LEARNING OBJECTIVES

- Demonstrate the operation of working capital management in a multinational enterprise and its various foreign subsidiaries.
- Analyze how multinational companies reposition their profits, cash flows, and capital within their multinational structures to maximize profitability, minimize global tax liability, and optimize their use of capital.
- Describe the role that royalties and license fees play in the repositioning strategies employed by MNEs.
- Learn how international dividend remittances are determined.
- Apply management guidelines to minimize the costs of funding working capital requirements.
- Identify devices used to manage cross-border cash settlement processes.
- Describe the different internal and external banking and financial services which may be used by MNEs in the conduct of global business.

Working capital management in an MNE requires managing the repositioning of cash flows, as well as managing current assets and liabilities, when faced with political, foreign exchange, tax and liquidity constraints. The overall goal is to reduce funds tied up in working capital while simultaneously providing sufficient funding and liquidity for the conduct of global business. This should enhance return on assets and return on equity. It also should improve efficiency ratios and other evaluation of performance parameters.

The first section of this chapter describes Trident’s operating cycle. The second section analyzes Trident’s fund repositioning decisions. The third section examines the constraints that affect the repositioning of Trident’s funds. The fourth section identifies alternative conduits for moving funds. The fifth section introduces the management of net working capital, including accounts receivable, inventory, and cash. The sixth and final section examines how working capital is financed, including the various types of banking services available. The chapter concludes with the Mini-Case, *Honeywell and Pakistan International Airways*, which demonstrates the complexity of working capital management for multinational firms operating in emerging markets.

*Morality is all right, but what about dividends?*
—Kaiser Wilhelm II.
**Trident Brazil’s Operating Cycle**

The operating and cash conversion cycles for Trident Brazil are illustrated in Exhibit 18.1. The operating cycle can be decomposed into five different periods, each with business, accounting, and potential cash flow implications.

- **Quotation period.** First noted in Chapter 10 when we explored transaction exposure, the quotation period extends from the time of price quotation, $t_0$, to the point when the customer places an order, $t_1$. If the customer is requesting a price quote in foreign currency terms, say Chilean pesos, Trident Brazil would now have a potential but uncertain foreign exchange transaction exposure during this period. The quotation itself is not listed on any of the traditional financial statements of the firm, although a firm like Trident Brazil would keep a worksheet of quotations extended and their time periods.

- **Input sourcing period.** Once a quotation has been accepted by the customer, the order is placed at time $t_1$. At this point, a contract is signed between the buyer and seller, describing the product to be delivered, likely timing of delivery, conditions of delivery, and price and financing terms. At this time, Trident Brazil would order those material inputs that it requires for the manufacture of the product which it does not currently hold in inventory. Depending on the individual sale, a cash deposit or down payment from the buyer is made at this point. If so, this would constitute the first actual cash flow associated with the order, a cash inflow to Trident Brazil, and that would initiate the *cash conversion cycle* for this transaction.

- **Inventory period.** As inputs are received, Trident Brazil assembles and manufactures the goods. The length of time during this inventory-manufacturing period, from $t_1$ to $t_2$, depends on the type of product (off-the-shelf versus custom built-to-specification), the
supply-chain integration of Trident Brazil with its various internal and external suppliers, and the technology employed by Trident itself.

**Accounts payable period.** As inputs arrive during this period they are listed as material and component inventories on the left-hand side of Trident Brazil’s balance sheet, with corresponding accounts payable entries on the right-hand side of the balance sheet. If the inputs are invoiced in foreign currencies, either from Trident USA, a sister subsidiary, or from external suppliers, they constitute foreign currency transaction exposures to Trident Brazil.

Note that the accounts payable period shown in Exhibit 18.1 begins at the same time as the inventory period, $t_2$, but may extend in time to $t_4$ after the inventory period ends. If Trident Brazil’s suppliers extend trade credit, Trident Brazil would have the ability to postpone paying for the inventory for an extended period of time. Of course, if Trident Brazil chooses not to accept trade credit, it may pay for the inputs as delivered. In this case, the accounts payable period would end before the inventory period—the manufacturing period—ends at time $t_5$. At whatever point in time Trident Brazil chooses to settle its outstanding accounts payables, it incurs a cash outflow.

**Accounts receivable period.** When the goods are finished and shipped, Trident Brazil records the transaction as a sale on its income statement, and books the transaction on its balance sheet as an account receivable. If it is a foreign currency-denominated invoice, the spot exchange rate on that date, $t_4$, is used to record the sale value in local currency. The exchange rate in effect on the date of cash settlement, $t_5$, would then be used in the calculation of any foreign exchange gains and losses associated with the transaction—the transaction exposure.

The length of the accounts receivable period depends on the credit terms offered by Trident Brazil, the choice made by the buyer to either accept trade credit or pay in cash, and country-specific and industry-specific payments practices. At cash settlement, Trident Brazil receives a cash inflow (finally) in payment for goods delivered. At time $t_5$, the transaction is concluded and all accounting entries—inventory items, accounts payable, and accounts receivable—are eliminated.

**Trident’s Repositioning Decisions**

Next, we describe the variety of goals and constraints on the repositioning of funds within Trident Corporation. Exhibit 18.2 depicts Trident, its wholly owned subsidiaries, the currency and tax rates applicable to each unit, and management’s present conclusions regarding each subsidiary’s growth prospects. Trident’s three foreign subsidiaries each present a unique set of concerns.

**Trident Europe**, the oldest of the three, is operating in a relatively high-tax environment (compared in principle to the tax rate in the parent country, the United States). It is operating in a relatively stable currency—the euro, and is free to move capital in and out of the country with few restrictions. The business itself is mature, with few significant growth prospects in the near future.

**Trident Brazil**, the result of a recent acquisition, is operating in a low-tax environment, but historically a volatile currency environment. It is subject to only a few current capital restrictions. Trident believes the business has very good growth prospects in the short- to medium-term if it is able to inject additional capital and managerial expertise into the business.
CHAPTER 18 Working Capital Management

EXHIBIT 18.2 Trident’s Foreign Subsidiaries

- **Trident Europe**, a new joint venture with a local partner that is a former unit of the Chinese government, is operating in a relatively low-tax environment, with a fixed exchange rate (the renminbi is managed within a very narrow band relative to the U.S. dollar). It is subject to a number of restrictions on capital. The business is believed to have the greatest potential—in the long run.

  In practice, Trident’s senior management in the parent company (corporate) will first determine its strategic objectives regarding the business developments in each subsidiary, and then design a financial management plan for the repositioning of profits, cash flows, and capital for each subsidiary. As a result of this process, Trident will now attempt to pursue the following repositioning objectives by subsidiary:

- **Trident China**: reposition profits from Germany to the United States while maintaining the value of the European market’s maturity to Trident Corporation
- **Trident Brazil**: reposition or in some way manage the capital at risk in Brazil subject to foreign exchange rate risk while providing adequate capital for immediate growth prospects
- **Trident China**: reposition the quantity of funds in and out of China to protect against blocked funds (transfer risk), while balancing the needs of the joint venture partner

**Constraints on Repositioning Funds**

Fund flows between units of a domestic business are generally unimpeded, but that is not the case in a multinational business. A firm operating globally faces a variety of political, tax, foreign exchange, and liquidity considerations which limit its ability to move funds easily and
without cost from one country or currency to another. These constraints are why multinational financial managers must plan ahead for repositioning funds within the MNE. Advance planning is essential even when constraints do not exist, for at some future date political events may lead to unexpected restrictions.

◆ **Political constraints.** Political constraints can block the transfer of funds either overtly or covertly. Overt blockage occurs when a currency becomes inconvertible or is subject to government exchange controls that prevent its transfer at reasonable exchange rates. Covert blockage occurs when dividends or other forms of fund remittances are severely limited, heavily taxed, or excessively delayed by the need for bureaucratic approval.

◆ **Tax constraints.** Tax constraints arise because of the complex and possibly contradictory tax structures of various national governments through whose jurisdictions funds might pass. A firm does not want funds in transit eroded by a sequence of nibbling tax collectors in every jurisdiction through which such funds might flow.

◆ **Transaction costs.** Foreign exchange transaction costs are incurred when one currency is exchanged for another. These costs, in the form of fees and/or the difference between bid and offer quotations, are revenue for the commercial banks and dealers that operate the foreign exchange market. Although usually a small percentage of the amount of money exchanged, such costs become significant for large or frequent transfers. Transaction costs are sufficiently large enough to warrant planning to avoid unnecessary back-and-forth transfers such as would occur if a subsidiary remitted a cash dividend to its parent at approximately the same time as the parent paid the subsidiary for goods purchased. Sending foreign exchange simultaneously in two directions is obviously a sheer waste of corporate resources, but it sometimes occurs when one part of a firm is not coordinated with another.

◆ **Liquidity needs.** Despite the overall advantage of worldwide cash handling, liquidity needs in each individual location must be satisfied and good local banking relationships maintained. The size of appropriate balances is in part a judgmental decision not easily measurable. Nevertheless, such needs constrain a pure optimization approach to worldwide cash positioning.

### Conduits for Moving Funds by Unbundling Them

Multinational firms often *unbundle* their transfer of funds into separate flows for specific purposes. Host countries are then more likely to perceive that a portion of what might otherwise be called *remittance of profits* constitutes an essential purchase of specific benefits that command worldwide values and benefit the host country. Unbundling allows a multinational firm to recover funds from subsidiaries without piquing host country sensitivities over large dividend drains. For example, Trident might transfer funds from its foreign subsidiaries to the parent, Trident Corporation, by any of the conduits shown in Exhibit 18.3.

