Truck Purchase Prices

Based on:

a. Transportation rate = 15 Leks/mt-km

b. 100% utilization factor = 250 days/year

c. All other premises and assumptions shown in Appendix A

Note:

IRR represents the return expected over the 6-year life of the truck and not the return expected each year.

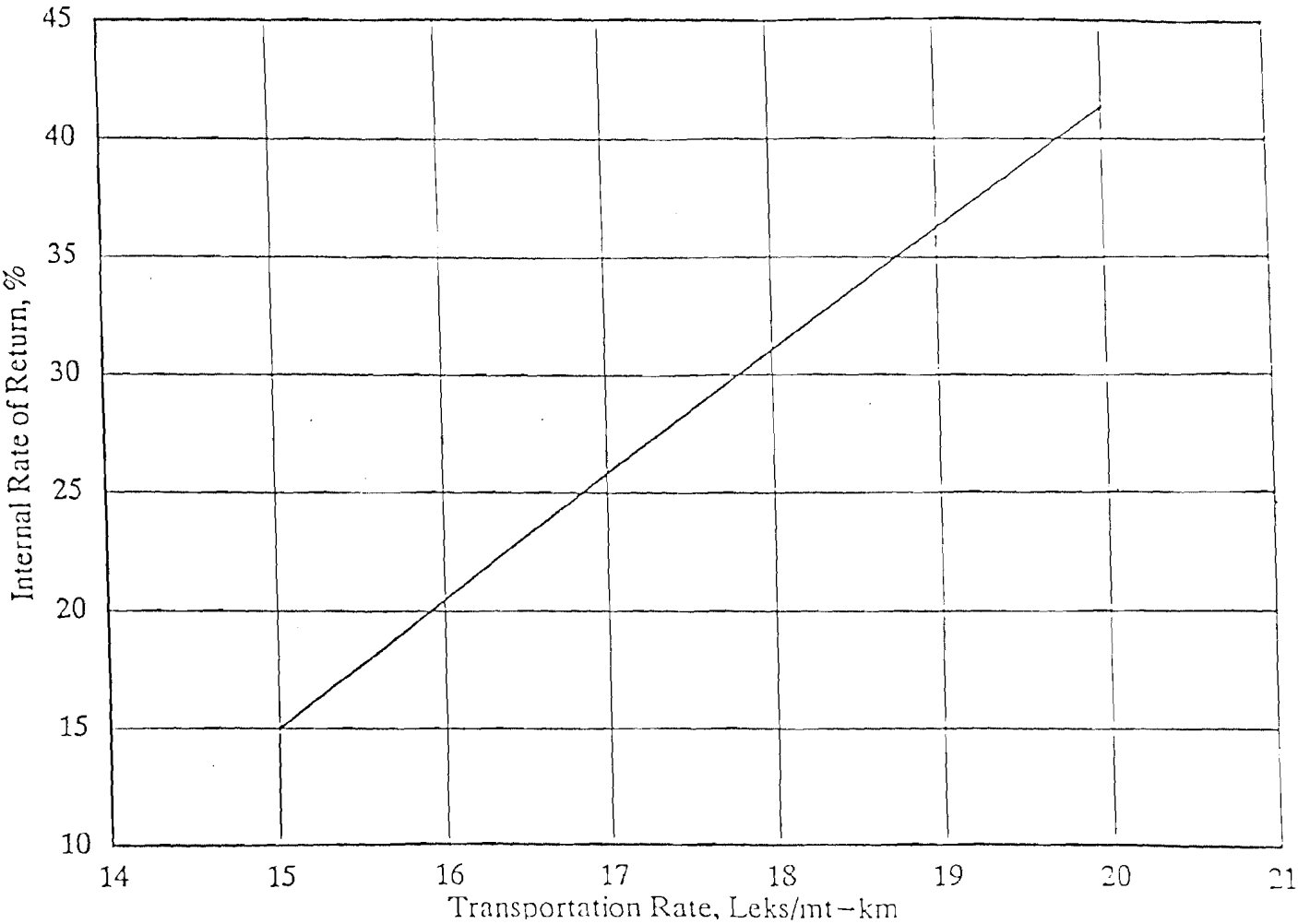

Figure 2. Internal Rate of Return at Different Transportation Rates.

Based on:

a. Truck Selling Price U.S. $12,260 (1,348,600 Leks)

b. 100% Utilization Factor = 250 days/year

c. All other Premises and Assumptions Shown in Appendix A

Note:

IRR represents the return expected over the 6-year life of the truck and not the return expected each year.

