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Gio Wiederhold

Valuing Intellectual Capital

Multinationals and Taxhavens

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Valuing Intellectual Capital

Multinationals and Taxhavens

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This work is dedicated to the many individuals who have to make sense out of laws, rules, regulations, and conventions covering taxation, and try to generate outcomes that are fair to the enterprises that pay taxes and to the governments that rely on tax revenues.

Preface

Intellectual capital covers the capability of talented employees in modern and innovative enterprises and the intellectual property they generate. Exploitation of these intellectual assets generates the income that businesses need to function and grow. Today, intellectual capital contributes more to modern industry than financial capital does, but its influence on the national economy and global economy is not well understood, and not at all quantified. Rather than discussing intellectual capital in a broad and philosophical way, this book focuses narrowly on its use in multinational corporations.

Valuing intellectual capital properly is a prerequisite for formulating industrial policies, considering how and where jobs may be created, and dealing with issues that are caused when companies shift valuable intangible assets overseas. The invisibility of intellectual capital makes it easy to ignore the driver of modern growth and focus narrowly on financial factors. Once rights to intellectual assets are part of corporate globalization, they are no longer subject to national laws and regulations. Taxhavens have been willing collaborators, enabling multinational corporations to reduce their worldwide taxes greatly, while benefiting from educational and transportation infrastructures paid for by citizens at their home locations. Many offshore countries also provide incentives to grow and create jobs, but are not able to collect taxes subsequently because the earnings wind up in other remote taxhavens.

Tax avoidance is perfectly legal and beneficial for corporations, but when taken to extremes, it has serious consequences for society—both in the USA and in the foreign countries where the companies operate [Johnston:03]. This book explains in clear, understandable terms how legal means for minimizing corporate taxes greatly reduce the government revenue needed for education and public services while they increase the global wealth of corporations and their owners.

Intellectual Capital and Jobs

The public, in the USA and abroad, is affected by the perilous state of the worldwide economy. One concern is the shift of jobs to remote locations [AsprayVM:06]. Politicians take advantage of those concerns by proposing new systems for taxation, which are in turn attacked by their colleagues as hurting the poor, or the middle class, or the rich, or small businesses, or the corporations that are supposed to create jobs. Hosts on TV shows comment on the benefits or faults of the schemes being proposed, but convey little understanding. They invite wise commentators to explain complex alternatives in 5 minute sound bites.

The connection between corporate growth and jobs is a common theme. Helping corporations is supposed to create more jobs. Reducing corporate taxes is supposed to create more jobs. Those workers will buy more goods, causing businesses to prosper. Once these relationship issues are put on a global platform a disconnect becomes clear. Multinationals already enjoy low taxes by using taxhavens. They will create jobs where it is most profitable. Reducing taxes in one locality will help the corporation but not the public in that location. Prices of goods will be low if they are allocated to locations where taxes are low.

Corporate Tax Avoidance

Corporate profits are greatly reduced by paying taxes on their earnings. For multinational corporations taxation is an international issue [Doernberg:08]. Conflicts are created when taxation differs in domestic and global contexts [Sullivan:11]. There will always be some large and small countries that can distort an acceptable economic balance by offering freedom or exemption from taxation as inducements to powerful companies. Waiting for global agreements to be signed and faithfully executed by all parties is not a viable option [JollyK:12].

Tax avoidance by corporations affects nations much more than tax avoidance by rich individuals and celebrities. Multinationals employ more than 14 % of the total US workforce, most in well-paying jobs. Corporate accounts represent the majority of capital sheltered in offshore taxhavens. That capital is not just financial; it includes rights to intellectual capital, the basis for profits and growth in modern technological industries [Sveiby:97].

Although methods used by multinational corporations to avoid taxes are made visible in this book, I offer no recipes for corporate tax avoidance. Plenty of consulting firms provide comprehensive advice and support to corporations wanting to reduce their taxes. Their advice is not broadcast to the general public, and the corporations that follow their consultants' advice are not motivated to inform their shareholders or their employees of any specifics.

Audience

This work is intended to be the source for informed discussions on issues of offshoring, international competitiveness, job creation, and changes to tax policies in the global economy. I will show how offshore investments are distorted by US and international taxation policies. A solid understanding can provide a balance of what is rational and achievable. My intent is not to make the reader mad about what is happening. Instead my focus is on the effects of corporate decisions on governmental tax revenues. Whether those governments spend their income wisely or not is not assessed.

This book contains the background information needed by professionals who want to understand the processes of creating value in modern enterprises and the attendant problems. The focus is on multinational corporations and their intellectual capital because of their importance in the global economy. The flexibility of intellectual capital assignments is poorly understood and ignored by experts using outdated concepts from the past when assets and companies had known locations.