The conduits are separable into those which are *before-tax* and *after-tax* in the host country. Although not always the focus of intraunit fund movement, tax goals frequently make this a critical distinction for many foreign subsidiary financial structures. An increase in the funds flow (charges) in any of the before-tax categories reduces the taxable profits of the foreign subsidiary if the host country tax authorities acknowledge the charge as a legitimate expense. The before-tax/after-tax distinction is also quite significant to a parent company attempting to repatriate funds in the most tax-efficient method if it is attempting to manage its own foreign tax credit/deficits between foreign units.
An item-by-item matching of remittance to input, such as royalties for intellectual property, and fees for patents and advice, is equitable to the host country and foreign investor alike. It allows each party to see the reason for each remittance and to judge its acceptance independently. If all investment inputs are unbundled, part of what might have been classified as residual profits may turn out to be tax-deductible expenses related to a specific purchased benefit. Unbundling also facilitates allocation of overhead from a parent’s international division, so-called shared services, to each operating subsidiary in accordance with a predetermined formula. Predetermination of the allocation method means a host country is less likely to view a given remittance as capricious and thus inappropriate. Finally, unbundling facilitates the entry of local capital into joint venture projects, because total remuneration to different owners can be in proportion to the value of the varied contributions of each, rather than only in proportion to the amount of monetary capital they have invested.

### International Dividend Remittances

Payment of dividends is the classical method by which firms transfer profit back to owners, be those owners individual shareholders or parent corporations. International dividend policy now incorporates tax considerations, political risk, and foreign exchange risk, as well as a return for business guidance and technology.

#### Tax Implications

Host-country tax laws influence the dividend decision. Countries such as Germany tax retained earnings at one rate while taxing distributed earnings at a lower rate. Most countries levy withholding taxes on dividends paid to foreign parent firms and investors. Again, most
(but not all) parent countries levy a tax on foreign dividends received, but allow a tax credit for foreign taxes already paid on that income stream. That said, dividends remain the most tax inefficient method for repatriating funds because they are distributed on an after-tax basis. This means that the parent company will frequently be faced with the generation of excess foreign tax credits on a dividend. Remittance of license or royalty fees is on a pre-tax basis in the foreign subsidiary; the only tax which is typically applied is that of withholding, a rate considerably below that of corporate income taxes.

**Political Risk**

Political risk may motivate parent firms to require foreign subsidiaries to remit all locally generated funds above that required to internally finance growth in sales (working capital requirements) and planned capital expansions (capex or capital expenditures). Such policies, however, are not universal.

One strategy employed by MNEs in response to potential government restrictions may be to maintain a constant dividend payout ratio so as to demonstrate that an established policy is being consistently carried out. This establishes a precedent for remittance of dividends and removes the perception of some host-country governments that dividend distributions are by managerial election. (Note that even the terminology, “declare a dividend,” implies managerial discretion.)

**Foreign Exchange Risk**

If a foreign exchange loss is anticipated, an MNE may speed up the transfer of funds out of the country via dividends. This “lead” is usually part of a larger strategy of moving from weak currencies to strong currencies, and can include speeding up intrafirm payments on accounts receivable and payable. However, decisions to accelerate dividend payments ahead of what might be normal must take into account interest rate differences and the negative impact on host country relations.

**Distributions and Cash Flows**

Dividends are a cash payment to owners equal to all or a portion of earnings of a prior period. To pay dividends, a subsidiary needs both past earnings and available cash. Subsidiaries sometimes have earnings without cash because earnings are measured at the time of a sale but cash is received later when the receivable is collected (a typical distinction between accounting profits and cash flow). Profits of rapidly growing subsidiaries are often tied up in ever-increasing receivables and inventory (working capital). Hence, rapidly growing foreign subsidiaries may lack the cash to remit a dividend equal to even a portion of earnings.

The reverse may also be true; firms may be receiving cash from the collection of old receivables even when profits are down because current sales have fallen off or current expenses have risen relative to current sales prices. Such firms might want to declare a dividend in order to remove a bountiful supply of cash from a country, but lack the earnings against which to charge such payments. For either of these reasons, a firm must look at both measured earnings and available cash before settling upon a cash dividend policy.

**Joint Venture Factors**

Existence of joint venture partners or local stockholders also influences dividend policy. Optimal positioning of funds internationally cannot dominate the valid claims of independent partners or local stockholders for dividends. The latter do not benefit from the worldwide success of the MNE parent, but only from the success of the particular joint venture in
which they own a share. Firms might hesitate to reduce dividends when earnings falter. They also might hesitate to increase dividends following a spurt in earnings because of possible adverse reaction to reducing dividends later should earnings decline. Many MNEs insist on 100% ownership of subsidiaries in order to avoid possible conflicts of interest with outside shareholders.

**Net Working Capital**

If Trident Brazil’s business continues to expand it will continually add to inventories and accounts payable (A/P) in order to fill increased sales in the form of accounts receivable (A/R). These three components make up net working capital (NWC). The combination is “net” as a result of the spontaneous funding capability of accounts payable; accounts payable provide part of the funding for increased levels of inventory and accounts receivable.

Net Working Capital (NWC) = (A/R + Inventory) − (A/P)

Because both A/R and inventory are components of current assets on the left-hand side of the balance sheet, as they grow they must be financed by additional liabilities of some form on the right-hand side of the balance sheet. A/P may provide a part of the funding. Exhibit 18.4 illustrates Trident Brazil’s net working capital. Note that we do not include cash or short-term debt as part of net working capital. Although they are part of current assets and current liabilities, respectively, they are the result of management discretion, and do not spontaneously change with operations. Their determinates are discussed later in this chapter.

In principle, Trident attempts to minimize its net working capital balance. A/R is reduced if collections are accelerated. Inventories held by the firm are reduced by carrying lower levels of both unfinished and finished goods, and by speeding the rate at which goods are manufactured—reducing so-called cycle-time. All of these measures must be balanced.

**EXHIBIT 18.4** Trident Brazil’s Net Working Capital Requirements

*Net working capital (NWC) is the net investment required of the firm to support ongoing sales. NWC components typically grow as the firm buys inputs, produces products, and sells finished goods.*

*Firm’s Balance Sheet*

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities and Net Worth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td></td>
</tr>
<tr>
<td>Accounts receivable (A/R)</td>
<td></td>
</tr>
<tr>
<td>Inventory</td>
<td></td>
</tr>
<tr>
<td>Current assets</td>
<td></td>
</tr>
<tr>
<td>Accounts payable (A/P)</td>
<td></td>
</tr>
<tr>
<td>Short-term debt</td>
<td></td>
</tr>
<tr>
<td>Current liabilities</td>
<td></td>
</tr>
</tbody>
</table>

NWC = (A/R + Inventory) − A/P

*Note: NWC is not the same as Current assets and Current liabilities.*
with their customer costs. Sales could be reduced if inventories are not on hand, or if credit sales are reduced. On the other side of the balance sheet, NWC can be reduced by stretching A/P out. Again, if not done carefully, this could potentially damage the company’s relationship with its key suppliers, thereby reducing reliability and supply-chain partnerships.

**A/P versus Short-Term Debt**

Exhibit 18.4 also depicts one of the key managerial decisions for any subsidiary: should A/P be paid off early; taking discounts if offered by suppliers. The alternative financing for NWC balances is short-term debt.

For example, payment terms in Brazil are quite long by global standards, often extending 60 to 90 days. Paraña Electronics is one of Trident Brazil’s key suppliers. It delivers a shipment of electronic components and invoices Trident Brazil R$180,000. Paraña Electronics offers credit terms of 5/10 net 60. This means that the entire amount of the A/P, R$180,000, is due in 60 days. Alternatively, if Trident Brazil wishes to pay within the first 10 days, a 5% discount is given:

\[
\text{R$180,000} \times (1 - .05) = \text{R$171,000}
\]

Trident Brazil’s financial manager, Maria Gonzalez, must decide which is the lower cost method of financing her NWC. Short-term debt in Brazilian real, because of the relatively higher inflationary conditions common in Brazil, costs 24% per annum.

What is the annual cost of the discount offered by Paraña Electronics? Trident Brazil is effectively paid 5% for giving up 50 days of financing (60 days less the 10-day period for discounts). Assuming a 365-day count for interest calculation,

\[
\frac{365 \text{ days}}{50 \text{ days}} = 7.30
\]

To calculate the effective annual interest cost of supplier financing, the 5% discount for 50 days must be compounded 7.30 times, yielding a *cost of carry* provided by Paraña Electronics of

\[
(1 + .05)^{7.3} = 1.428, \text{ or } 42.8\% \text{ per annum}
\]

Paraña Electronics is therefore charging Trident Brazil 42.8% per annum for financing. Alternatively, Trident Brazil could borrow real from local banks in São Paulo for 24% per annum, use the funds to pay Paraña Electronics early and take the discounts offered. The latter is the obvious choice in this case.

The choice between taking supplier-provided financing and short-term debt is not always purely a matter of comparing interest costs. In many countries, the foreign subsidiaries of foreign MNEs have limited access to local currency debt. In other cases, the subsidiary may be offered funds from the parent company at competitive rates. We will return to this topic, **internal banking**, in the last section of this chapter, *Financing Working Capital*.