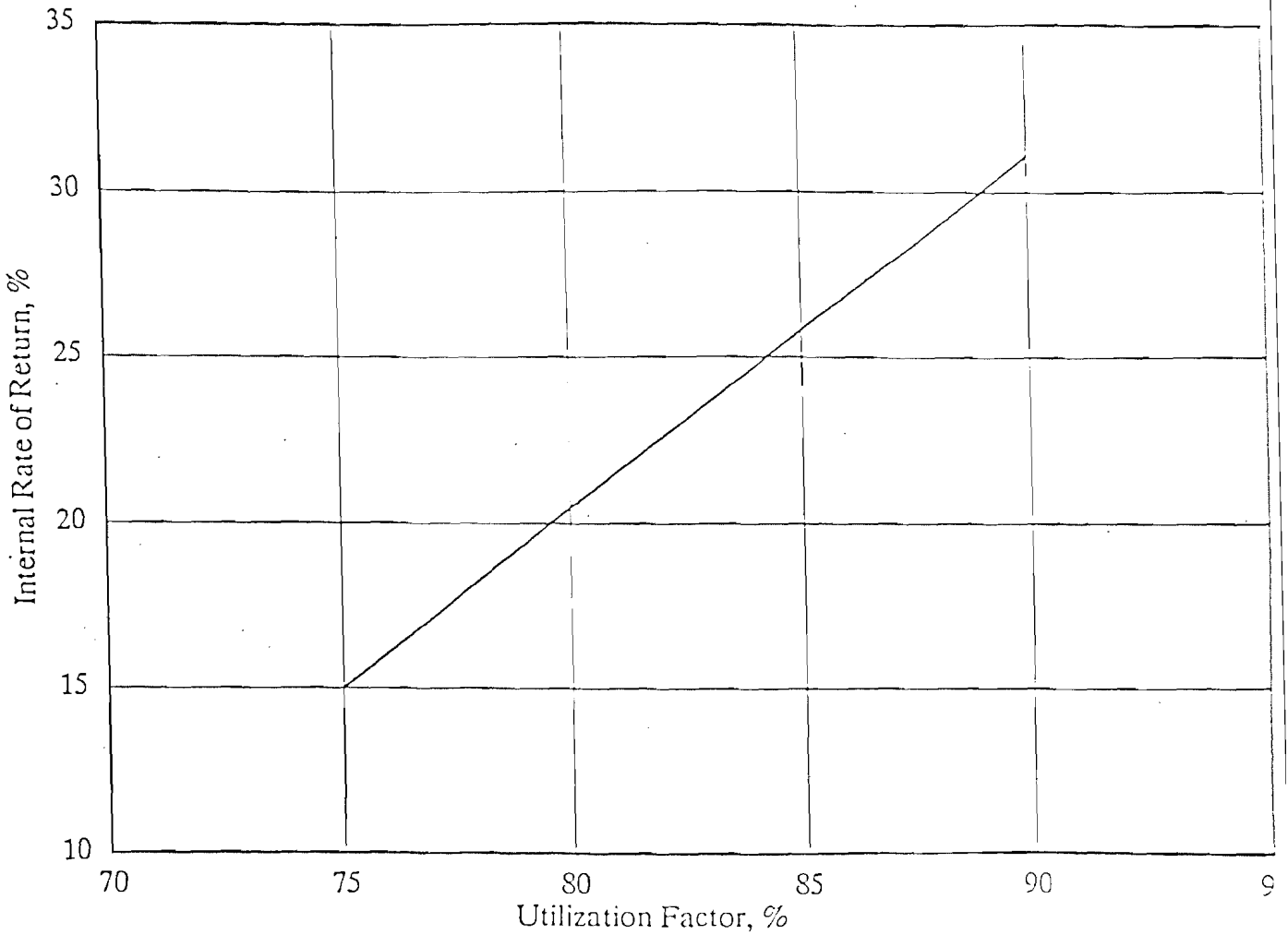

Figure 3. Internal Rate of Return as a function of the Utilization Factor.

Based on:

a. Truck Selling Price U.S. $12,260 (1,348,600 Leks)

b. Transportation Rate = 15 Leks/mt-km

c. All other Premises and Assumptions Shown in Appendix A

Note:

IRR represents the return expected over the 6-year life of the truck and not the retur
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