



## CHAPTER 3

# THE BUSINESS ENVIRONMENT

As *The Business Policy Game* begins, you and your fellow team members are assuming the management of a simulated corporation that has been in existence for a number of years. Your firm's principal business activities are the production and distribution of an unnamed product that has the general marketing characteristics of a consumer durable good. The product's characteristics represent a composite of the characteristics of a number of products in the "business world" and thus cannot be accurately described by any unique existing product. The same product type is also manufactured and sold by other firms in direct competition with your firm. However, these products are differentiated in the minds of consumers.

The firms in your industry have surprisingly similar histories during past years. An examination of the historical data and financial statements presented in Appendix C will highlight the fact that there has been little, if any, difference among the operations of the various companies in your industry. Each company has maintained substantially the same level of sales; production levels for each company have been about the same; the pattern of financing has been similar, and profits have differed by a relatively small amount. One almost could guess that the various companies have been operating under the same management, unless collusion were present. This is an unlikely assumption in view of the antitrust laws that exist in our simulated world.

As the simulation develops, you may be sure that the different operating strategies that will be developed by your firm and its competitors will cause a divergence among the production, sales, financing, and profit performance of the various competing companies. Furthermore, as you and your competitors place new models on the market, you will find that there is a difference between the way your product is received by the market and the way in which your competitors' products are received. Consumers will demonstrate brand preference. You may prefer to think of the differences as akin to the differences between a new IBM and a new Compaq computer or perhaps even an Apple Macintosh.

The firms in your industry are conducting business in two simulated environments, Merica and Sereno. Merica is a North America country and Sereno is a Latin America country. A short background discussion of each follows.

### Merica

Merica is located on the North American continent in the Western Hemisphere. Its land area stretches approximately 9.4 million square kilometers. Nearly every type of climate can be found in Merica from tropical to polar. Deserts and major mountain ranges are found in the West. While the West is rather arid, with the exception of the Northwest, the East and most of the Midwest receives sufficient rainfall to support farming. Farming in the west generally requires irrigation. As you would expect, temperatures vary widely over the country.

Merica's population is approaching 260 million people. More than half of the people live in the South and West. Approximately twenty-five percent live in the Midwest and the remainder live in the Northeast. More than three quarters of the population live in cities, towns and suburbs. The capital city of Columbia is located on the east coast. The growth in population is low with approximately 25 percent of the growth occurring through immigration.

Merica is a leading industrialized country. Its work force is highly skilled and mobile. The citizens generally enjoy a high standard of living. Median family income is over \$35,000 per year, and professional and middle-management salaries begin around \$30,000 and climb rapidly upward. Eighty-nine percent of the households own a motor vehicle.

The common language in Merica is English. Many other languages are spoken in various ethnic areas, but English is the common language of communication. English dialects vary in different parts of the country, but each is generally understood throughout the country. Primary and secondary education are provided free of charge by local school districts within each state. Most states require children to attend school until they reach their 16th birthday. Nearly half of the graduates of high schools enroll in college. Approximately 25 percent of the population is college educated.

### Exporting

Merica offers tax and nontax incentives for the export of goods produced in the country. Unfortunately, your firm is not able to take advantage of tax incentives due to the special nature of its products. Nontax benefits of interest to exporters include special financing set up through export-import banks, credit programs and financing assistance programs for foreign buyers and promotion of export programs both within Merica and in foreign markets.

## Importing

Consumer durables imported to Merica are subject to duty based upon their classification in the country's import tariff schedules. The duty rate depends upon the country of origin and the type of product, as well as numerous other factors. Certain countries are given preferential rates due to trade agreements. Most products are subject to most-favored-nation or general rates of duty. However, imports from some countries are subjected to the highest rates when normal trading relations have not been developed.

A product's tariff classification is based primarily upon the product's description. The product's value is based upon the transaction value which includes the actual sales price plus certain commissions and other expenses. Transaction values may be documented using commercial invoices, country of origin certificates, bills of lading and foreign assembly declarations.

According to tariff agreements, the duty rate for your company's durable good is 0 percent. However, you will have to pay a user fee of 0.19 percent which is charged on all imports. If you ship by water, your goods will be subject to a 0.125 percent harbor maintenance fee.

