MULTINATIONAL WORKING CAPITAL MANAGEMENT

SHORT-TERM FINANCING

SHORT-TERM FINANCING

A. Strategy

1. Identify: key factors
2. Formulate/evaluate: objectives
3. Describe: available options
4. Develop a methodology: to calculate/compare costs

SHORT-TERM FINANCING

Key Factors

1. Deviations from Int'l Fisher Effect?

   a. If yes

      trade-off required between

      cost and exchange risk

   b. If no

      costs are same everywhere

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2. Exchange Risk
   a. Offset foreign assets with foreign liabilities
   b. Borrow where no exposure increases exchange risk
3. Firm's Risk Aversion

   direct relation to price incurred to reduce exposure

SHORT-TERM FINANCING

4. Does Interest Rate Parity Hold?
   a. Yes. Currency is irrelevant.
   b. No. Cover costs may differ
      -added risk may mean the
      forward premium/discount
      does not offset interest rate
      differentials.

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5. Political Risk: If high,
   a. MNCs should
      1.) maximize local financing.

      2.) Faced with confiscation or currency controls, fewer assets at risk.

SHORT-TERM FINANCING

C. Short-Term Financing Objectives

1. Four Possible Objectives:
    a. Minimize expected cost.
    b. Minimize risk without regard to cost.
    c. Trade off expected cost and systematic risk.
    d. Trade off expect cost and total risk.

SHORT-TERM FINANCING

D. Short-Term Financing Options
   1. Three Possibilities
      a. Inter-company loans
      b. Local currency loans
      c. Euro market

SHORT-TERM FINANCING

2. Local Currency Financing: Bank Loans
   a. Short-term in nature
      role of cleanup clause
   b. Forms
      1.) Term loans
      2.) Line of credit
      3.) Overdrafts
      4.) Revolving Credit
      5.) Discounting

SHORT-TERM FINANCING

3. Calculating Interest Costs
   a. Effective interest rate (EIR): most efficient measure of cost
   b. Basic formula:

$$\text{EIR} = \frac{\text{Annual Interest Paid}}{\text{Funds Received}}$$

SHORT-TERM FINANCING

4. Commercial Paper
   a. Definition:
      short-term unsecured promissory note generally sold by large MNCs on a discount basis.
   b. Standard maturities
   c. Bank fees charged for:
      1.) Backup line of credit
      2.) Credit rating service

INTERNATIONAL CASH MANAGEMENT

1. Organization
2. Collection/Fund Disbursement
3. Interaffiliate Payments Netting

INTERNATIONAL CASH MANAGEMENT

Goals of an International Cash Manager

1. Quick/efficient cash control
2. Optimal conservation/usage of fund

1.Organization: Centralized cash management

Advantages:

a. Efficient liquidity levels

b. Enhanced profitability

c. Quicker headquarter action

INTERNATIONAL CASH MANAGEMENT

Advantages (con')

d. Decision making enhanced

e. Better volume currency quotes

f. Greater cash management expertise

g. Less political risk

2.**Collection/Disbursement of Funds**

1. Key Element: Accelerate collections
2. Acceleration Methods:

INTERNATIONAL CASH MANAGEMENT

Methods to expedite collection of receivables

a. Cable remittances: to minimize delays in receipt of payment

b. Mobilization centers: to cope up with some of the transmitted delays associated with checks or drafts

c. Lock boxes: a postal box in the company's name

d. Electronic fund transfers

INTERNATIONAL CASH MANAGEMENT

Methods to Expedite Cash Payments

a. Cable remittances

b. Establish accounts in client's bank

c. Negotiate with banks obtain value dating

INTERNATIONAL CASH MANAGEMENT

3.Payments Netting

1. Definition:

   offset payments of affiliate receivables/payables so that net amounts only are transferred.

2. Create Netting Center

   a. a subsidiary set up in a location with minimal exchange controls

INTERNATIONAL CASH MANAGEMENT

2. Creating Netting Centers (con’t)
   - b. Coordinate interaffiliate payment flows
   - c. Center’s value is a direct function of transfer volume.