**Days Working Capital**

A common method of benchmarking working capital management practices is to calculate the NWC of the firm on a “days sales” basis. If the value of A/R, inventories, and A/P on the balance sheet are divided by the annual daily sales (annual sales/365 days), the firm’s NWC can be summarized in the number of days of sales NWC constitutes. Exhibit 18.5 provides the results of a survey by CFO Magazine in both the United States and Europe for the technology hardware and equipment industry segment. We must use care in viewing the survey results. Because the days sales values are for the consolidated companies, not specific country-level subsidiaries, the averages could reflect very different working capital structures for individual subsidiaries of the firms listed.
There are some clear differences between the U.S. and European averages, as well as between individual firms. The days working capital average for the selected U.S. firms of 29 days is less than half the 75 days for the European sample. A closer look at the subcategories indicates a radically sparse attitude toward inventory among the U.S. firms, averaging 19 days sales. Days sales held in accounts receivable at 53 days on average is nearly 20 days less than the European average of 70. Payables are essentially identical between the two groups. Clearly, European-based technology hardware firms are carrying a significantly higher level of working capital in their financial structures to support the same level of sales compared to that for comparable U.S.-based firms.

Among individual firms, Dell Computer Corporation lives up to its popular billing as one of the most aggressive working capital managers across all industries. Dell’s net working capital level of a negative two days indicates exactly what it says—a level of A/P which surpasses the sum of receivables and inventory. Even with that accomplishment, its inventory days of six is still three times that of Apple Computer’s two days in inventory.

Intra-firm Working Capital
The MNE itself poses some unique challenges in the management of working capital. Many multinationals manufacture goods in a few specific countries and then ship the intermediate products to other facilities globally for completion and distribution. The payables, receivables and inventory levels of the various units are a combination of intrafirm and interfirm. The varying business practices observed globally regarding payment terms—both days and discounts—create severe mismatches in some cases.
For example, Exhibit 18.6 illustrates the challenges in working capital management faced by Trident Brazil. Because Trident Brazil purchases inputs from Trident U.S., and then uses additional local material input to finish the products for local distribution, it must manage two different sets of payables. Trident U.S. sells intra-firm on common U.S. payment terms, net 30 days. Local suppliers in Brazil, however, use payment terms closer to Brazilian norms of 60 days net (although this is in many cases still quite short for Brazilian practices that have been known to extend to as long as 180 days). Similarly, since the customers of Trident Brazil are Brazilian, they expect the same common payment terms of 60 days. Trident Brazil is then “squeezed,” having to pay Trident U.S. much faster than it pays other local suppliers and long before it receives cash settlement from its customers.

In addition to Trident’s need to determine intrafirm payment practices that do not put undue burdens on their foreign subsidiaries, the question of currency of invoice will also be extremely important. If Trident Brazil sells only domestically, it does not have natural inflows of U.S. dollars or other hard currencies. It earns only Brazilian real. If Trident U.S. then invoices it for inputs in U.S. dollars, Trident Brazil will be constantly short dollars and will incur continuing currency management costs. Trident U.S. should invoice in Brazilian real and manage the currency exposure centrally (possibly through a reinvoicing center as discussed in Chapter 8).

Managing Receivables
A firm’s operating cash inflow is derived primarily from collecting its accounts receivable. Multinational accounts receivable are created by two separate types of transactions: sales to related subsidiaries and sales to independent or unrelated buyers.

EXHIBIT 18.6 Trident’s Multinational Working Capital Sequence

Cash inflows to Trident Brazil arise from local market sales. These cash flows are used to repay both intrafirm payables (to Trident U.S.) and local suppliers.

Trident Brazil Balance Sheet

<table>
<thead>
<tr>
<th>60 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/R</td>
</tr>
<tr>
<td>inventory</td>
</tr>
</tbody>
</table>

Trident U.S. Balance Sheet

<table>
<thead>
<tr>
<th>30 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/R</td>
</tr>
<tr>
<td>A/P</td>
</tr>
</tbody>
</table>

Intrafirm: 30 days

Local-sourcing: 60 days

Brazilian Business Practices
Payment terms in Brazil are longer than those typical of North America. Trident Brazil must offer 60-day terms to local customers to be competitive with other firms in the local market.

United States Business Practices
Payment terms used by Trident U.S. are typical of North America, 30 days. Trident U.S. local customers will expect to be paid in 30 days. Trident U.S. may consider extending longer terms to Brazil to reduce the squeeze.

Result: Trident Brazil is squeezed in terms of cash flow. It receives inflows in 60 days but must pay Trident U.S. in 30 days.
Independent Customers. Management of accounts receivable from independent customers involves two types of decisions: In what currency should the transaction be denominated, and what should be the terms of payment? Domestic sales are almost always denominated in the local currency. At issue is whether export sales should be denominated in the currency of the exporter, the currency of the buyer, or a third-country currency. Competition or custom will often dictate the answer, but if negotiating room exists the seller prefers to price and to invoice in the strongest currency. However, an informed buyer prefers to pay in the weakest currency.

Payment Terms. Terms of payment are another bargaining factor. Considered by themselves, receivables from sales in weak currencies should be collected as soon as possible to minimize loss of exchange value between sales date and collection date. Accounts receivable resulting from sales in hard currencies may be allowed to remain outstanding longer. In fact, if the seller is expecting an imminent devaluation of its home currency, it might want to encourage slow payment of its hard currency receivables, especially if the home government requires immediate exchange of foreign currency receipts into the home currency. An alternative, if legal, would be for the seller to accept the proceeds abroad and keep them on deposit abroad rather than return them to the home country.

In inflationary economies, the demand for credit usually exceeds the supply. Often, however, a large business (be it multinational or a large local concern) has better access to the limited, cheaper credit that is available locally than do smaller domestic businesses, such as local distributors, retail merchants, or smaller manufacturers.

Self-Liquidating Bills. Some banking systems, often for reasons of tradition, have a predilection toward self-liquidating, discountable bills. In many European countries, it is easier to borrow from a bank on the security of bills (receivables in negotiable form) generated from sales than on the security of physical inventory. Napoleon is alleged to have had a philosophy that no good French merchant should be required to wait for funds if good merchandise has been sold to good people, provided a document exists showing sales of the items. The document must have the signature of the buyer and the endorsement of the seller and the rediscounting bank. Thus, in France, it is often possible to reduce net investment in receivables to zero by selling entirely on trade acceptances that can be discounted at the bank.

The European use of discountable bills has a very real rationale behind it. According to European commercial law, based on the “Code Napoleon,” the claim certified by the signature of the buyer on the bill is separated from the claim based on the underlying transaction. For example, a bill is easily negotiable because objections about the quality of the merchandise by the buyer do not affect the claim of the bill holder. In addition, defaulted bills can be collected through a particularly speedy judicial process that is much faster than the collection of normal receivables.

Other Terms. In many countries, government bodies facilitate inventory financing in the guise of receivable financing by extending export credit or by guaranteeing export credit from banks at advantageous interest rates. When the term of the special export financing can be extended to match the payment of the foreign purchaser, the foreign purchaser is in effect able to finance its inventory through the courtesy of the exporter’s government.

In some environments, credit terms extended by manufacturers to retailers are of such long maturities as to constitute “purchase” of the retailer, such “purchase” being necessary to build an operational distribution system between manufacturer and ultimate customer. In Japan, for example, customer payment terms of 120 days are fairly common, and a manufacturer’s sales effort is not competitive unless sufficient financial aid is provided to retailers to make it possible or beneficial for them to buy the manufacturer’s product. Financial aid is
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reported to take the form of outright purchase of the retailer’s capital stock, working capital loans, equipment purchase, subsidy or loan, and consideration of payment terms. Such manufacturer-supplied financing is a normal way of doing business in Japan—and contributes to the lack of domestic competition prevalent in that country.

Inventory Management
Operations in inflationary, devaluation-prone economies sometimes force management to modify its normal approach to inventory management. In some cases, management may choose to maintain inventory and reorder levels far in excess of what would be called for in an economic order quantity model.

Under conditions where local currency devaluation is likely, management must decide whether to build up inventory of imported items in anticipation of the expected devaluation. After the devaluation, imported inventory will cost more in local currency terms. One trade-off is a higher holding cost because of the bloated level of inventory and high local interest rates that normally reflect the expected devaluation. A less obvious trade-off is the possibility that local government will enforce a price freeze following devaluation. This freeze would prevent the imported inventory from being sold for an appropriate markup above its now-higher replacement value. Still worse, the devaluation may not occur as anticipated, leaving management holding an excessive level of inventory until it can be worked down. Disposing of excessive inventory will be particularly painful if competitors have followed the same strategy of speculating on imported inventory.

Free-Trade Zones and Free Industrial Zones
A free-trade zone combines the old idea of duty-free ports with legislation that reduces or eliminates customs duties to retailers or manufacturers who structure their operations to benefit from the technique. Income taxes may also be reduced for operations in a free-trade zone. The old duty-free ports were typically in the dock area of major seaports, where goods were held, duty free, until the owner was ready to deliver them within the country. Modern free-trade zones, by comparison, are often located away from a port area. For example, the Italian firm of Olivetti has such a zone in Harrisburg, Pennsylvania.

Free-trade zones function in several ways. As mentioned, they may be a place to off-load merchandise for subsequent sale within the country where the zone is located. An example of such a zone would be a storage area for imported Toyota automobiles in the Port of Los Angeles. A large quantity of differentiated models can be held until sold by a dealer, at which time the cars are “imported” into the United States from the free-trade zone. The advantage of such an arrangement is that a variety of models can be kept near the point of sale for quick delivery, but import duties need be paid only when the merchandise passes from the zone into California.