When your imported goods arrive in Merica, you or your agent must file the required documents with the customs service. The documents include a bill of lading, airway bill or carrier's certificate, a commercial invoice showing the value of the shipment, an entry manifest and a packing list.

Local representation is not required, but licensed customs consultants are readily available through accounting firms and customs brokers. Sales agents may also be helpful in meeting the administrative requirements of the import process. Establishing a sales subsidiary causes no problems from a Merica customs standpoint. However, numerous other Merica government agencies should be consulted prior to establishing a sales subsidiary.

Your staff will have prepared the appropriate documents and cleared them with the Customs Service prior to the importation of goods. The processing and importing fees are not shown separately on your accounting reports, but you can safely assume they have been paid and included with other costs of purchase.

## Investing

Merica has no restrictions on foreign ownership of firms producing low cost consumer durables. There are no limits imposed on monetary exchange or the entry of foreign funds into the country. Both capital and profits may be repatriated as desired. Foreign firms are required to meet the same requirements as domestic firms when obtaining loans or funds from the capital markets. The federal government holds a neutral policy with respect to encouraging foreign investment.

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State and local governments follow quite a different course. They offer extensive incentives to attract foreign-owned plants to their area. Incentives are also provided for joint ventures and licensing arrangements with foreign investors. Their objective is to create jobs, reduce unemployment and welfare costs and to enlarge the tax base. Incentives are in the form of grants, such as tax breaks, direct loans and loan guarantees. Additional help may be provided in the form of recruiting and training services, plant location assistance, etc.

The country has a well-educated, skilled work force. Workers tend to be highly paid including substantial fringe benefits. The benefits are not required by law, but they are included in most union contracts and are generally provided in varying degrees by all employers. The benefits normally include health insurance, life insurance, sick pay and vacation time. Profit sharing and pension plans are commonly offered. Fringe benefits account for approximately 28 percent of total compensation. A 40-hour work week is common with overtime paid to industrial employees for time over 40 hours. Ten paid holidays normally are observed in all parts of the country. Two weeks of paid vacation are commonly provided for new employees with vacation time increasing with employee tenure to a maximum of four or six weeks. It is unlawful to discriminate on the basis of age, sex, religion, veteran status, handicap, national origin or race.

A social security program provides limited health and pension benefits for people aged 65 and over. Both employees and employers contribute 8 percent of the employee's pay to the program. An unemployment tax of 7 percent on the first \$7,000 of wages is also paid by the employer. In addition, employers contribute to state workers' compensation funds which provide benefits when employees are injured, contract a disease or die as a result of their employment. The requirements and contribution amounts differ by state. Labor costs represent a significant portion of total production costs in Merica. As a percentage, labor costs are among the highest in the industrialized world.

Federal taxes in Merica currently amount to 39 percent of corporate income. There is no value added tax in Merica nor is there a capital tax on corporations. Other taxes which are assumed by the simulation to be included in the stated level of costs include:

- Import and export taxes
- Payroll taxes, principally social security
- State and local taxes
- Taxes on real property

### Sereno

Sereno is a large country in Latin America. It covers approximately 1,800,000 square kilometers, almost one-fourth the size of Merica. The greater part of the country is on a high plateau. Almost half of the country is arid or semiarid. Rain generally falls between May and October with very little rain being received during the rest of the year. Temperatures are generally moderate most of the year. However, there are mountainous regions in the country which have quite different climates.

Sereno's population of approximately 80 million people is growing at the rate of 2.1 percent per year, one of the highest rates in the world. There has been a large shift in the population from rural to urban areas since 1940. Today more than 60 percent of the population lives in urban areas. The largest city is the capital city of San Jose which is located at 5,500 feet above sea level.

The distribution of wealth within the country is very uneven. At the higher income levels, which include upper and middle management, the standard of living is comparable to that found in industrialized countries. However, only about 20 percent of the population is wealthy enough to afford this type of lifestyle. Earnings for office, skilled, semiskilled and unskilled workers are substantially below those in industrialized countries. It should be noted that wages are rising, and these latter groups are becoming significant markets for low cost durable goods. They tend to be young and many have young families. One of the country's major problems is to find jobs for members of these groups which represent a large share of the rapidly increasing population.