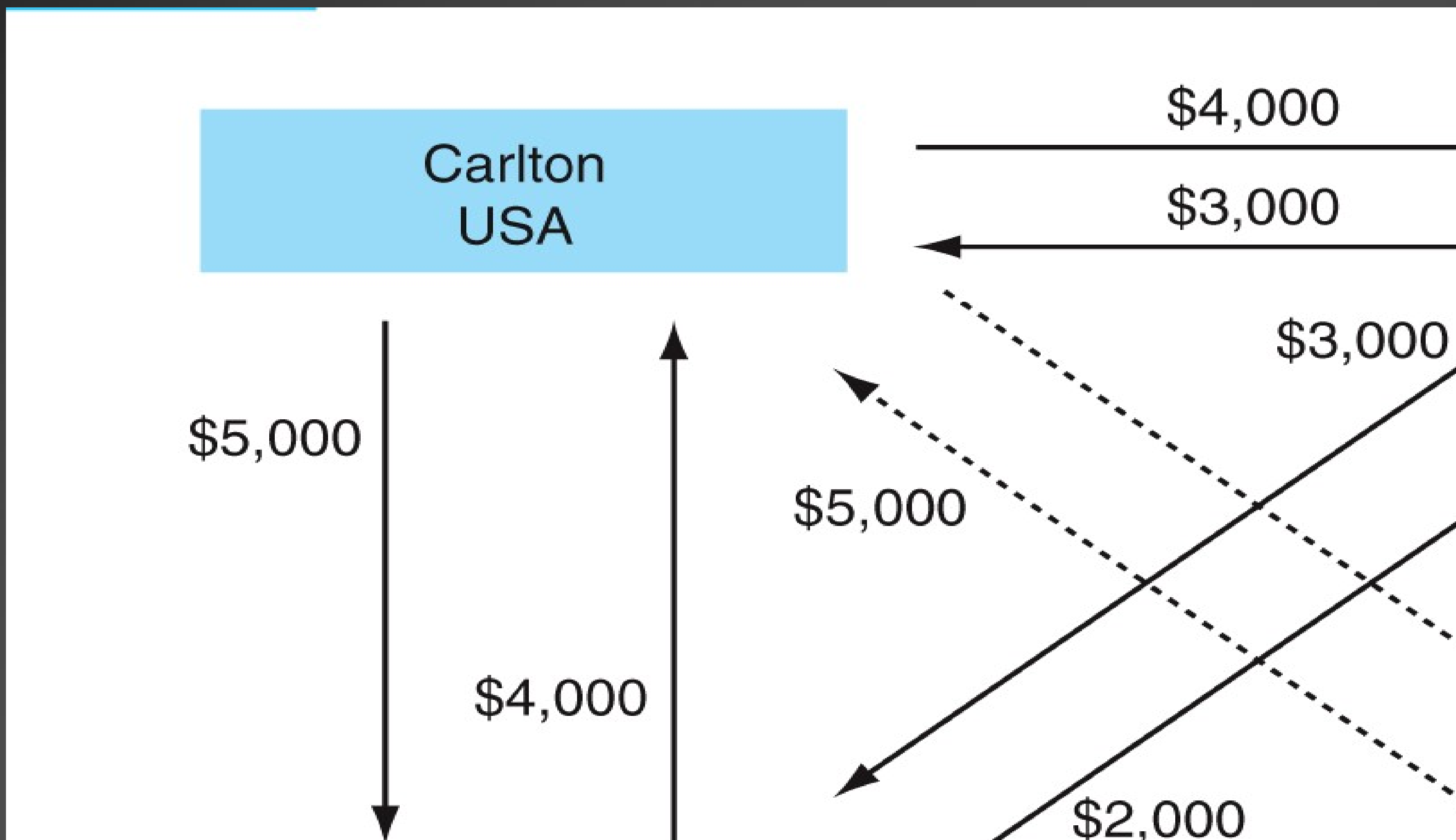
Exhibit: Intercompany payment Matrix (US $ Million)

			Paying Affiliates		
Receiving Affiliates	United States	France	Sweden	Belgium	**Total receipt**
United States	_	8	7	4	**19**
France	6	_	4	2	**12**
Sweden	2	0	_	3	**5**
Belgium	1	2	5	_	**8**
Total payment	**9**	**10**	**16**	**9**	**44**