Without being able to assign a value to intellectual capital, reformers have little leverage. Today, intellectual capital generates most corporate profits. Businesses depend on creative workers and smart tools. An emphasis on improving education shows awareness of the need to have a capable workforce that can create and maintain attractive and competitive products. The path from creativity to profits and wealth has not been elucidated. Corporations and their owners manage most of the flows, and their objectives may differ from what the workers and their friends expect. Paying little tax by moving intellectual and financial assets offshore increases the value of corporations, but leaves governments and the services the public expects with inadequate resources.

Today, politicians and the public are subjected to piecemeal discussions of the existing tax code and proposed improvements, interwoven with promises of goodies that taxes will pay for and growth that will follow tax reductions. Articles covering globalization and tax issues in newspapers and business magazines are rarely comprehensive and at times naïve.

Presentation

To describe the process, I have created a model multinational company; I call it MNC. MNC represents structures and features found in actual businesses, but having a model avoids dealing with the excruciating detail and confidential facts of specific cases.

MNC, like many of its high-tech peers, resides in California and moves a basket of operations and financial functions offshore. As it grows, it establishes subsidiary operations in Malaysia and India. Two shell companies, one in Palm Island and the other in The Netherlands, manage and hold rights to financial capital and intellectual capital.

MNC does nothing illegal or explicitly immoral. Still, over a period of a dozen years MNC manages to greatly reduce its taxes and accumulate a trove of capital that is best invested in offshore growth. Because MNC is a US-based company, my computations follow US laws and regulations. Substantially identical methods are used by most US high-technology companies, although their structures will be much more complex than those of MNC [GOA:09]. A few public reports that document specific instances of questionable corporate tax payments are cited. Although I present interactions with other countries, I leave implications for non-US situations to other authors. The in-depth presentation of MNC's growth over 25 years documents the interplay of opportunities enabled by well-intentioned policies that enable extreme corporate tax avoidance. In Chap. 9 I can show that MNC is a valid model for the US corporate economy in general and US multinationals specifically. Although the modeled MNC is realistic, its processes are much easier to follow than the convoluted actions of its real-world peers.

The contents, layout, and style chosen for this book are designed for a broad variety of readers. The essence of the material is presented in ten chapters without distracting detail. The technical alternatives of IP valuation are concentrated in Chap. 5. Throughout, references to material in the appendices allow readers who wish to dig deeper to identify specific items of controversy and assess their relative significance in tax avoidance. If readers feel that changes in policy are needed, the factors and choices that appear throughout this book can help determine what is fair, reasonable, and simple enough to apply in practice.

My final recommendation may be surprising, but should make sense by the time the reader has reached that final chapter. That drastic recommendation, R20, supports recent calls to:

Abolish Corporate Taxation

This recommendation will engender interesting discussions among readers. My support for this change has no ideological basis. It surfaced only as I was writing this book, sorting through the many paths to tax avoidance I have encountered. In the end, tax authorities anywhere are unable to deal effectively with the problems presented. As I dissected the global situation and subsequent problems, it became clear that incremental repairs to the US tax system, by enforcing US laws and regulations globally and patching specific loopholes, will not work.

Chapter Organization

This book covers comprehensively the conditions and methods that multinational corporations employ to avoid taxation. The initial eight chapters provide the foundation to discuss their effect on national economies here and abroad.

Chapter 1 is a brief introduction of the corporate cycle of investing in intellectual capital, creating products, earning income, and using the profits for growth.

Chapter 2 provides a detailed example of how intellectual capital is created and exploited; the specific issues will be dealt with one after another.

Chapter 3 defines precisely the categories of intellectual capital.

Chapter 4 deals with international transfers of corporate assets, as rights to IP.

Chapter 5 details the methods used to assign a monetary value to IP.

Chapter 6 presents the capabilities of a variety of taxhavens.

Chapter 7 applies the technical material of Chaps. 3–6 to MNC's taxes.

Chapter 8 shows why it is difficult for the IRS to deal with the issues raised.

Chapter 9 matches MNC to US corporations and multinationals and allows projection of corporate initiatives in the future.

Chapter 10 lists a score of recommendations, from the obvious to the radical, all intended to make taxation fair and supportive of economic growth. The recommendations I make have been expressed by others, but rarely considered in the setting that modern and global industry presents. Even Recommendation 20, to abolish both corporate taxation and the concessions in the tax code to compensate for double taxation, is still relatively simple.