A recent article in *Fortune* argues that people in developing countries tend to buy more durable goods than they would with the same income in a developed country. Products mentioned included TVs, refrigerators, etc. Thus you might estimate that between 50 to 75 percent of the population of Sereno would be financially able to purchase your product.

The national language of Sereno is Spanish. Education is provided free through six years of primary school and three years of secondary school. The government funds public universities, which provide an additional three years of pre-college education through preparatory schools. While all students have a right to attend school, many in the rural areas are not able to attend school on a regular basis. In recent decades, a major effort has been made to reduce illiteracy.

### Exporting

Both tax and nontax benefits are provided to encourage exports of locally produced goods from Sereno. Firms exporting from Sereno can claim a value added tax credit for all export sales. Nontax benefits include shipments being given top priority in customs clearance and special promotional assistance in Sereno and in foreign markets. An import drawback provision provides for a refund of import duties paid on imported merchandise that is later incorporated into exported goods.

### Importing

Sereno has no import restrictions on low-cost consumer durable goods. The country uses the Harmonized System for Merchandise Classification and Codification which makes classification of goods compatible with that of most of its trading partners. Merchandise is valued at its commercial invoice price in determining its dutiable value. Duties range from 0 to 20 percent,

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with most duties running between 0 to 10%. The duty rate for your company's durable goods is 0 percent.

Industry protectionism is gradually being phased out since Sereno joined GATT several years ago. Most imports of tangible items are subject to a value added tax at the same rate that applies to domestic sales. The documents required to import goods include the import declaration completed by a customs broker or forwarding agent, a detailed packing list and a commercial invoice showing all charges made by the seller in connection with the sale. The invoices must be stamped by the Sereno consul in the country from which the shipment is made. A customs services processing fee is payable with the import declaration.

Your staff will have prepared the appropriate documents and obtained consular approval for importing goods to Sereno. The customs service processing fees are not stated separately in your financial reports, but you can assume that they will have been taken care of and included with other costs of purchase.

Delivery of goods made to a customer within Sereno is subject to income and value added taxes. A local agent must be used to withdraw merchandise from a Sereno customhouse.

### Investing

Sereno allows up to 100 percent foreign ownership of consumer durable manufacturers. Foreign investment normally is made by establishing a Sereno corporation. Prior authorization by the Ministry of Foreign Affairs is required. The formation of a corporation with minority foreign ownership usually requires about three or four weeks. A majority ownership takes about twice as long. The cost is relatively minor. A notarized deed must be obtained which represents a combined charter and bylaws.

A Sereno subsidiary may pay dividends to its parent equal to the entire amount of current-quarter profits, with the following restrictions:

1. Twenty percent of the profits must be set aside in an equity reserve (part of retained earnings) until the reserve has accumulated to an amount at least equal to 50 percent of capital stock.
2. Dividends may only be paid if, after payment, there will be a minimum cash balance of one million pesos (held in Sereno banks).

The availability of local financing is very limited. It also is very expensive. Short-term commercial credit, when available, commands interest rates of approximately 30 to 40 percent per annum. There are no restrictions on repatriation of capital. However, foreign currency must be obtained in foreign currency markets. Sereno is not a low-tax country, and it offers no special tax treatment to foreign investors.



Skilled and managerial personnel are generally in short supply. However, trainable unskilled and semiskilled workers are readily available. Labor costs are low compared to developed countries, although they are rising. Labor unions are becoming widespread. Sereno labor law requires that all employers provide their employees with a minimum of training.

Minimum wages are established for separate regions of the country. The minimums are raised each calendar quarter to mirror closely the rate of inflation. The maximum work week is six eight-hour days for a total of 48 hours, although a 44 or even a 40 hour work week is not uncommon, particularly in offices. Double time must be paid for overtime (more than 40 hours per week). Triple pay is required for work on any of the seven legal holidays.

The social security program includes current medical expenses, workmen's compensation and old age and disability pensions, which cost employers from 14.6 to 20.9% of their employee's pay. In addition, a payroll tax of 5% is levied to cover a national low-cost housing program. Labor contracts often provide for additional benefits. Seniority premiums are paid to all workers who are fired, die or retire with at least 15 years of service. Under the Sereno constitution, it is unlawful to discriminate against an individual on the basis of race, religion or sex.