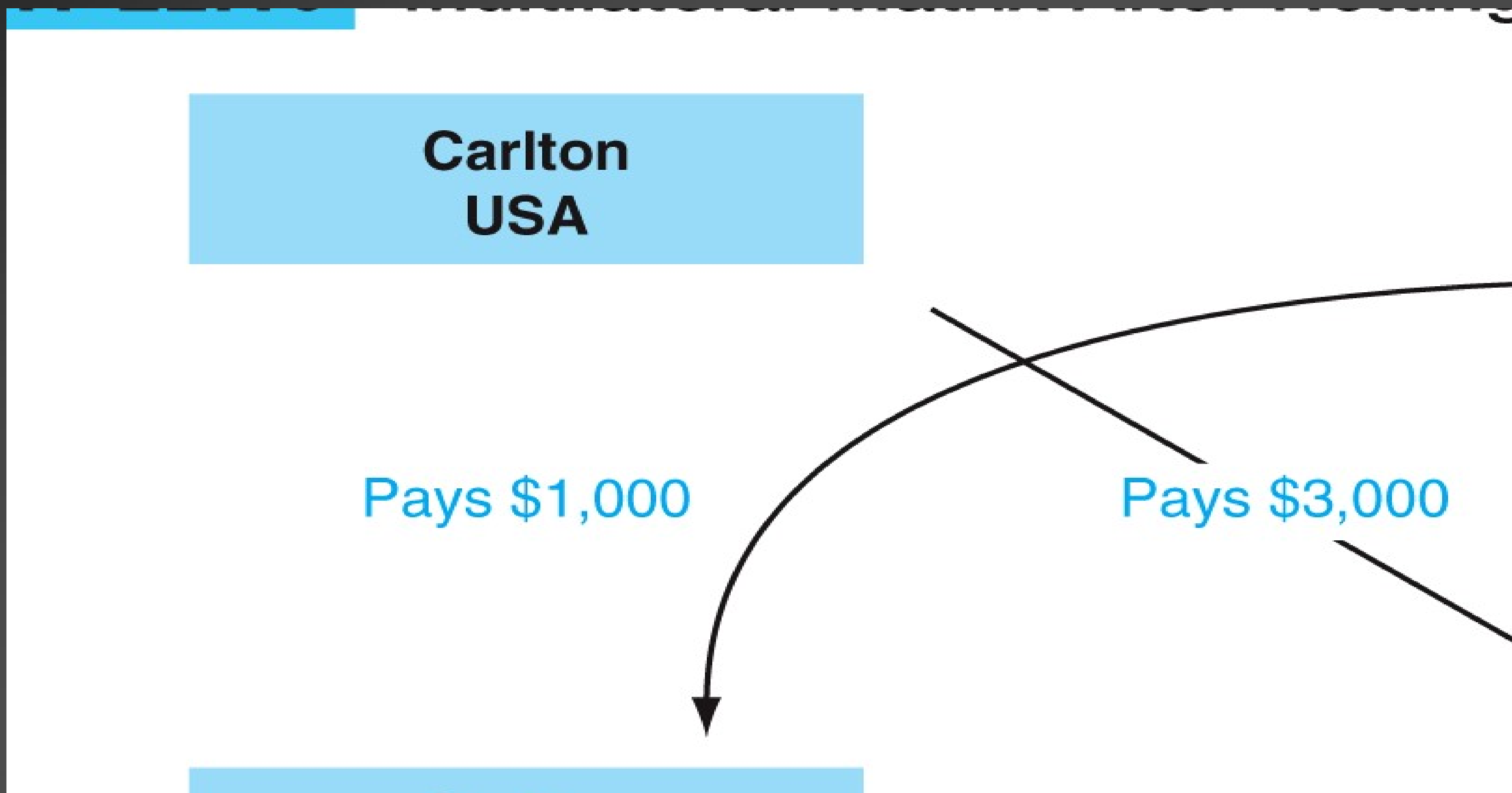
Exhibit: Intercompany payment Matrix (US $ Million)

	Receipt	Payment	Net Receipt	Net Payment
United States	19	9	**10**	_
France	12	10	**2**	_
Sweden	5	16	_	**11**
Belgium	8	9	_	**1**

PAYMENT NETTING



PAYMENT NETTING



INTERNATIONAL CASH MANAGEMENT(con't)

4. Excess fund investment
5. Optimal global cash management
6. Bank relations

INTERNATIONAL CASH MANAGEMENT

Excess Funds Investment:

Major task:

a. determine minimum cash balances

b. short-term investment of excess balances

A major task of international cash management is to determine the levels and currency denominations of the multinational group's investment in cash balances and money market instruments.