A second type of zone involves the assembly of components for subsequent sale within the country where the zone is located. An example would be the Mercedes assembly line in Alabama. Components are imported into the free-trade zone where assembly work is finished. The import duty is paid only when the finished car is removed from the zone. Furthermore, the duty is lower than it would be for a finished car because the charges on components are less than the charge on a finished vehicle.

A third type of zone is a full-fledged manufacturing center with a major portion of its output re-exported out of the country. Two examples are Penang, Malaysia, and Madagascar, where such zones are officially designated “Free Industrial Zones.” In Penang, companies as diverse as Dell Computers, National Semiconductor, Sony, Bosch, and Trane Air Conditioning manufacture final products. A major portion of production is re-exported, avoiding
Malaysian customs altogether but providing jobs for Malaysian workers and engineers. The portion of production sold in Malaysia is assessed duties only on the components originally imported. However, the variety of firms permits one to buy from another; Dell buys Pentium chips from Intel and disk drives from Seagate, both of which are located less than a mile from the Dell plant.

**International Cash Management**

*International cash management* is the set of activities determining the levels of cash balances held throughout the MNE, and the facilitation of its movement cross border. These activities are typically handled by the international treasury of the MNE.

**Motives for Holding Cash**

The level of cash maintained by an individual subsidiary is determined independently of the working capital management decisions discussed previously. Cash balances, including marketable securities, are held partly to enable normal day-to-day cash disbursements and partly to protect against unanticipated variations from budgeted cash flows. These two motives are called the *transaction motive* and the *precautionary motive*.

Cash disbursed for operations is replenished from two sources: 1) internal working capital turnover and 2) external sourcing, traditionally short-term borrowing. Short-term borrowing can also be “negative” as when excess cash is used to repay outstanding short-term loans. In general, individual subsidiaries of MNEs typically maintain only minimal cash balances necessary to meet the transaction purposes. Efficient cash management aims to reduce cash tied up unnecessarily in the system, without diminishing profit or increasing risk, so as to increase the rate of return on invested assets. All firms, both domestic and multinational, engage in some form of the following fundamental steps.

**International Cash Settlements and Processing**

Multinational business increases the complexity of making payments and settling cash flows between related and unrelated firms. Over time, a number of techniques and services have evolved which simplify and reduce the costs of making these cross-border payments. We focus here on four such techniques: *wire transfers*, *cash pooling*, *payment netting*, and *electronic fund transfers*.

**Wire Transfers**

Although there are a variety of computer-based networks used for effecting international transactions and settlements, two have come to dominate the international financial sector, *CHIPS* and *SWIFT*. The primary distinction among systems is whether they are for secure communications alone, or for actual transfer and settlement.

**CHIPS.** CHIPS, the Clearing House Interbank Payment System, is a computerized network which connects major banks globally. CHIPS is owned and operated by its member banks, making it the single largest privately operated and final payments system in the world. Developed in 1970 when international currency transactions were dominated by the U.S. dollar, CHIPS has continued to dominate the transfer and settlement of U.S. dollar transactions for more than 34 years.

CHIPS is actually a subsidiary of the New York Clearing House, the oldest and largest payments processor of bank transactions. The New York Clearing House was first established in 1853 to provide a central place—a clearinghouse—where all banks in New York City could daily settle transactions, such as the many personal checks written by private individuals and
corporations, among themselves. CHIPS itself is simply a computer-based evolutionary result of this need. Because banks are still the primary financial service provider for MNEs, businesses transferring payments both interfirm and intrafirm globally use banks for effecting the payments and the banks in turn utilize CHIPS.

**Swift.** The Society for Worldwide Interbank Financial Telecommunications, SWIFT, also facilitates the wire transfer settlement process globally. Whereas CHIPS actually clears financial transactions, SWIFT is purely a communications system. By providing a secure and standardized transfer process, SWIFT has greatly reduced the errors and associated costs of effecting international cash transfers.

In recent years, SWIFT has expanded its messaging services beyond banks to broker-dealers and investment managers. In the mid-1990s, its services gained wider breadth as SWIFT expanded market infrastructure to payments in treasury, derivatives, and securities and trade services. It is now in the forefront of the evolution of Internet-based products and services for e-payments, expanding beyond banks to nonfinancial sector customers conducting business-to-business electronic commerce.

### Cash Pooling and Centralized Depositories
Any business with widely dispersed operating subsidiaries can gain operational benefits by centralizing cash management. Internationally, the procedure calls for each subsidiary to hold minimum cash for its own transactions and no cash for precautionary purposes. However, the central pool has authority to override this general rule. All excess funds are remitted to a central cash depository, where a single authority invests the funds in such currencies and money market instruments as best serve the worldwide firm. A central depository provides an MNE with at least four advantages:

1. Obtaining information
2. Holding precautionary cash balances
3. Reducing interest rate costs
4. Locating cost in desirable financial centers

**Information Advantage.** A central depository’s size gives it an advantage in obtaining information. It should be located in one of the world’s major financial centers so information needed for opinions about the relative strengths and weaknesses of various currencies can easily be obtained. Rate of return and risk information on alternative investments in each currency and facilities for executing orders must also be available. The information logic of centralization is that an office that specializes and operates with larger sums of money can get better information from banks, brokers, and other financial institutions, as well as better service in executing orders.

**Precautionary Balance Advantage.** A second reason for holding all precautionary balances in a central pool is that the total pool, if centralized, can be reduced in size without any loss in the level of protection. Trident U.S., for example, has subsidiaries in Europe, Brazil, and China. Assume each of these subsidiaries maintains its own precautionary cash balance equal to its expected cash needs plus a safety margin of three standard deviations of historical variability of actual cash demands. Cash needs are assumed to be normally distributed in each country, and the needs are independent from one country to another. Three standard deviations means there exists a 99.87% chance that actual cash needs will be met; that is, only a 0.13% chance that any European subsidiary will run out of cash.

Cash needs of the individual subsidiaries, and the total precautionary cash balances held, are shown in Exhibit 18.7. Total precautionary cash balances held by Trident Europe, Brazil,
What would happen if the three Trident subsidiaries maintained all precautionary balances in a single account with Trident U.S.? Because variances are additive when probability distributions are independent (see footnote b to Exhibit 18.7), cash needed would drop from $46,000,000 to $39,224,972, calculated as follows:

\[
\text{Centralized cash deposit} = \text{Sum of expected cash needs} + \text{Three standard deviations of expected sum}
\]

<table>
<thead>
<tr>
<th>Subsidiary</th>
<th>Expected cash need (A)</th>
<th>One standard deviation (B)</th>
<th>Cash Balance budgeted for adequate protection(^a) (A + 3B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trident Europe</td>
<td>$10,000,000</td>
<td>$1,000,000</td>
<td>$13,000,000</td>
</tr>
<tr>
<td>Trident Brazil</td>
<td>6,000,000</td>
<td>2,000,000</td>
<td>12,000,000</td>
</tr>
<tr>
<td>Trident China</td>
<td>12,000,000</td>
<td>3,000,000</td>
<td>21,000,000</td>
</tr>
<tr>
<td>Total</td>
<td>$28,000,000</td>
<td>$6,000,000</td>
<td>$39,224,972</td>
</tr>
</tbody>
</table>

\(^a\)Adequate protection is defined as the expected cash balance plus three standard deviations, assuming that the cash flows of all three individual affiliates are normally distributed.

\(^b\)The standard deviation of the expected cash balance of the centralized depository is calculated as follows:

\[
\text{Standard deviation} = \sqrt{(1,000,000)^2 + (2,000,000)^2 + (3,000,000)^2} = 3,741,657
\]

A budgeted cash balance three standard deviations above the aggregate expected cash need requires only $11,224,972 in potentially idle cash, as opposed to the previous cash balance of $18,000,000. Trident saves $6,755,028 in cash balances without reducing its safety.

**Interest Rate Advantage.** A third advantage of centralized cash management is that one subsidiary will not borrow at high rates at the same time that another holds surplus funds idle or invests them at low rates. Managers of the central pool can locate the least expensive locations to borrow and the most advantageous returns to be earned on excess funds. When additional cash is needed, the central pool manager determines the location of such borrowing. A local subsidiary manager can avoid borrowing at a rate above the minimum available to the pool manager. If the firm has a worldwide cash surplus, the central pool manager can evaluate comparative rates of return in various markets, transaction costs, exchange risks, and tax effects.
**Location.** Central money pools are usually maintained in major money centers such as London, New York, Zurich, Singapore, and Tokyo. Additional popular locations for money pools include Liechtenstein, Luxembourg, the Bahamas, and Bermuda. Although these countries do not have strong diversified economies, they offer most of the other prerequisites for a corporate financial center: freely convertible currency, political and economic stability, access to international communications, and clearly defined legal procedures. Their additional advantage as a so-called tax haven is desirable.

The need for a centralized depository system means that multinational banks have an advantage over single-country banks in designing and offering competitive services. However, single country banks can be incorporated into the system if the desired results can still be achieved, for the essence of the operation is centralized information and decisions. MNEs can place actual funds in as many banks as they desire.

**Multilateral Netting**

*Multilateral netting* is defined as the process that cancels via offset, all, or part, of the debt owed by one entity to another related entity. Multilateral netting is useful primarily when a large number of separate foreign exchange transactions occur between subsidiaries in the normal course of business. Netting reduces the settlement cost of what would otherwise be a large number of crossing spot transactions.