Employers must provide transportation for employees when a plant is located outside of an area served by reasonable public transportation. Many firms have established company-supported cafeterias which offer meals at reduced prices. Total fringe benefits, including benefits mandated by labor law, cost employers between 70 and 100 percent of base wages.

Taxes that must be paid in Sereno include:

Taxes on income—the general corporate rate is 39 percent of net income

Value added taxes—10 percent of net sales

Value added taxes are assessed against total sales. Since your company imports all of its merchandise or manufactures it from imported raw materials, there are no deductions. The amount of the tax is deductible for purposes of income tax assessment in Sereno. Income and value added taxes are calculated and reported separately in simulation reports. In addition, other taxes are assumed by the simulation model to be included in the stated level of costs:

Import & export taxes

Payroll taxes, principally social security

Local taxes

Taxes on real property

Taxes on salaries

Market information in Sereno is neither as abundant or as readily available as in industrialized countries.

### Economic Environment

The firms in your industry are conducting business in two simulated environments, Merica and Sereno. Merica represents a developed country, and Sereno represents a developing country. One of the environments is likely to be similar to the economy of your country during recent years. Because of this similarity, a knowledge of the characteristics of your nation's economy will enable your firm to make certain inferences about one of the simulated economic environments. Your country's gross domestic product (GDP) for example, has generally increased over time. However, unless your country is highly unusual, this growth has not been constant over time as indicated by the historical record. The GDP index, as well as other economic time-series indexes, has fluctuated considerably.

The current-dollar and current-peso GDP indexes for *The Business Policy Game* are reported in the Quarterly Industry Report, **unadjusted** for inflation. In addition, a four-quarter forecast of real GDP, adjusted for changes in the Consumer Price Index in each country, is purchased every three months by your marketing department and reported each quarter in the Quarterly Industry Report. A four-quarter forecast of expected exchange rates is included in the forecast.

REAL GROSS DOMESTIC PRODUCT FORECAST								
	Actual Values, Last 4 Quarters				Forecast Values, Next 4 Quarters			
	Qtr 5	Qtr 6	Qtr 7	Qtr 8	Qtr 9	Qtr 10	Qtr 11	Qtr 12
Merica	102.17	102.66	100.93	99.90	99.57	97.94	98.79	94.46
Sereno	94.87	97.05	98.20	100.00	104.76	107.08	109.14	115.87
EXCHANGE RATE FORECAST								
Sereno	5.99	5.97	5.97	6.00	6.09	6.02	6.08	6.18

As you might expect, the quality of the forecast is best for the quarter immediately ahead, with a wider range of possible values as time becomes more distant. These are, in fact, excellent forecasts and may be relied upon as the best data available at the time.

Other economic data also are included in *The Business Policy Game* reports. The impact of price level changes is shown by the Consumer Price Index (CPI), also reported for each country quarterly. The Stock Market Index, reported only for Merica, may be considered as roughly comparable to the Dow Jones Industrial Average, the Tokyo Stock Exchange Nikkei 225 average, the Frankfurt Stock Exchange FAZ index or the Sydney Stock Exchange All Ordinaries index. Interest rates in the simulation will rise and fall in much the same manner as rates in developed countries during the last several years. You will find that knowledge of these economic times series data is helpful as you forecast future levels of simulated economic activity. Suggestions for using techniques to forecast future economic activity are found in Chapter 6.

FINANCIAL MARKET DATA						
	Merica	Sereno	---Credit Rating---			
GDP Index (Nominal)	99.90	100.00	Interest Rates:	No. 1	No. 2	No. 3
Consumer Price Index	100.00	100.00	Long-Term	8.40	9.10	10.60
Stock Market Index	100.00		Short-Term	11.00	11.20	12.30
3-Month Time CD Rate	9.50					

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### Inflation Adjustments

All prices that your firm must pay for goods and services are subject to inflation. Inflation varies over time and is reported via the CPI for each country. It is important to note that inflation rates vary by country. Most costs and expenses shown in this manual are those facing your firm during Year 3, Quarter 1 as you begin the competition. As the competition continues, you will need to estimate changes in costs during subsequent quarters as price levels change.