Investing Excess Cash

- Excess funds can be invested in domestic or foreign short-term securities, such as Eurocurrency deposits, bills, and commercial papers.
- Sometimes, foreign short-term securities have higher interest rates. However, firms must also account for the possible exchange rate movements.

Requirements For Excess Funds Investment

a. Forecast of cash needs

b. Knowledge of minimum cash position

- These projections should take into account the effects of inflation and anticipated currency changes on future cash flows.
- Successful management of an MNC's required cash balances and of any excess funds generated by the firm and its affiliates depends largely on the astute selection of appropriate short-term money market instruments.

Investment Selection Criteria

a. Government regulations
b. Market structure
c. Foreign tax laws

Rewarding opportunities exist in many countries, but the choice of an investment medium depends on government regulations, the structure of the market, and the tax laws, all of which vary widely.

Optimal Global Cash Balances

- 1. Establish centrally managed cash pool
  2. Require affiliates to hold minimum.
- Centralized cash management typically involves the transfer of an affiliate's cash in excess of minima! operating requirements into a centrally managed account, or cash pool. Some firms have established a special corporate entity that collects and disburses funds through a single bank account.
- With cash pooling, each affiliate need hold locally only the minimum cash balance required for transactions purposes. All precautionary balances are held by the parent or in the pool. As long as the demands for cash by the various units are reasonably independent of each other, centralized cash management can provide an equivalent degree of protection with a lower level of cash reserves

Benefits of Optimal Cash Balances

1. Less borrowing needed
2. More excess fund investment
3 . Reduced internal expense
4. Reduced currency exposure

Another benefit from pooling is that either less borrowing need be done or more excess funds are available for investment where returns will be maximized. Consequently, interest expenses are reduced or investment income is increased. In addition, the larger the pool of funds, the more worthwhile it becomes for a firm to invest in cash management expertise. Furthermore, pooling permits exposure arising from holding foreign currency cash balances to be centrally managed.

Cash Planning and Budgeting

- The key to the successful global coordination is a good reporting system
- Cash receipts must be reported and forecast in a comprehensive, accurate, and timely manner.
- You must know the financial positions of affiliates, the forecast cash needs or surpluses, the anticipated cash inflows and outflows, local and international money market conditions, and likely currency movements.

Cash Planning and Budgeting

■ EXHIBIT 14.6 Daily Cash Reports of European Central Cash Pool (U.S. $ Thousands)

Date: July 12, 199X
Affiliate: France
Cash Position: –150
Five-Day Forecast:

Day	Deposit	Disburse	Net
1	400	200	+200
2	125	225	–100
3	300	700	–400
4	275	275	0
5	250	100	+150
		Net for period	–150

Date: July 12, 199X
Affiliate: Germany
Cash Position: +350
Five-Day Forecast:

Day	Deposit	Disburse	Net
1	430	50	+380
2	360	760	–400
3	500	370	+130
4	750	230	+520
5	450	120	+330
		Net for period	+960

Date: July 12, 199X
Affiliate: Italy
Cash Position: +400
Five-Day Forecast:

Day	Deposit	Disburse	Net
1	240	340	–100
2	400	275	+125
3	480	205	+275
4	90	240	–150
5	300	245	+ 55
		Net for period	+205

Date: July 12, 199X
Affiliate: England
Cash Position: +100
Five-Day Forecast:

Day	Deposit	Disburse	Net
1	100	50	+ 50
2	260	110	+150
3	150	350	–200
4	300	50	+250
5	200	300	–100
		Net for period	+150

Cash Planning and Budgeting

- The information contained in these reports can be used to decide how to cover any deficits and where to invest temporary surplus funds.
- The cash forecasts contained in the daily reports can aid in determining when to transfer funds to or from the central pool and the maturities of any borrowings or investments.