Multilateral netting is an extension of bilateral netting. Assume Trident Brazil owes Trident China $5,000,000 and Trident China simultaneously owes Trident Brazil $3,000,000, a bilateral settlement calls for a single payment of $2,000,000 from Brazil to China and the cancellation, via offset, of the remainder of the debt.

A multilateral system is an expanded version of this simple bilateral concept. Assume that payments are due between Trident’s operations at the end of each month. Each obligation reflects the accumulated transactions of the prior month. These obligations for a particular month might be as shown in Exhibit 18.8.

**EXHIBIT 18.8** Multilateral Matrix Before Netting (thousands of U.S. dollars)

Prior to netting, the four sister Trident companies of Trident have numerous intrafirm payments between them. Each payment results in transfer charges.
Without netting, Trident Brazil makes three separate payments and receives three separate receipts at the end of the month. If Trident Brazil paid its intracompany obligations daily, or even weekly, rather than accumulating a balance to settle at the end of the month, it would generate a multitude of costly small bank transactions. The daily totals would add up to the monthly accumulated balances shown in the exhibit.

In order to reduce bank transaction costs, such as the spread between foreign exchange bid and ask quotations and transfer fees, some MNEs such as Trident establish in-house multilateral netting centers. Other firms contract with banks to manage their netting system. Assume that Trident’s net intracompany obligations for a given month can be summarized as in Exhibit 18.9.

Note that payment obligations and expected receipts both add up to $43,000,000 because one subsidiary’s debts are another’s receivable. If the cost of foreign exchange transactions and transfer fees were 0.5%, the total cost of settlement would be $205,000. Using information from the netting matrix in Exhibit 18.9, the netting center at Trident U.S. can order three payments to settle the entire set of obligations. Trident U.S. will itself remit $3,000,000 to China, and Europe will be instructed to send $1,000,000 each to Brazil and China. Total foreign exchange transfers are reduced to $5,000,000, and transaction costs at 0.5% are reduced to $25,000. This is shown in Exhibit 18.10.

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**EXHIBIT 18.9** Calculation of Trident Intrasubsidiary Net Obligations (thousands of U.S. dollars)

<table>
<thead>
<tr>
<th>Receiving Subsidiary</th>
<th>Paying Subsidiary</th>
<th>United States</th>
<th>Brazil</th>
<th>Europe</th>
<th>China</th>
<th>Total Receipts</th>
<th>Net Receipts (payments)</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>—</td>
<td>$4,000</td>
<td>$3,000</td>
<td>$5,000</td>
<td>$12,000</td>
<td>($3,000)</td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>5,000</td>
<td>—</td>
<td>3,000</td>
<td>1,000</td>
<td>9,000</td>
<td>$1,000</td>
<td></td>
</tr>
<tr>
<td>Europe</td>
<td>4,000</td>
<td>2,000</td>
<td>—</td>
<td>3,000</td>
<td>9,000</td>
<td>($2,000)</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>6,000</td>
<td>2,000</td>
<td>5,000</td>
<td>—</td>
<td>13,000</td>
<td>$4,000</td>
<td></td>
</tr>
<tr>
<td><strong>Total Payments</strong></td>
<td><strong>$15,000</strong></td>
<td><strong>$8,000</strong></td>
<td><strong>$11,000</strong></td>
<td><strong>$9,000</strong></td>
<td><strong>$43,000</strong></td>
<td>—</td>
<td></td>
</tr>
</tbody>
</table>

Without netting, Trident Brazil makes three separate payments and receives three separate receipts at the end of the month. If Trident Brazil paid its intracompany obligations daily, or even weekly, rather than accumulating a balance to settle at the end of the month, it would generate a multitude of costly small bank transactions. The daily totals would add up to the monthly accumulated balances shown in the exhibit.

In order to reduce bank transaction costs, such as the spread between foreign exchange bid and ask quotations and transfer fees, some MNEs such as Trident establish in-house multilateral netting centers. Other firms contract with banks to manage their netting system. Assume that Trident’s net intracompany obligations for a given month can be summarized as in Exhibit 18.9.

Note that payment obligations and expected receipts both add up to $43,000,000 because one subsidiary’s debts are another’s receivable. If the cost of foreign exchange transactions and transfer fees were 0.5%, the total cost of settlement would be $205,000. Using information from the netting matrix in Exhibit 18.9, the netting center at Trident U.S. can order three payments to settle the entire set of obligations. Trident U.S. will itself remit $3,000,000 to China, and Europe will be instructed to send $1,000,000 each to Brazil and China. Total foreign exchange transfers are reduced to $5,000,000, and transaction costs at 0.5% are reduced to $25,000. This is shown in Exhibit 18.10.

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**EXHIBIT 18.10** Multilateral Matrix After Netting (thousands of U.S. dollars)

After netting, the four sister companies of Trident have only three net payments to make among themselves to settle all intrafirm obligations.
Some countries limit or prohibit netting, while others permit netting on a “gross payment” basis only. For a single settlement period all payments may be combined into a single payment, and all receipts will be received as a single transfer. However, these two may not be netted. Thus, two large payments must pass through the local banking system.

Financing Working Capital

The MNE enjoys a much greater choice of banking sources to fund its working capital needs than do domestic firms. Banking sources available to MNEs include in-house banks funded by unrepatriated capital, international banks, and local banks where subsidiaries are located. In-house banks and the various types of external commercial banking offices are described in the remainder of this chapter.

In-House Banks

Some MNEs have found that their financial resources and needs are either too large or too sophisticated for the financial services available in many locations where they operate. One solution to this has been the establishment of an in-house or internal bank within the firm. Such an in-house bank is not a separate corporation; rather, it is a set of functions performed by the existing treasury department. Acting as an independent entity, the central treasury of the firm transacts with the various business units of the firm on an arm’s-length basis. The purpose of the in-house bank is to provide banking-like services to the various units of the firm. The in-house bank may be able to provide services not available in many countries, and do so at lower cost when they are available. In addition to traditional banking activities, the in-house bank may be able to offer services to units of the firm which aid in the management of ongoing transaction exposures. Lastly, because it is “in-house,” credit analysis is not a part of the decision making.

For example, the in-house bank of Trident Corporation could work with Trident Europe and Trident Brazil. Trident Brazil sells all its receivables to the in-house bank as they arise, reducing some of its domestic working capital needs. Additional working capital needs are supplied by the in-house bank directly to Trident Brazil. Because the in-house bank is part of the same company, interest rates it charges may be significantly lower than what Trident Brazil could obtain on its own. The source of funds for the in-house bank may arise from the deposits of excess cash balances from Trident Europe. If the in-house bank can pay Trident Europe a higher deposit rate than it could obtain on its own, and if the in-house bank can lend these funds to Trident Brazil at an interest rate lower than it could obtain on its own in Brazil, then both operating units benefit. Assuming the loan rate is greater than the deposit rate, the in-house bank profits by the margin between the two, but this margin or spread must be smaller than would be available from a commercial bank.

How can the in-house bank operate with a smaller spread than a regular commercial bank? First, its costs are lower because it does not have to conform to the stringent capital requirements imposed on commercial banks worldwide. Second, in-house banks do not have the overhead costs of supporting large dealing rooms, branch networks, retail “store fronts,” and other services required for commercial bank competitiveness. Third, they need not assess the creditworthiness of the corporate units with which they deal, since the units are all in the same family. Nor need they provide for credit losses.

In addition to providing financing benefits, in-house banks allow for more effective currency risk management. In the case of Trident Brazil, the sale of foreign currency receivables to the in-house bank shifts transaction exposure to the bank. The in-house bank is better equipped to deal with currency exposures and has a greater volume of international cash flows allowing Trident Corporation overall to gain from more effective use of netting and
matching. This frees the units of the firm from struggling to manage transaction exposures and allows them to focus on their primary business activities.

**Commercial Banking Offices**

MNEs depend on their commercial banks not only to handle most of their trade financing needs, such as letters of credit, but also to provide advice on government support, country risk assessment, introductions to foreign firms and banks, and general financing availability. MNEs interface with their banks through a variety of different types of banking offices, many of which perform specialized functions. Therefore, it is important for financial managers to understand which bank offices provide which kinds of activities. The main points of bank contact are with correspondent banks, representative offices, branch banks, and subsidiaries. In the United States, a more specialized banking facility is available: the Edge Act corporation, defined in the following section.

**Correspondent Banks.** Most major banks of the world maintain correspondent banking relationships with local banks in each of the important foreign cities of the world. The two-way link between banks is essentially one of “correspondence,” via fax, cable, and mail, and a mutual deposit relationship. For example, a U.S. bank may have a correspondent bank in Kuala Lumpur, Malaysia, and the U.S. bank will in turn be the correspondent bank for the Malaysian bank. Each will maintain a deposit in the other in local currency.

Correspondent services include accepting drafts, honoring letters of credit, and furnishing credit information. Services are centered around collecting or paying foreign funds, often because of import or export transactions. However, a visiting business person can use the home bank’s introduction to meet local bankers. Under a correspondent banking relationship, neither of the correspondent banks maintains its own personnel in the other country. Direct contact between the banks is usually limited to periodic visits between members of the banks’ management.

For the business person, the main advantage of banking at home with a bank having a large number of foreign correspondent relationships is the ability to handle financial matters in a large number of foreign countries through local bankers whose knowledge of local customs should be extensive. The disadvantages are the lack of ability to deposit in, borrow from, or disburse from a branch of one’s own home bank. There is a possibility that correspondents will put a lower priority on serving the foreign banks’ customer than on serving their own permanent customers.