To calculate the cost in any subsequent quarter, multiply the cost given for Year 3, Quarter 1 by an inflation multiplier. After you have received the reports for the quarter previous to the one for which you are estimating costs, divide the country's CPI in that quarter by the CPI in the same country for Year 2, Quarter 4 (or estimate the previous quarter's CPI if the reports are not available yet). The resulting value is the inflation multiplier to use. Prices are always adjusted using the previous quarter's inflation rate as we do not know next quarter's inflation rate until the quarter is over.

For example, the Year 3, Quarter 1 cost of a 2-line plant in Sereno is given in Chapter 8 as Ps 7,200,000. If the reported (or estimated) CPI in Sereno for Year 4, Quarter 3 is 145 and the CPI in Sereno for Year 2, Quarter 4 is 100, the inflation multiplier is calculated as

$$145 \div 100 = 1.45$$

Then multiplying the Year 3, Quarter 1 price by 1.45 will result in an estimated peso cost during Year 4, Quarter 4 of

$$\text{Ps } 7,200,000 \times 1.45 = \text{Ps } 10,440,000$$

Similarly, if the Merica CPI in the same quarter turns out to be 124 (a much lower rate of inflation), the price of a 2-line plant in Merica will be

$$\text{\$}1,200,000 \times 1.24 = \text{\$}1,488,000$$

Notice that the cost of building in each area is **not** affected by the then-current exchange rate. Costs in each country are determined by the different way that prices behave in Sereno and Merica. But because consolidated financial statements are prepared using dollars, the currency of the parent corporation's country, the costs (and revenues) will be stated in dollars, translated at the exchange rate of the quarter in which the financial statements are prepared.

### Exchange Rate Calculations

Continuing the example discussed under "Inflation Adjustments" above, you need to translate the Sereno plant cost to dollars to determine how the cost of the plant will be reported in your consolidated financial statements. We will have to estimate this amount using the forecast of exchange rates in the Quarterly Industry Report for Year 4, Quarter 3. If the forecast for Year 4,

Quarter 4 turns out to be 25.20 pesos to the dollar, the translated value of the cost in dollars can be estimated as \$414,000:

$$\text{Ps } 10,440,000 \div 25.20 = \$414,286$$

#### IMPORTANT NOTE

This is not the same amount that it would cost to build a similar plant in Merica in the same quarter. The relationship between costs in the two countries will change over time because of the different rates of inflation and the different rates of change in the exchange rate. This example shows an exaggerated difference in the rates and should not be taken as a typical case—only one that is possible. But it does illustrate the way the relationship may change dramatically over time.

### Market Areas

There are four market areas in *The Business Policy Game*. Three are located in Merica, and one is in Sereno. For purposes of identification, numerical designations have been given to each Merica area. The Eastern portion of Merica is known as Area 1, the Southern portion as Area 2 and the Western portion as Area 3. Sereno is the fourth market area. The level of economic activity in each of these areas is growing although the rate of growth differs between the two countries.

The numerical designations for the first three market areas correspond to the home areas of the companies that are competing in the simulation. At the end of Year 2 (when your management team takes over your firm), each company has one production plant which is located in its home area. All home areas are located in Merica. Company 1 has a production plant located in its home area, Area 1. Company 2 is located in Area 2 and Company 3 in Area 3. If more than three teams are competing, Company 4 has Area 1 for its home area along with Company 1. Company 5 is located in Area 2, Company 6 is located in Area 3, Company 7 is in Area 1 and Company 8 is in Area 2. As yet, no company has located any production facilities in Sereno, but all have been exporting from their Merica manufacturing plants to Sereno. The administrator of the simulation will assign team numbers to each company and will let you know how many companies are competing.

### Distribution, Research and Development, Production

While each company has been producing goods only in its home area, each firm has sales offices and an operational sales force in all four areas and has been marketing its product actively in each market area. During the fourth quarter of Year 2, each company posted a wholesale price of \$10.00 per unit in market areas 1, 2 and 3 and Ps 75 in Sereno. During that quarter, selling and distribution expenses (including advertising, salespeoples' compensation, transportation, administration and depreciation) averaged approximately \$2.12 per unit sold in Merica and about

Ps 13 in Sereno. Transportation costs vary according to the distance of the shipment. Details on marketing and distribution are described in detail in Chapter 5.