Aggregate Cash Position of European Central Cash Pool (U.S. $ Thousands)

	Daily Cash Position, July 12, 199X		
Affiliate	Closing Balance	Minimum Required	Cash Balance Surplus (Deficit)
France	–150	100	–250
Germany	+350	250	100
Italy	+400	150	250
England	+100	125	– 25
Regional surplus (deficit)			+ 75

Bank Relations

Good bank relations are central to a company's international cash management effort. Although some companies may be quite pleased with their banks' services, others may not even realize that they are being poorly served by their banks. Poor cash management services mean lost interest revenues, overpriced services, and inappropriate or redundant services.

Good Relations Will Avoid :

a. Lost interest income

b. Overpriced services

c. Redundant services

Common Bank Relations Problems

1. Too many banks
2. High costs
3. Inadequate reporting
4. Excessive clearing delays

1. ***Too many relations:*** Using too many banks can be expensive. It also invariably generates idle balances, higher compensating balances, more check-clearing float, suboptimal rates on foreign exchange and loans, a heavier administrative workload, and diminished control over every aspect of banking relations.

Common Bank Relations Problems

- **2. *High banking costs:*** To keep a lid on bank expenses, treasury management must carefully track not only the direct costs of banking services—including rates, spreads, and commissions—but also the indirect costs rising from check float, value-dating
- 3. ***Inadequate reporting:*** Banks often don't provide immediate information on collections and account balances. This delay can cause excessive amounts of idle cash and prolonged float. To avoid such problems, firms should instruct their banks to provide daily balance information and to clearly distinguish between ledge and collected balances—that is, posted totals versus immediately available funds.

Common Bank Relations Problems

- **4. *Excessive clearing delays:*** In many countries ,like Mexico, Spain, Italy, and Indonesia, checks drawn on banks located in remote areas can take weeks to clear to headquarters accounts in the capital city. it is crucial that companies constantly check up on their banks to ensure that funds are credited to accounts as expected.

- Negotiating better service is easier if the company is a valued customer.
- Demonstrating that it is a valuable customer requires the firm to have ongoing discussions with its bankers to determine the precise value of each type of banking activity and the value of the business it generates for each bank.
- Armed with this information, the firm should make up a monthly report that details the value of its banking business.
- By compiling this report, the company knows precisely how much business it is giving to each bank it uses. With such information in hand, the firm can negotiate better terms and better service from its banks.

ACCOUNTS RECEIVABLE MANAGENENT

Accounts receivable

Credit Extension

ACCOUNTS RECEIVABLE MANAGENENT

Meaning of Account Receivable:

Firms grant trade credit to customers, both domestically and internationally, because they expect the investment in receivables to be profitable either by expanding sales volume or by retaining sales that otherwise would be lost to competitors. Some companies also earn a profit on the financing charges they levy on credit sales.

ILLUSTRATION

- **Nestle Charge for Working Capital**. Nestle charges local subsidiary managers for the interest expense of net working capital using an internally devised standard rate. The inclusion of this finance charge encourages country managers to keep a tight rein on accounts receivable because the lower the net working capital, the lower the theoretical interest charge, and the higher their profits.

Credit Extension

- Two key credit decisions to be made by firm selling abroad are the amount of credit to extend and the currency in which credit sales are to be billed.

Credit Extension

- Assuming that both buyer and seller have access to credit at the same cost and reflect in their decisions anticipated currency changes and inflation, it should normally make no difference to a potential customer whether it receives additional credit or an equivalent cash discount. However, the **MNC** may benefit by revising its credit terms in three circumstances

Credit Extension: Circumstances

- The buyer and seller hold different opinions concerning the future course of inflation or currency changes, leading one of the two to prefer term/ price discount trade-offs (that is, a lower price if paid within a specified period).
- The MNC has a lower risk-adjusted cost of credit than does its customer because of market imperfections. In other works, the buyer's higher financing cost must not be a result of its greater riskiness.
- During periods of credit restraint in a country. The affiliate of an MNC may have access to fund (because of its parent) that local companies do not have and may, there by gain a marketing advantage over its competitors. Absolute availability of money, rather than its cost, may be critical.