**Representative Offices.** A bank establishes a representative office in a foreign country primarily to help parent bank clients when they are doing business in that country or in neighboring countries. It also functions as a geographically convenient location from which to visit correspondent banks in its region rather than sending bankers from the parent bank at greater financial and physical cost. A representative office is not a “banking office.” It cannot accept deposits, make loans, commit the parent bank to a loan, or deal in drafts, letters of credit, or the Eurocurrency market. Indeed, a tourist cannot even cash a travelers check from the parent bank in the representative office.

If the parent bank eventually decides to open a local general banking office, the existence of a representative office for some prior period usually provides a valuable base of contacts and expertise to facilitate the change. However, representative offices are not necessarily a prelude to a general banking office, nor need an eventual general banking office be the major reason for opening a representative office.

**Branch Banks.** A foreign branch bank is a legal and operational part of the parent bank, with the full resources of that parent behind the local office. A branch bank does not have its own
corporate charter, its own board of directors, or any shares of stock outstanding. Although for managerial and regulatory purposes it will maintain its own set of books, its assets and liabilities are in fact those of the parent bank. However, branch deposits are not subject to reserve requirements or FDIC insurance, in the case of U.S. banks, unless the deposits are reloaned to the U.S. parent bank.

Branch banks are subject to two sets of banking regulations. As part of the parent, they are subject to home-country regulations. However, they are also subject to regulations of the host country, which may provide any of a variety of restrictions on their operations.

The major advantage to a business of using a branch bank is that the branch will conduct a full range of banking services under the name and legal obligation of the parent. A deposit in a branch is a legal obligation of the parent. Services to customers are based on the worldwide value of the client relationship rather than just on the relationship to the local office. Legal loan limits are a function of the size of the parent, not of the branch.

From the point of view of a banker, the profits of a foreign branch are subject to immediate taxation at home, and losses of a foreign branch are deductible against taxable income at home. A new office expected to have losses in its early years creates a tax advantage if it is initially organized as a branch, even if eventually the intent is to change it to a separately incorporated subsidiary. From an organizational point of view, a foreign branch is usually simpler to create and staff than is a separately incorporated subsidiary.

The major disadvantage of a branch bank is one that accrues to the bank rather than to its customers. The parent bank (not just the branch) may be sued at the local level for debts or other activities of the branch.

**Banking Subsidiaries.** A subsidiary bank is a separately incorporated bank, owned entirely or in major part by a foreign parent, that conducts a general banking business. As a separate corporation, the banking subsidiary must comply with all the laws of the host country. Its lending limit is based on its own equity capital rather than that of the parent bank. This limits its ability to service large borrowers, but local incorporation also limits the liability of the parent bank to its equity investment in the subsidiary.

A foreign banking subsidiary often appears as a local bank in the eyes of potential customers in host countries and is thus often able to attract additional local deposits. This especially is true if the bank is independent prior to being purchased by the foreign parent. Management may well be local, giving the bank greater access to the local business community. A foreign-owned bank subsidiary is more likely to be involved in both domestic and international business than is a foreign branch, which is more likely to appeal to the foreign business community but may well encounter difficulty in attracting banking business from local firms.

**Edge Act Corporations.** Edge Act corporations are subsidiaries of U.S. banks, incorporated in the United States under Section 25 of the Federal Reserve Act as amended, to engage in international banking and financing operations. Not only may such subsidiaries engage in general international banking, but also they may finance commercial, industrial, or financial projects in foreign countries through long-term loans or equity participation. Such participation, however, is subject to the day-to-day practices and policies of the Federal Reserve System.

Edge Act corporations generally engage in two types of activities: direct international banking, including acting as a holding company for the stock of one or more foreign banking subsidiaries, and financing development activities not closely related to traditional banking operations.
Summary of Learning Objectives

**Demonstrate the operation of working capital management in a multinational enterprise and its various foreign subsidiaries.**

- The *operating cycle* of a business generates funding needs, cash inflows and outflows—the cash conversion cycle—and potentially foreign exchange rate and credit risks.
- The funding needs generated by the *operating cycle* of the firm constitute *working capital*. The operating cycle of a business extends along a time line from the first point at which a customer requests a price quotation to the final point in time at which payment is received from the customer for goods delivered.
- The *cash conversion cycle*, a subcomponent of the operating cycle, is that period of time extending between cash outflows for purchased inputs and materials and when cash inflow is received from cash settlement.

**Analyze how multinational companies reposition their profits, cash flows, and capital within their multinational structures to maximize profitability, minimize global tax liability, and optimize their use of capital.**

- The MNE is constantly striving to create shareholder value by maximizing the after-tax profitability of the firm. One dimension of this task is to *reposition the profits* of the firm, as legally and practically as possible, in low-tax environments.
- Repositioning profits will allow the firm to increase the after-tax profits of the firm by lowering the tax liabilities of the firm with the same amount of sales.
- In addition to tax management, repositioning is useful when an MNE wishes to move cash flows or funds in general from where they are not needed to where they may redeployed in more value-creating activities, or to minimize exposure to a potential currency collapse or potential political or economic crisis.

**Describe the role that royalties and license fees play in the repositioning strategies employed by MNEs.**

- *Royalty fees* are compensation for the use of intellectual property belonging to some other party. Royalties fees are usually a stated percentage of sales revenue (price times volume) so that the owner is compensated in proportion to the volume of sales.
- *License fees* are remuneration paid to the owners of technology, patents, trade names, and copyrighted material (including moving pictures, video tapes, compact disks, software, and books).
- License fees are usually based on a percentage of the value of the product or on the volume of production.

As such they are calculated independently of the amount of sales.

**Learn how international dividend remittances are determined.**

- International dividend policy now incorporates tax considerations, political risk, and foreign exchange risk, as well as a return for business guidance and technology.
- Dividends are the most tax inefficient method for repatriating funds because they are distributed on an after-tax basis. This means that the parent company will frequently be faced with the generation of excess foreign tax credits on a dividend.
- Remittance of license or royalty fees is on a pre-tax basis in the foreign subsidiary, the only tax which is typically applied is that of withholding, a rate considerably below that of corporate income taxes.

**Apply management guidelines to minimize the costs of funding working capital requirements.**

- In principle, firms attempt to minimize their net working capital balance. A/R is reduced if collections are accelerated. Inventories held by the firm are reduced by carrying lower levels of both unfinished and finished goods, and by speeding the rate at which goods are manufactured, reducing so-called cycle-time.
- All firms must determine whether A/P be paid off early, taking discounts if offered by suppliers, and finance these payments with short-term debt. Note that short-term debt is not included within NWC itself because it does not spontaneously increase with operations, but must be acquired as part of management’s financing choices.

**Identify devices used to manage cross-border cash settlement processes.**

- Over time a number of techniques and services have evolved which simplify and reduce the costs of making cross-border payments. This includes wire transfers, cash pooling, payment netting, and electronic fund transfers.

**Describe the different internal and external banking and financial services which may be used by MNEs in the conduct of global business.**

- MNEs can finance working capital needs through in-house banks, international banks, and local banks where subsidiaries are located.
- International banks finance MNEs and service these accounts through representative offices, correspondent banking relationships, branch banks, banking subsidiaries, affiliates, and Edge Act corporations (U.S. only).
MINI-CASE

Honeywell and Pakistan International Airways

The Space and Avionics Control Group (SAC) of Honeywell, Incorporated (U.S.) was quite frustrated in June, 1997. The cockpit retrofit proposal with Pakistan International Airlines had been under negotiations for seven months, and over the past weekend a new request had been thrown in—to accept payment in Pakistan rupee. This was against corporate policy at Honeywell, and if an exception was not made, the deal—worth $23.7 million—was most likely dead.

Pakistan International Airlines (PIA)

Pakistan International Airlines Corporation (PIA) was the national flag carrier of the Islamic Republic of Pakistan. Founded in 1954, PIA operated both scheduled passenger and cargo services. The firm was 57% state owned, with the remaining 43% held by private investors internal to Pakistan.

PIA’s fleet was aging. Although the airline had planned a significant modernization program, recent restrictions placed on government spending by the International Monetary Fund (IMF) had killed the program. With the cancellation of the fleet modernization program, PIA now had to move fast to ensure compliance with U.S. Federal Aviation Administration (FAA) safety mandates. If it did not comply with the FAA mandates for quieter engines and upgraded avionics by June 30, 1998, PIA would be locked out of its very profitable U.S. gates. PIA would first retrofit the aircraft utilized on the long-haul flights to the United States, primarily the Boeing 747 classics. Due to SAC’s extensive experience with a variety of control systems for Boeing and its recent work on cockpit retrofit for McDonnell Douglas aircraft, SAC felt it was the preferred supplier for PIA. However, SAC had not undertaken Boeing cockpit retrofits to date (no one had), and looked to the PIA deal as an opportunity to build a new competitive base. SAC’s insistence on payment in local currency terms was now thought to be a tactic to extract better concessions from SAC and their agent, Makran.

Ibrahim Makran Pvt. LTD

In countries like Pakistan, the use of an agent is often considered a necessary evil. The agent can often help to bridge two business cultures and provide invaluable information, but at some cost. Honeywell’s agent, Ibrahim Makran Pvt. LTD., based in Hyderabad, was considered one of the most reliable and well connected in Pakistan. Makran traced its roots back to a long association with the Sperry Aerospace and Marine Group, the precursor to Honeywell’s SAC unit (Sperry was acquired in 1986). Makran was also one of the largest import/export trading houses in Pakistan. It was 100% family-owned and managed.