Research and development outlays have been restricted somewhat during the past year. The director of research and development, however, has been very optimistic. She recently reported to the board of directors that she believes the new model on which her staff currently is working should significantly enhance sales and, perhaps, bring substantial savings in production costs. The former management had threatened her department with a substantial budget cut. She has requested that you continue her present budget and gradually increase the amount allocated for research and development expenditures. She will then be able to retain and expand her competent professional staff and continue research efforts, which she believes will bear fruit within a relatively short period of time—perhaps within a few months, but most likely by the end of Year 3. See Chapter 7 for additional details about research and development.

In order to match production output more closely with sales volume, the former management of your company deactivated two of its production lines in your home area about three years ago (prior to the period shown in the historical data that are appended). Recent sales trends have been sharply upward, however, and both of these lines were reactivated to increase production during Year 1. The plant in your home area now has six production lines available, each with a capacity of 52,000 units per quarter under normal operating circumstances. Production costs at present are about \$4.67 per unit. Details of costs and production capacity adjustments are described in Chapters 7 and 8.

Other operating expenses, for which plans must be made, include inventory storage costs, training expenses, executive compensation and interest on bonds and loans. The Merica and Sereno governments tax corporate income at 39 percent of net profits. In addition, Sereno has a 10 percent value added tax on goods sold within the country. The income tax laws of both countries contain no provisions for carry-back of losses to reduce tax liabilities in prior periods. They may, however, be carried forward indefinitely to reduce tax liabilities in the future.

Each company has issued 6 million shares of capital stock, which is traded in the over-the-counter market. The bid price for each company's stock, along with earnings and dividends per share, is quoted regularly in the Quarterly Industry Report. None of the firms in the simulation, however, has yet declared a dividend. Chapter 9 includes additional details about the financial environment.

### Reports

Computer-generated reports will be provided to your management team following each quarter of simulated operations. These may be delivered to your team by the simulation administrator, or they may be placed in files on your Decision/Data Disk. They may be viewed or printed using the BPG program. The current reports are available until the next decision has been run. The new report files to be received each quarter will overwrite and replace the old report files. Thus, if you want to keep permanent records of the quarterly reports, you should either print the reports, or rename the files and transfer them to a storage disk. The reports are in text format and

may be read by the BPG Report Viewer (see below) or any program, such as a word processor, that can read text files.

*The Business Policy Game* program provides a Report Viewer and Notepad. If the report files have not been renamed, reports are easily accessible from the Reports menu. Press <alt, R> to view the list of available reports. Press <alt, H> to view the Help menu. To open a renamed file, Press <alt, F> for the File menu. Then "O" to open a file. To rename a file that is displayed on the screen and save it in another directory, choose Save As... from the File menu.

The reports for the fourth quarter of Year 2 are reproduced in Appendix C, along with a summary of data from Years 1 and 2. Three types of reports may be provided each quarter:

1. Quarterly reports about individual companies, distributed confidentially only to the company concerned.
  - a. Financial reports, including
    - (1) Consolidated Income Statement
    - (2) Consolidated Cash Flow Analysis
    - (3) Consolidated Balance Sheet
  - b. Operating Information Report, including
    - (1) Production Cost Analysis
    - (2) Output, Inventory and Sales Analysis
    - (3) Production Capacity Status
    - (4) Standard Costs per Unit
    - (5) Sales Force Analysis
    - (6) Current Period Decision Summary
2. Reports about competitors that are distributed to each company in the simulation.
  - a. Quarterly Industry Report, providing information about each competitor of the type that could be gleaned from industry sources, quarterly financial statements and public reports. Financial Market data, GDP and exchange rate forecasts also are included.
  - b. Annual Industry Report, distributed in the fourth quarter of each year, contains annual data on operations of competitors. This information is the type that could be obtained from corporate annual reports.
  - c. Historical Data for Years 1 and 2, distributed only in Year 2, Quarter 4, includes a summary of pertinent information for the last eight quarters leading up to the beginning of the competition.

3. Optional supplementary reports that may be distributed by the simulation administrator:
  - a. Your simulation administrator has the option of distributing evaluation and scoring reports showing the relative performance of the teams in your industry world on a variety of evaluation measures.
  - b. Vignettes that develop situations and problems outside the scope of the computer model, and that may require a response from your team or a discussion among class members.

Data that are reported in the various reports are described in subsequent chapters.