Approaches for expected benefits and costs associated

- Calculate the current cost of extending credit.
- Calculate the cost of extending credit under the revised credit policy.
- Using the information for steps 1 and 2, calculate incremental credit costs under the revised credit policy.
- Ignoring credit costs, calculate incremental profits under the new credit policy.
- If, and only if, incremental profits exceed incremental credit costs, select the new credit policy.

INVENTORY MANAGEMENT

- ✓About inventory.
- ✓Role of inventory in Working capital cycle.
- ✓Production location & inventory capital.
- ✓Advance inventory purchases.
- ✓Inventory stockpiling.
- ✓Conclusion.

ABOUT INVENTORY

Inventory in the form of raw material, work in process, or finished goods is held

(a) to facilitate the production process by both ensuring that supplies are at hand when needed and allowing a more even rate of production and

(b) to make certain that goods are available for delivery at the time of sale.

ABOUT INVENTORY

MNCs typically find it more difficult to control their overseas inventory and realize inventory turnover objectives. varied reasons are

(a) long and variable transits times if ocean transportation is used;

(b) lengthy customs proceedings;

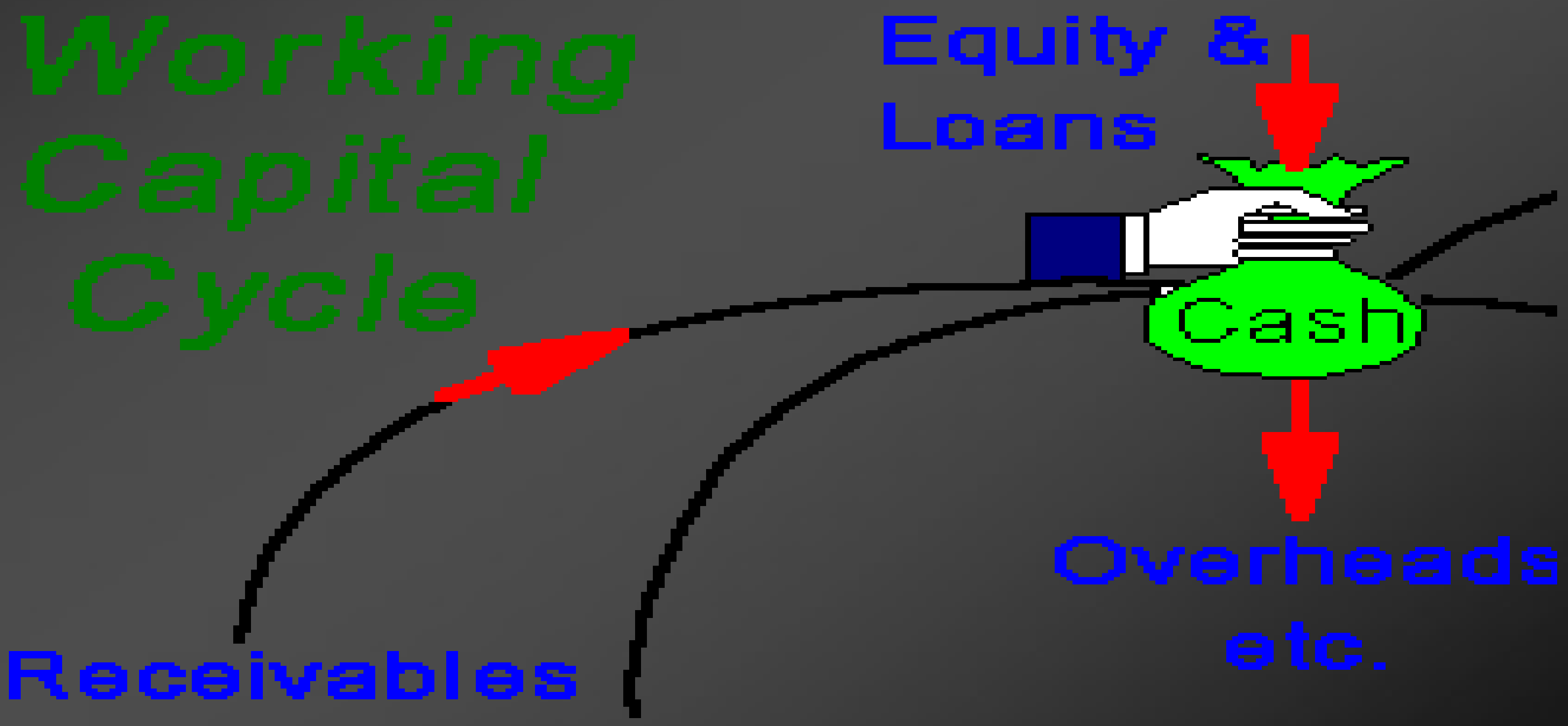
(c) dock strikes;

(d) import controls;

(e) higher duties;

(i) supply disruption and anticipated changes in currency values.

