Chapter 18
Multinational Capital Budgeting and Cross-Border Acquisitions

Questions

18-1. Capital Budgeting Theoretical Framework. Capital budgeting for a foreign project uses the same theoretical framework as does domestic capital budgeting. What are the basic steps in domestic capital budgeting?

Multinational capital budgeting, like traditional domestic capital budgeting, focuses on the cash inflows and outflows associated with prospective long-term investment projects. Multinational capital budgeting techniques are used in traditional FDI analysis, such as in the construction of a manufacturing plant in another country, as well as in the growing field of international mergers and acquisitions.

Capital budgeting for a foreign project uses the same theoretical framework as does domestic capital budgeting—with a few very important differences. The basic steps are:

1. Identify the initial capital invested or put at risk.
2. Estimate cash flows to be derived from the project over time, including an estimate of the terminal or salvage value of the investment.
3. Identify the appropriate discount rate for determining the present value of the expected cash flows.
4. Apply traditional capital budgeting decision criteria such as net present value (NPV) and internal rate of return (IRR) to determine the acceptability of or priority ranking of potential projects.

18-2. Foreign Complexities. Capital budgeting for a foreign project is considerably more complex than the domestic case. What are the factors that add complexity?

Capital budgeting for a foreign project is considerably more complex than the domestic case. Several factors contribute to this greater complexity:

- Parent cash flows must be distinguished from project cash flows. Each of these two types of flows contributes to a different view of value.
- Parent cash flows often depend on the form of financing. Thus we cannot clearly separate cash flows from financing decisions, as we can in domestic capital budgeting.
- Additional cash flows generated by a new investment in one foreign subsidiary may be in part or in whole taken away from another subsidiary, with the net result that the project is favorable from a single subsidiary’s point of view, but contributes nothing to worldwide cash flows.
- The parent must explicitly recognize remittance of funds because of differing tax systems, legal and political constraints on the movement of funds, local business norms, and differences in the way financial markets and institutions function.
- An array of nonfinancial payments can generate cash flows from subsidiaries to the parent, including payment of license fees and payments for imports from the parent.
- Managers must anticipate differing rates of national inflation, because of their potential to cause changes in competitive position, and thus changes in cash flows over a period of time.
- Managers must keep the possibility of unanticipated foreign exchange rate changes in mind, because of possible direct effects on the value of local cash flows, as well as indirect effects on the competitive position of the foreign subsidiary.
• Use of segmented national capital markets may create an opportunity for financial gains, or may lead to additional financial costs.

• Use of host-government subsidized loans complicates both capital structure and the parent’s ability to determine an appropriate weighted average cost of capital for discounting purposes.

• Managers must evaluate political risk because political events can drastically reduce the value or availability of expected cash flows.

• Terminal value is more difficult to estimate, because potential purchasers from the host, parent, or third countries, or from the private or public sector, may have widely divergent perspectives on the value to them of acquiring the project.


a. Why should a foreign project be evaluated from both a project and a parent viewpoint? A strong theoretical argument exists in favor of analyzing any foreign project from the viewpoint of the parent. Cash flows to the parent are ultimately the basis for dividends to stockholders, reinvestment elsewhere in the world, repayment of corporate-wide debt, and other purposes that affect the firm’s many interest groups. However, since most of a project’s cash flows to its parent, or to sister subsidiaries, are financial cash flows rather than operating cash flows, the parent viewpoint usually violates a cardinal concept of capital budgeting, namely, that financial cash flows should not be mixed with operating cash flows. Often the difference is not important because the two are almost identical, but in some instances a sharp divergence in these cash flows will exist.