Standard practice in the avionics business was to provide the agent with a 10% commission, although this was negotiable. The 10% was based on the final sales, and was paid after all payments were received. Typically, it was the agent who spotted the business opportunity and submitted a proposal to SAC Marketing.

After PIA contacted Makran regarding their latest demand, Makran knew that SAC would want to maintain the deal in U.S. dollars. Makran had therefore inquired as to the availability of dollar funds for a deal of this size from its own finance department. The finance department confirmed that they had the necessary dollar funds to pay SAC, but warned that policy was to charge 5% for services rendered and currency risks.

Makran advised SAC that it would be willing to purchase the receivable for an additional 5% (in addition to the 10% commission). Makran’s U.S. subsidiary in Los Angeles would credit SAC within 30 days of SAC invoicing Makran. SAC advised Makran that if SAC accepted payment in Pakistan rupees, then local (Pakistan) payment terms would apply. This meant 180 days in principle, but often was much longer in practice. The agent also advised SAC that the Pakistan rupee was due for another devaluation. When pressed for more information, Makran simply replied that the company president, the elder Ibrahim Makran, had “good connections.”

Pakistan Rupee

A central part of the IMF’s austerity program was a devaluation of the Pakistan rupee by 7.86% against the U.S. dollar on October 22, 1996. Now, roughly six months later, there was renewed speculation that another devaluation was imminent in order to limit imports and help the export sector earn badly needed hard currency. Another recent economic setback had been the ruling by the European Union that Pakistan was guilty of dumping cotton, and had imposed antidumping fines on Pakistani cotton. This was a painful blow to the export sector. The current exchange rate of 40.4795 Pakistan rupee (Rp) per dollar was maintained by the Pakistani Central Bank. The parallel market rate—black market rate—was approaching Rp50/USS. At present, there was no forward market for the Pakistan rupee.

Honeywell’s Working Capital

Honeywell’s finance department was attempting to reduce net working capital and just concluded a thorough review of existing payment terms and worldwide days sales receivable (DSR) rates. The department’s goal
was to reduce worldwide DSR rates from 55 to 45 days in the current fiscal year. The Pay for Performance target for the current year (the annual performance bonus system at Honeywell) included net working capital goals. There was concern in the organization that the net working capital goal could prove the obstacle to achieving a bonus despite excellent sales growth. The latest DSR report is shown in Exhibit 1.

Honeywell payment terms were net 30 from date of invoice. However, payment terms and practices varied dramatically across country and region. Payment terms were generally not published, with the exception of some private reports by credit rating agencies. Honeywell had not in the past enforced stringent credit terms on many customers. For example, neither contracts nor invoices stated any penalties for late payment. Many airlines did pay on time, but others availed themselves of Honeywell’s cheap financing.

A review of PIA’s account receivable history indicated that they consistently paid their invoices late. The current average DSR was 264 days. PIA had been repeatedly put on hold by the collections department, forcing marketing staff representatives to press the agent who in turn pressed PIA for payment. Honeywell was very concerned about this deal. It had, in fact, asked for guarantees that PIA would pay promptly. Honeywell’s concern was also reflected in the 20% advance payment clause in the contract. Although marketing took the high DSR rate up with PIA and the agent, the current proposed deal was expected to be the same if not worse.

One positive attribute of the proposed contract was that delivery would not occur until one year after the contract was signed. The invoice for the full amount outstanding would be issued at that time. If the expected improvements to the DSR were made in the meantime, maybe the high DSR rate on the PIA deal could be averaged with the rest of Asia. The 20% advance would be used to fund the front-end engineering work.

Global treasury at Honeywell was headquartered along with corporate in Minneapolis, Minnesota. Corporate treasury was a profit center and charged 1% commission on all sales. Treasury, however, passed on the currency risk to the business unit. If a local subsidiary required local currency, treasury would try to match those requirements by accepting the A/R in the local currency. They had advised SAC that for many developing countries where Honeywell had little or no activities such as Pakistan, this was done only on an exception basis. Global treasury also evaluated all deals in present value terms given the extended payment periods, and the corporate cost of capital was set at 12%.

**Negotiations**

Honeywell now speculated that the local currency request was a result of the 20% advance payment clause. The project was considered one of the riskiest SAC had

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**EXHIBIT 1** SAC Control Systems’ Average Days Sales Receivables by Region

<table>
<thead>
<tr>
<th>Region</th>
<th>Actual</th>
<th>Target</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>44</td>
<td>40</td>
<td>$31 million</td>
</tr>
<tr>
<td>South America</td>
<td>129</td>
<td>70</td>
<td>$2.1 million</td>
</tr>
<tr>
<td>Europe</td>
<td>55</td>
<td>45</td>
<td>$5.7 million</td>
</tr>
<tr>
<td>Middle East</td>
<td>93</td>
<td>60</td>
<td>$3.2 million</td>
</tr>
<tr>
<td>Asia</td>
<td>75</td>
<td>55</td>
<td>$11 million</td>
</tr>
<tr>
<td>PIA</td>
<td>264</td>
<td>180</td>
<td>$0.7 million</td>
</tr>
<tr>
<td>Boeing</td>
<td>39</td>
<td>30</td>
<td>$41 million</td>
</tr>
<tr>
<td>McDonnell Douglas</td>
<td>35</td>
<td>30</td>
<td>$18 million</td>
</tr>
<tr>
<td>Airbus Industries</td>
<td>70</td>
<td>45</td>
<td>$13 million</td>
</tr>
</tbody>
</table>

**Notes:**

1. U.S.-based airline trading companies distort the actual local payment terms.
2. The spread between individual customers within regions can be extremely large.
3. Some collection activity is assumed. Specific customers are periodically targeted.
4. Disputed invoices are included. Amount is for all products, services, and exchanges.
5. One of the criteria for granting “preferred” pricing is a 30-day DSR. The 10% reduction can be substantial but typically only motivates the larger customers.
undertaken, and the 20% advance payment would help reach the group’s DSR goals. The DSR was being watched on a daily basis by division management. This project had already been forced to secure group-level approval because it fell below the minimum return on sales target. SAC’s management had counted on the deal to make its annual sales targets, and that now seemed in jeopardy. It would need to act soon if it was to reach its targets.

Questions

1. **Constraints on Positioning Funds.** Each of the following factors is sometimes a constraint on the free movement of funds internationally. Why would a government impose such a constraint? How might the management of a multinational argue that such a constraint is not in the best interests of the government that has imposed it?
   a. Government mandated restrictions on moving funds out of the country
   b. Withholding taxes on dividend distributions to foreign owners
   c. Dual currency regimes, with one rate for imports and another rate for exports
   d. Refusal to allow foreign firms in the country to net cash inflows and outflows into a single payment

2. **Unbundling.** What does this term mean? Why would unbundling be needed for international cash flows from foreign subsidiaries, but not for domestic cash flows between related domestic subsidiaries and their parent?

3. **Conduits.** In the context of unbundling cash flows from subsidiary to parent, explain how each of the following creates a conduit. What are the tax consequences of each?
   a. Imports of components from the parent
   b. Payment to cover overhead expenses of parent managers temporarily assigned to the subsidiary
   c. Payment of royalties for the use of proprietary technology
   d. Subsidiary borrowing of funds on an intermediate or long-term maturity from the parent
   e. Payment of dividends to the parent

4. **Sister Subsidiaries.** Subsidiary Alpha in Country Able faces a 40% income tax rate. Subsidiary Beta in Country Baker faces only a 20% income tax rate. Presently each subsidiary imports from the other an amount of goods and services exactly equal in monetary value to what each exports to the other. This method of balancing intracompany trade was imposed by a management keen to reduce all costs, including the costs (spread between bid and ask) of foreign exchange transactions. Both subsidiaries are profitable, and both could purchase all components domestically at approximately the same prices as they are paying to their foreign sister subsidiary. Does this seem like an optimal situation?

5. **Allocated Fees—1.** What is the difference between a “license fee” and a “royalty fee?” Do you think license and royalty fees should be covered by the tax rules that regulate transfer pricing? Why?

6. **Allocated Fees—2.** What is the difference between a “management fee,” a “technical assistance fee,” and a “license fee for patent usage?” Should they be treated differently for income tax purposes?

7. **Distributed Overhead.** What methods might the U.S. Internal Revenue Service use to determine if allocations of distributed overhead are being fairly allocated to foreign subsidiaries?

8. **Fee Treatment.** In the context of unbundling cash flows from subsidiary to parent, why might a host government be more lenient in its treatment of fees than its treatment of dividends? What difference does it make to the subsidiary and to the parent?

9. **The Cycle.** The operating cycle of a firm, domestic or multinational, consists of the following time periods:
   a. Quotation
   b. Input sourcing
   c. Inventory
   d. Accounts receivable
   For each of these periods, explain whether a cash outflow or a cash inflow is associated with the beginning and the end of the period.

10. **Accounts Payable Period.** Exhibit 18.1 shows the accounts payable period to be longer than the inventory period. Could this be otherwise, and what would be the cash implications?

11. **Payables and Receivables.** As a financial manager, would you prefer that the accounts payable period
CHAPTER 18 Working Capital Management

end before, at the same time, or after the beginning of the accounts receivable period? Explain.

12. **Transaction Exposure.** Assuming the flow illustrated in Exhibit 18.1, where does transaction exposure begin and end if inputs are purchased with one currency at \( t_1 \) and proceeds from the sale are received at \( t_5 \)? Is there more than one interval of transaction exposure?

