

**COM 402.2**  
**INTERNATIONAL FINANCIAL MANAGEMENT**  
**Topic: Project Financing Decisions**

In corporate finance capital budgeting is about taking decisions about long term investment, which cash flows are spread over a long period and initial investment will be huge in nature. The evaluation of such long-term decisions in financial terms is called capital budgeting. The term 'capital' refers to investment in assets/resources whereas 'budgeting' means the analysis and assessment of cash flows (inflows and outflows). Here, assets refer to machinery or technology which creates some kind of physical asset or some kind of capital which provides return to us. The investment decisions that are considered include expansion, acquisition of new resources, modernization or replacement of old machinery. When we talk about domestic capital budgeting, the fluctuation of exchange rate is not considered. Similarly, many other issues relating to political risk, subsidies, royalty payments, differential taxation are not taken into account.

In the case of international CB decision, we will have to take into account investment proposal and international level cash flows, both inflows and outflows. In such decisions there are several issues relating to exchange rate fluctuations, capital market segmentation, capital market integration, issue related to arrangement of investment, issue related to international taxation, issue related to country taxation, issue related to subsidy, royalty payment, political risk, many other things are there in international level of discussion or capital budgeting side. In assessing the proposals in capital budgeting, the net present value is the most common method. It might already be known to students of finance that if the NPV exceeds zero, the project is accepted. If it is negative, the project is rejected and if it is zero, the decision-maker is irrelevant to acceptance or rejection. Thus, the decision is taken after discounting the future cash flows to the present value.

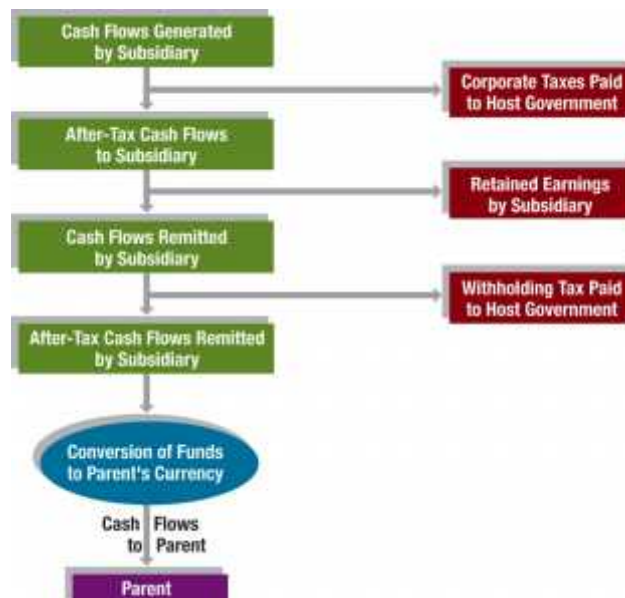
The investment decision is not always related to a new investment proposal. It may be related to purchase of an asset, running a project, replacement of an asset and similar such decisions that involve a huge amount of cash flow as investment and which generates cash flows over a period of time. We need to note that the capital budgeting decision should be such that it will lead to an increase in shareholders' wealth.

Complexity in decision making

In comparison to domestic capital budgeting, there are many issues that the decision-maker has to consider like taxation, subsidy, royalty payment, changing discount rate and others. The discount rate is very difficult to find because discount rate depends

upon, depends upon what is the opportunity cost available in the economy. For simplicity sake, we consider the opportunity cost as constant. The issue of exchange rate risk is also very vital as the cash flows of the subsidiary which is generated in a foreign country is required to be converted into the domestic currency. At the time of bringing back the cash flow to the domestic country, the issue of withholding taxation arises apart from the income tax rate of the foreign nation. Also, it may so happen that the foreign nation has lower taxes compared to the domestic country. There may also be a case of the country providing some kind of royalty for bringing. The company may also be receiving royalties for bringing some kind of technology.

In general, the flow of funds from the subsidiary to the domestic/parent company takes place in the following manner.