ROLE OF INVENTORY IN WORKING CAPITAL MANAGEMENT



PRODUCTION LOCATION & INVENTORY CONTROL

Production Location/Inventory Control

Overseas location may lead to higher inventory carrying costs due to

a. Because of the delays in international shipment and potential supply disruptions firms holds larger amounts of work-in-process

b. more finished goods

PRODUCTION LOCATION …………

Example:

- ✓ Cypress Semiconductor decided not to manufacture their circuits overseas.
- ✓ An average cost per chip of $8;
- ✓ By producing overseas they can reduce labour costs by $0.032 per chip;
- ✓ BUT, offshore production incurs extra shipping and customs costs of $0.025 per chip;
- ✓ Assuming an opportunity cost of 20% ;
- ✓ AND, ties up capital in inventory for extra 5 weeks:

Added Interest Expense = cost of funds x extra time x cost of part

= 0.20 x 5/52 x $8

= $0.154

ADVANCE INVENTORY PURCHASES

- ✓ In many developing countries, forward contracts for foreign currency are limited in availability or are non existent. In addition, restrictions often preclude free remittances, making it difficult, if not impossible, to convert excess funds in to a hard currency.
- ✓ One means of hedging is to engage in anticipatory purchases of goods, especially imported items in advance .

ADVANCE INVENTORY……………

For example

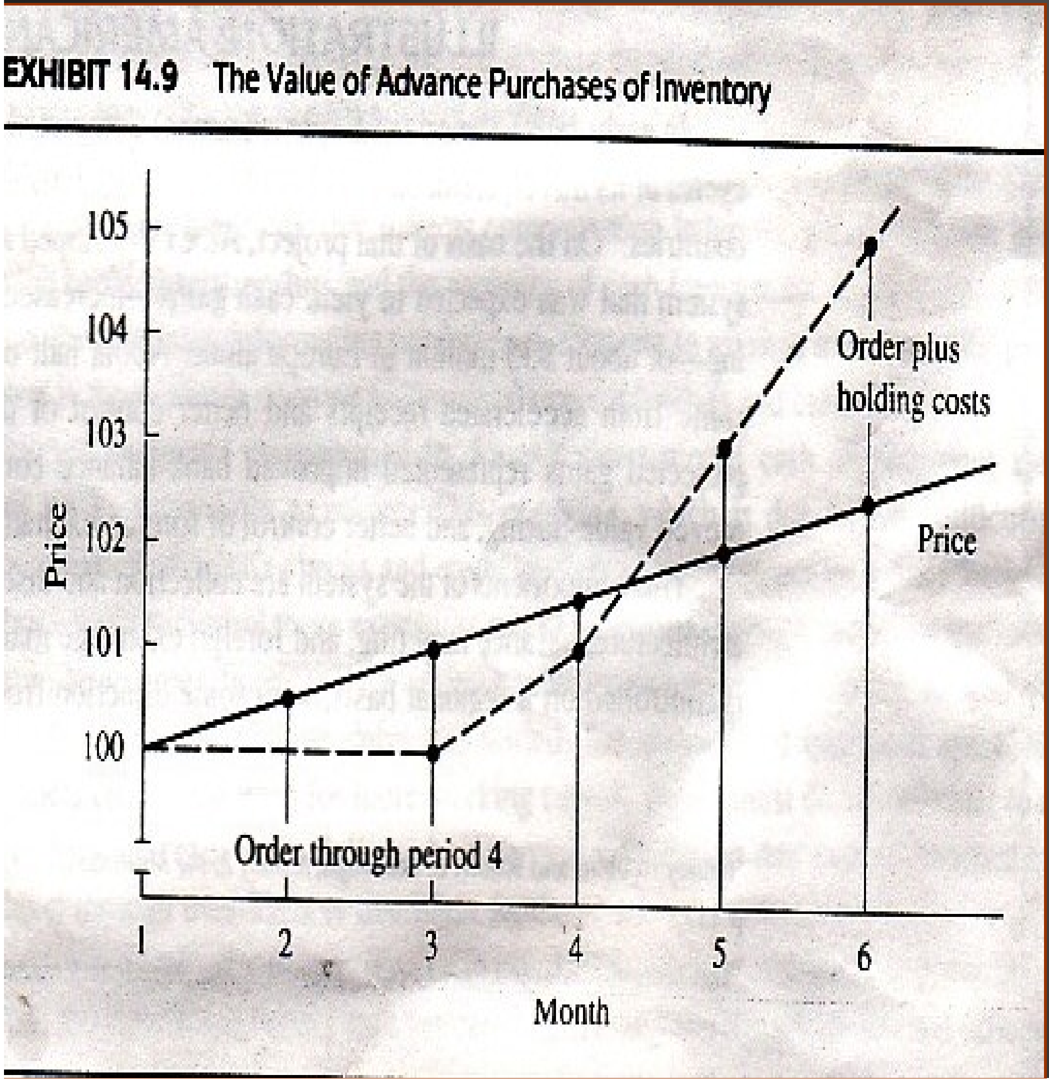
- ✓ the present price of component is DM 100
- ✓ This price is rising at the rate of 0.5% monthly
- ✓ Deutsche mark holding cost is estimated at 1% monthly including insurance, warehousing, spoilage, but excluding the opportunity cost)
- ✓ Holding cost increases by 0.5% monthly
- ✓ excess cruzeiro balance in Brazil on which it is earning a nominal monthly rate of 2%.
- ✓ under Brazil's system of devaluation. The cruzeiro is expected to devalue against the Deutsche mark by 3% in each of the next three months, 2% in the fourth month, and 1% thereafter.