Evaluation of a project from the local viewpoint serves some useful purposes, but it should be subordinated to evaluation from the parent’s viewpoint. In evaluating a foreign project’s performance relative to the potential of a competing project in the same host country, we must pay attention to the project’s local return. Almost any project should at least be able to earn a cash return equal to the yield available on host government bonds with a maturity the same as the project’s economic life, if a free market exists for such bonds. Host government bonds ordinarily reflect the local risk-free rate of return, including a premium equal to the expected rate of inflation. If a project cannot earn more than such a bond yield, the parent firm should buy host government bonds rather than invest in a riskier project.

b. Which viewpoint, project or parent, gives results closer to the traditional meaning of net present value in capital budgeting? Multinational firms should invest only if they can earn a risk-adjusted return greater than locally based competitors can earn on the same project. If they are unable to earn superior returns on foreign projects, their stockholders would be better off buying shares in local firms, where possible, and letting those companies carry out the local projects. Apart from these theoretical arguments, surveys over the past 35 years show that in practice, multinational firms continue to evaluate foreign investments from both the parent and project viewpoints.

c. Which viewpoint gives results closer to the effect on consolidated earnings per share? The attention paid to project returns in various surveys probably reflects emphasis on maximizing reported consolidated net earnings per share as a corporate financial goal. As long as foreign earnings are not blocked, they can be consolidated with the earnings of both the remaining subsidiaries and the parent. As mentioned previously, U.S. firms must consolidate foreign subsidiaries that are over 50% owned. If a firm is owned between 20% and 49% by a parent, it is called an affiliate. Affiliates are consolidated with the parent owner on a pro rata basis. Subsidiaries less than 20% owned are normally carried as unconsolidated investments. Even in the case of temporarily blocked funds, some of the most mature MNEs do not necessarily eliminate a project from financial consideration. They take a very long-run view of world business opportunities.

18-4. Which Cash Flows? Capital projects provide both operating cash flows and financial cash flows. Why are operating cash flows preferred for domestic capital budgeting, but financial cash flows given major consideration in international projects?
If reinvestment opportunities in the country where funds are blocked are at least equal to the parent firm’s required rate of return (after adjusting for anticipated exchange rate changes), temporary blockage of transfer may have little practical effect on the capital budgeting outcome, because future project cash flows will be increased by the returns on forced reinvestment. Since large multinationals hold a portfolio of domestic and foreign projects, corporate liquidity is not impaired if a few projects have blocked funds; alternate sources of funds are available to meet all planned uses of funds. Furthermore, a long-run historical perspective on blocked funds does indeed lend support to the belief that funds are almost never permanently blocked. However, waiting for the release of such funds can be frustrating, and sometimes the blocked funds lose value while blocked, because of inflation or unexpected exchange rate deterioration, even though they have been reinvested in the host country to protect at least part of their value in real terms.

18-5. **Risk-Adjusted Return.** Should the anticipated internal rate of return (IRR) for a proposed foreign project be compared to (1) alternative home country proposals, (2) returns earned by local companies in the same industry and/or risk class, or (3) both? Justify your answer.

The key to distinction is “risk-adjusted.” Foreign projects will be, by most methodologies, of higher risk than a domestic or home country project. The anticipated returns should therefore take this into consideration. At the same time, comparing expected returns with those earned by local companies in the target markets will not capture the cross-border risks (such as blocked funds) that a foreign investor may experience. In the end, the answer is (3), both of the above, and more.

18-6. **Blocked Cash Flows.** In the context of evaluating foreign investment proposals, how should a multinational firm evaluate cash flows in the host foreign country that are blocked from being repatriated to the firm’s home country?

The impact of blocked funds on the rate of return from the investor’s perspective would depend on when the blockage occurs, what reinvestment opportunities exist for the blocked funds in the captive country, and when the blocked funds would eventually be released to the investor. As with all cash flow-based financial analyses, the critical element is when the parent investor will regain the ability to move the blocked funds freely.

18-7. **Host Country Inflation.** How should an MNE factor host country inflation into its evaluation of an investment proposal?

Inflation is factored into the expected cash flows of the project rate of return. Relative inflation affects the expected exchange rate due to purchasing power parity.

18-8. **Cost of Equity.** A foreign subsidiary does not have an independent cost of capital. However, in order to estimate the discount rate for a comparable host country firm, the analyst should try to calculate a hypothetical cost of capital. As part of this process, the analyst can estimate the subsidiary’s proxy cost of equity by using the traditional equation: \( k_e = k_{rf} + \beta (k_m - k_{rf}) \). Define each variable in this equation, and explain how the variable might be different for a proxy host country firm compared to the parent MNE.