Source: International Financial Management, Jeff Madura

In a nut-shell, we can therefore say that the capital budgeting decision at the international level is a really difficult task not just it is about future cash flows but because of the involvement of many factors that may be anticipated or may come as surprise to the foreign subsidiary.

The following case will help to understand the concept. The problem is taken from International Financial Management by Jeff Madura, Cengage Learning (2012)

- Initial investment: S\$ 20 million (S\$ = Singapore dollars)

- Price and consumer demand:

Year 1 and 2: 60,000 units @ S\$350/unit

Year 3: 100,000 units @ S\$360/unit

Year 4: 100,000 units @ S\$380/unit

- Costs

Variable costs: Years 1 & 2 S\$200/unit, Year 3 S\$250/unit, Year 4 S\$260/unit

Fixed costs: S\$2 million per year

- Tax laws: 20 percent income tax
- Remitted funds: 10 percent withholding tax on remitted funds
- Exchange rates: Spot exchange rate of \$0.50 for Singapore dollar
- Salvage values: S\$12 million

Required rate of return: 15 percent

The solution is there in the picture below.

	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4
1. Demand		60,000	60,000	100,000	100,000
2. Price per unit		<u>S\$350</u>	<u>S\$350</u>	<u>S\$360</u>	<u>S\$380</u>
3. Total revenue = (1) × (2)		S\$21,000,000	S\$21,000,000	S\$36,000,000	S\$38,000,000
4. Variable cost per unit		S\$200	S\$200	S\$250	S\$260
5. Total variable cost = (1) × (4)		S\$12,000,000	S\$12,000,000	S\$25,000,000	S\$26,000,000
6. Annual lease expense		S\$1,000,000	S\$1,000,000	S\$1,000,000	S\$1,000,000
7. Other fixed annual expenses		S\$1,000,000	S\$1,000,000	S\$1,000,000	S\$1,000,000
8. Noncash expense (depreciation)		<u>S\$2,000,000</u>	<u>S\$2,000,000</u>	<u>S\$2,000,000</u>	<u>S\$2,000,000</u>
9. Total expenses = (5) + (6) + (7) + (8)		S\$16,000,000	S\$16,000,000	S\$29,000,000	S\$30,000,000
10. Before-tax earnings of subsidiary = (3) – (9)		S\$5,000,000	S\$5,000,000	S\$7,000,000	S\$8,000,000
11. Host government tax (20%)		<u>S\$1,000,000</u>	<u>S\$1,000,000</u>	<u>S\$1,400,000</u>	<u>S\$1,600,000</u>
12. After-tax earnings of subsidiary		S\$4,000,000	S\$4,000,000	S\$5,600,000	S\$6,400,000
13. Net cash flow to subsidiary = (12) + (8)		S\$6,000,000	S\$6,000,000	S\$7,600,000	S\$8,400,000
14. S\$ remitted by subsidiary (100% of net cash flow)		S\$6,000,000	S\$6,000,000	S\$7,600,000	S\$8,400,000
15. Withholding tax on remitted funds (10%)		<u>S\$600,000</u>	<u>S\$600,000</u>	<u>S\$760,000</u>	<u>S\$840,000</u>
16. S\$ remitted after withholding taxes		S\$5,400,000	S\$5,400,000	S\$6,840,000	S\$7,560,000
17. Salvage value					S\$12,000,000
18. Exchange rate of S\$		\$0.50	\$0.50	\$0.50	\$0.50
19. Cash flows to parent		\$2,700,000	\$2,700,000	\$3,420,000	\$9,780,000
20. PV of parent cash flows (15% discount rate)		\$2,347,826	\$2,041,588	\$2,248,706	\$5,591,747
21. Initial investment by parent	\$10,000,000				
22. Cumulative NPV		-\$7,652,174	-\$5,610,586	-\$3,361,880	\$2,229,867

Thus, it is evident that the net present value is positive (see the cumulative NPV at the end of the fourth year, the last year of the project).