ADVANCE INVENTORY……………..

Months	Opportunity Cost of fund
1.	-1
2.	-1
3.	-1
4.	0
5.	1
6.	1

Beginning month	Total Monthly carrying cost (%)	Cumulative carrying cost	Cumulative price increase (%)
1.	0	0	0.0
2.	0	0	0.5
3.	0	0	1.0
4.	1	1	1.5
5.	2	3	2.0
6.	2	5	2.5

ADVANCE INVENTORY……………..



It is now apparent that the existence of anticipated cruzeiro devaluations, unmatched by correspondingly higher nominal interest rates-should lead to hedge a portion of its cash balances by purchasing four months worth of inventory at today's prices (and at today's DM: cruzeiro exchange rate).

INVENTORY STOCKPILING

Long delivery lead times, the often limited availability of transport for economically sized shipments, and currency restrictions The traditional response to such risk has been advance purchases.

Holding large amounts of inventory can be quite expensive, though.

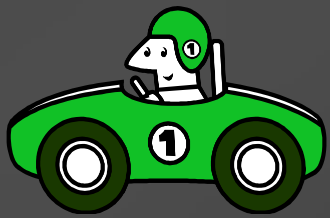
In fact, the high cost of inventory stockpiling – including financing, insurance, storage, and obsolescence – has led many companies to identify low inventories with effective management.

INVENTORY STOCKPILING…..

- For example, "in Singapore possible curtailment in shipments of air conditioners led to such heavy advance ordering that the next two years the market was completely saturated because the warehouses were full of air conditioners. "
- Such an asymmetrical reward structure will distort the trade–off involved.

- It is obvious that the probability of disruption increases or as holding cost go down, more inventories should be ordered. Similarly, if the cost of a stock-out rises or if future supplies are expected to be more expensive, it will pay to stockpile additional inventory. Conversely, if these parameters move in opposite direction, fewer inventories should be stockpiled.

CONCLUSION



The major reason why inflation, currency changes and supply disruptions generally cause more concern in the multinational rather than the domestic firm is that multinationals are often restricted in their ability to deal with these problems because of financial market constraints or import control.

Thus working capital management play a vital role in MNCs.

"MONEY IS A WONDERFUL THING,BUT IT IS POSSIBLE TO PAY TOO HIGH A PRICE FOR IT."