The cost of capital and equity of a specific project or subsidiary such as this would be expressed in local currency terms, while the parent company will ultimately measure the project’s expected returns and risks based on its own parent currency terms. Therefore, the risk-free rate would be that of a local currency government bond. The market return would be the expected return on the market portfolio in the local market (typically based on recent historical returns). The local project’s beta would be first based on other like firms in the local market and their historical covariance with the variance of the market.

18-9. **Viewpoints.** What are the differences in the cash flows used in a project point of view analysis and a parent point of view analysis?

The project viewpoint focuses on the cash flows that are traditionally isolated and analyzed by any prospective investment—the operational cash flows of the proposed project (initial investment, operating
cash flows, terminal value). The parent viewpoint analysis must, however, focus on those cash flows that flow between the parent and the project of any kind—including operating cash flows (operating returns, intra-firm sales and margins, etc.), as well as financing cash flows (dividends as distributed to the parent from the project).

18-10. Foreign Exchange Risk. How is foreign exchange risk sensitivity factored into the capital budgeting analysis of a foreign project?

In the chapter problem the project team assumed that the Indonesian rupiah would depreciate versus the U.S. dollar at the purchasing power parity “rate” (approximately 20.767% per year in the baseline analysis). What if the rate of rupiah depreciation were greater? Although this event would make the assumed cash flows to Cemex worth less in dollars, operating exposure analysis would be necessary to determine whether the cheaper rupiah made Semen Indonesia more competitive.

For example, since Semen Indonesia’s exports to Taiwan are denominated in U.S. dollars, a weakening of the rupiah versus the dollar could result in greater rupiah earnings from those export sales. This serves to somewhat offset the imported components that Semen Indonesia purchases from the parent company that are also denominated in U.S. dollars. Semen Indonesia is representative of firms today that have both cash inflows and outflows denominated in foreign currencies, providing a partial natural hedge against currency movements.

What if the rupiah should appreciate against the dollar? The same kind of economic exposure analysis is needed. In this particular case, we might guess that the effect would be positive on both local sales in Indonesia and the value in dollars of dividends and license fees paid to Cemex by Semen Indonesia. Note, however, that an appreciation of the rupiah might lead to more competition within Indonesia from firms in other countries with now-lower-cost structures, lessening Semen Indonesia’s sales.

18-11. Expropriation Risk. How is expropriation risk factored into the capital budgeting analysis of a foreign project?

This is typical of the complexity of capturing political risk and its repercussions on financial performance in a prospective project analysis. Again, if expropriation risk is considered highly possible, the risk-adjusted return must capture it in some manner.

Many expropriations eventually result in some form of compensation to the former owners. This compensation can come from a negotiated settlement with the host government, or from payment of political risk insurance by the parent government. Negotiating a settlement takes time, and the eventual compensation is sometimes paid in installments over a further period of time. Thus the present value of the compensation is often much lower than its nominal value. Furthermore, most settlements are based on the book value of the firm at the time of expropriation, rather than on the firm’s market value.

18-12. Real Option Analysis. What is real option analysis? How is it a better method of making investment decisions than using traditional capital budgeting analysis?

Real options is a different way of thinking about investment values. At its core, it is a cross between decision-tree analysis and pure option-based valuation. It is particularly useful when analyzing investment projects that will follow very different value paths at decision points in time where management decisions are made regarding project pursuit. This wide range of potential outcomes is at the heart of real option theory. Real option valuation also allows us to analyze a number of managerial decisions that in practice characterize many major capital investment projects:

1. The option to defer
2. The option to abandon
3. The option to alter capacity
4. The option to start up or shut down (switching)
Real option analysis treats cash flows in terms of future value in a positive sense, whereas DCF treats future cash flows negatively (on a discounted basis). Real option analysis is a particularly powerful device when addressing potential investment projects with extremely long life spans, or investments that do not commence until future dates. Real option analysis acknowledges the way information is gathered over time to support decision-making. Management learns from both active (searching it out) and passive (observing market conditions) knowledge gathering, and then uses this knowledge to make better decisions.