13. **Operating Exposure.** Is any operating exposure created during the course of a firm’s Operating Cycle?

14. **Accounting Exposure.** Is any accounting exposure created during the course of a firm’s Operating Cycle?

15. **Reducing NWC.** Assume a firm purchases inventory with one foreign currency and sells it for another foreign currency, neither currency being the home currency of the parent or subsidiary where the manufacturing process takes place. What can the firm do to reduce the amount of net working capital?

16. **Trade Terms.** Roberts and Sons, Inc., of Great Britain has just purchased inventory items costing Kronor 1,000,000 from a Swedish supplier. The supplier has quoted terms 3/15, net 45. Under what conditions might Roberts and Sons reasonably take the discount, and when might it be a reasonable idea to wait the full 45 days to pay?

17. **Inventory Turnover.** Japanese industry is often praised for its “just-in-time” inventory practice between industrial buyers and industrial sellers. In the context of the “Day’s Receivables” turnover in Exhibit 18.3, what is the comparative impact of the “just-in-time” system in Japan? Are there any risks associated with this system? Do you think this applies equally to Japanese manufacturing firms sourcing raw material and components in Japan and those sourcing similar items from Thailand and Malaysia?

18. **Receivables Turnover.** Why might the time lag for intramultinational firm accounts receivable and payable (i.e., all received or paid to a parent or sister subsidiary) differ substantially from the time lags reported for transactions with non-affiliated companies?


20. **Free-Trade Zones.** What are the advantages of a Free-Trade Zone? Are there any disadvantages?

21. **Motives.** Explain the difference between the “transaction motive” and the “precautionary motive” for holding cash.

22. **Cash Cycle.** The operating cash cycle of a multinational firm goes from cash collection from customers, cash holding for anticipated transaction needs (the transaction motive for holding cash), possible cash repositioning into another currency, and eventual cash disbursements to pay operating expenses. Assuming the initial cash collection is in one currency and the eventual cash disbursement is in another currency, what can a multinational firm do to shorten its cash cycle and what risks are involved?

23. **Electro-Beam Company.** Electro-Beam Company generates and disburses cash in the currencies of four countries, Singapore, Malaysia, Thailand, and Vietnam. What would be the characteristics you might consider if charged with designing a centralized cash depository system for Electro-Beam Company’s Southeast Asian subsidiaries?

24. **France.** During the era of the French franc, France imposed a rule on its banks and subsidiaries of international companies operating in France that precluded those subsidiaries from netting cash flow obligations between France and non-French related entities. Why do you suppose the French government imposed such a rule, and what if anything could subsidiaries in France have done about it?

25. **Foreign Bank Office.** What is the difference between a foreign branch and a foreign subsidiary of a home-country bank?

**Problems**

1. **Frozen Vapor.** Frozen Vapor of Toulouse, France, manufactures and sells skis and snowboards in France, Switzerland, and Italy, and also maintains a corporate account in Frankfurt, Germany. Frozen Vapor has been setting separate operating cash balances in each country at a level equal to expected cash needs plus two standard deviations above those needs, based on a statistical analysis of cash flow volatility. Expected operating cash needs and one standard deviation of those needs are as follows:

<table>
<thead>
<tr>
<th>Country of Subsidiary</th>
<th>Expected Cash Need</th>
<th>One Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland</td>
<td>€5,000,000</td>
<td>€1,000,000</td>
</tr>
<tr>
<td>Italy</td>
<td>3,000,000</td>
<td>400,000</td>
</tr>
<tr>
<td>France</td>
<td>2,000,000</td>
<td>300,000</td>
</tr>
<tr>
<td>Germany</td>
<td>800,000</td>
<td>40,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>€10,800,000</strong></td>
<td><strong>€1,740,000</strong></td>
</tr>
</tbody>
</table>
Frozen Vapor’s Frankfurt bank suggests that the same level of safety could be maintained if all precautionary balances were combined in a central account at the Frankfurt headquarters.

a. How much lower would Frozen Vapor’s total cash balances be if all precautionary balances were combined? Assume cash needs in each country are normally distributed and are independent of each other.

b. What other advantages might accrue to Frozen Vapor from centralizing its cash holdings? Are these advantages realistic?

2. Atsushi Japan. Atsushi Japan, the Japanese subsidiary of a U.S. company has ¥100,000,000 in accounts receivable for sales billed to customers on terms of 2/30 n/60. Customers usually pay in 30 days. Atsushi also has ¥60,000,000 of accounts payable billed to it on terms of 3/10 n/60. Atsushi delays payment until the last minute because it is normally short of cash. Atsushi normally carries an average cash balance for transactions of ¥30,000,000. How much cash could Atsushi save by taking the discount?

3. Dalziel Publishing Company. Dalziel Publishing Company publishes books in Europe through separate subsidiaries in several countries. On a Europe-wide basis, Dalziel publishing experiences uneven cash flows. Any given book creates a cash outflow during the period of writing and publishing, followed by a cash inflow in subsequent months and years as the book is sold. To handle these imbalances, Dalziel decided to create an in-house bank.

a. What would be the net interest earnings (i.e., interest earned less interest paid, before administrative expenses), of Dalziel’s in-house bank for the month of April?

b. If parent Dalziel Publishing subsidized the in-house for all of its operating expenses, how much more could the in-house bank loan at the beginning of April?

4. Tierra Technology, Inc. Tierra Technology, Inc., manufactures basic farm equipment in China, Spain, and Iowa. Each subsidiary has monthly unsettled balances due to or from other subsidiaries. At the end of December, unsettled intracompany debts in U.S. dollars were as follows:

<table>
<thead>
<tr>
<th>Subsidiary</th>
<th>Amount</th>
<th>Transaction Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owes to Spanish subsidiary</td>
<td>$8,000,000</td>
<td>$32,000</td>
</tr>
<tr>
<td>Owes to Iowa parent</td>
<td>$9,000,000</td>
<td>$36,000</td>
</tr>
<tr>
<td>Owes to Chinese subsidiary</td>
<td>$5,000,000</td>
<td>$20,000</td>
</tr>
<tr>
<td>Owes to Iowa parent</td>
<td>$6,000,000</td>
<td>$24,000</td>
</tr>
<tr>
<td>Owes to Chinese subsidiary</td>
<td>$4,000,000</td>
<td>$16,000</td>
</tr>
<tr>
<td>Owes to Spanish subsidiary</td>
<td>$10,000,000</td>
<td>$40,000</td>
</tr>
</tbody>
</table>

a. How could Tierra Technology net these intracompany debts? How much would be saved in transaction expenses over the no-netting alternative?

b. Before settling the above accounts, Tierra Technology decides to invest $6,000,000 of parent funds in a new farm equipment manufacturing plant in the new Free Industrial Zone at Subic Bay, The Philippines. How can this decision be incorporated into the settlement process? What would be total bank charges? Explain.

5. Paignton Company (France). Consider the following series of business events:

March 1: Paignton Company seeks a sale at a price of €10,000,000 for items to be sold to a long-standing client in Poland. To achieve the order, Paignton offered to denominate the order in zlotys (Z), Poland’s currency, for Z20,000,000. This price was arrived at by multiplying the euro price by Z2.00/€, the exchange rate on the day of the quote. The zloty is expected to fall in value by 0.5% per month versus the euro.

April 1: Paignton receives an order worth Z20,000,000 from the customer. On the same day, Paignton places orders with its vendors for 4,000,000 of components needed to complete the sale.

May 1: Paignton receives the components and is billed €4,000,000 by the vendor on terms of 2/20, net 60. During the next two months, Paignton assigns direct labor to work on the project. The expense of direct labor was €5,000,000.

July 1: Paignton ships the order to the customer and bills the customer Z20,000,000. On its corporate books, Paignton debits accounts receivable and credits sales.

Sept 1: Paignton’s customer pays Z20,000,000 to Paignton.

a. Draw a cash flow diagram for this transaction in the style of Exhibit 18.1 and explain the steps involved.

b. What working capital management techniques might Paignton use to better its position vis-à-vis this particular customer?
6. Ozark MediSurge, Inc. Ozark MediSurge, Inc. of Missouri wants to set up a regular procedure for transferring funds from its newly opened manufacturing subsidiary in Korea to the United States. The precedent set by the transfer method or methods is likely to prevail over any government objections that might otherwise arise in the future. The Korean subsidiary manufactures surgical tools for export to all Asian countries. The following pro forma financial information portrays the results expected in the first full year of operations. Ozark MediSurge’s CFO is pondering these approaches:

a. Declare a dividend of Won362,340,000, equal to 50% of profit after taxes. The dividend would be taxable in the United States after a gross-up for Korean taxes already paid.

b. Add a license fee of Won362,340,000 to the above expenses, and remit that amount annually. The license fee would be fully taxable in the United States.

Internet Exercises

1. Working Capital Management. Using the Web sites of a variety of these cross-border banks, search out which banks offer multinational cash management services that would combine banking with foreign exchange management. Which banks provide specific services through regional or geographic service centers?

   Bank of America www.bankamerica.com/corporate/

2. New Zealand Working Capital. Use the New Zealand government’s definition and analysis of working capital and compare that presented in this chapter. How does the New Zealand definition result in different management practices?


3. Clearinghouse Associations. Use the following Web sites to prepare an executive briefing on the role of clearinghouses in history and in contemporary finance. Use the Web site for the Clearing House Interbank Payments System (CHIPS) to estimate the volume of international financial transactions.

   New York Clearinghouse www.theclearinghouse.org/Association
   Clearing House Interbank Payments System www.chips.org/