- Appendix A shows MNC's financial statements.
- Appendix B presents some relevant sections of the tax code. Entries are cited as [B.section.subsection.legal-parapgraphs].
- Appendix C covers payment for intellectual capital by royalties.
- The Glossary, Appendix D, presents extensive definitions to aid readers with diverse backgrounds.
- Appendix E deals with tax expenditures, the credits, exemptions, and deductions that reduce corporate taxes significantly.
- Appendix F presents all substantiating formulas and their justifications. The separation keeps the text easy to read. The formulas are referred to as [F chapter. formula number]. The 14 % fraction of US employment by US multinationals shown in this preface is computed per [F0.1].

An extensive Reference section allows the reader to verify issues and follow-up. The references cover a wide range of related topics, such as corporate economics, technology, globalization, taxation and tax avoidance, and the effects of national laws and regulations on all of those issues.

Stanford, CA, USA Gio Wiederhold

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Any errors and questionable opinions in this book are, of course, solely my responsibility, but I cannot assume the responsibility for business decisions made based on the use of the presented material.

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Chapter 1
International Corporations and Taxes

International trade has more than doubled over the last 25 years and continues to grow [HinesS:09]. More than 70 % of US international trade is now in the hands of multinational corporations, companies that have operations and legal residences in more than one country [Clausing:06]. More than half of the trade of those multinational corporations, and about half of all US international trade, is shipped among their international divisions [Economist:11M]. Intra-firm trading is not as visible as external sales. Trading among corporate divisions has given multinational companies ample opportunities to minimize taxes by adjusting prices for transfers of their goods [Kopits:76]. What's more, establishing fair transfer prices is especially difficult when dealing with intangible goods and assets [Harrison:03]. Those intangible assets are the principal component of today's knowledge-based industries [Nakamura:99].

Tax avoidance is beneficial to a company competing in world markets. In fact, Wall Street investors applaud companies whenever they achieve a lower tax rate. In the USA and other developed nations, paying taxes at the prescribed rates could reduce the profits of a company by more than one third. The more a firm spends on taxes, the less money it has available for shareholder dividends and investments for future growth.

Companies that manage to pay little or no tax by using tax avoidance methods become more competitive than companies that pay higher taxes. Many of the tax avoidance methods described in this book are based on laws and regulations that are intended to make US companies more competitive abroad [GuptaWS:09]. Once those methods are in place, companies can easily exploit them to cover more than what US legislators originally foresaw. Poor valuation of offshored corporate intellectual capital enables a high share of tax avoidance by modern industry.

As multinationals have become quite competent in avoiding taxes where they operate, companies that remain local—and local citizens—have to bear heavier tax burdens for public services. Raising tax rates is politically unpopular, so balancing national budgets with less tax income means curtailing government services to all residents. Yet the services that governments provide from their tax income do not

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differentiate among their residents, so that companies engaging in substantial tax avoidance still enjoy the same level of benefits of government investments in infrastructure, national defense, and education.

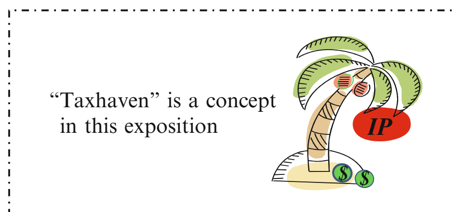
Our model California-based multinational corporation, MNC, illustrates actual tax avoidance methods. It has a much simpler structure than we find in actual situations, but is not too simple. MNC has just five divisions in five countries, whereas having 50 divisions in a dozen locations is typical for a mature multinational corporation. The offshore operational companies set up by MNC are considered to be Controlled Foreign Corporations (CFCs).

MNC, a typical High-technology manufacturing company, has two offshore operating CFCs, one in Malaysia and one in India. MNC's CFC in Johor Baru, Malaysia, called MNC JB, focuses on manufacturing an electronic gadget, the Maniac, designed by MNC in California. The CFC in India, MNC MY in Mysore, helps develop the software embedded in MNC's Maniacs.

In most multinational companies, product creation and manufacturing are split among local and offshore divisions according to local competencies [WGN:10]. There will also be offshore divisions established primarily for tax avoidance. MNC has two of those, CONCH in Palm Island and CAAS in The Netherlands. (None of these names refer to an actual company.)

Just like most large US corporations, MNC employs a Controlled Foreign Holding company (CFH), where it can park assets and shelter them for the long term. Such holdings are typically located in "taxhavens" [Economist:13]. Section 6.2 describes CFH operations. Our MNC has only one CFH, CONCH. MNC also has established a Controlled Financial Intermediary company (CFI), CAAS, a conduit to move financial assets rapidly and undetected among MNC's locales.

Financial advice and services to MNC are provided by an external consulting firm, Associated Tax Advisers (ATA).



The development of those divisions of MNC is covered in Chap. 2, but their relationships are already sketched in Fig. 1.1.

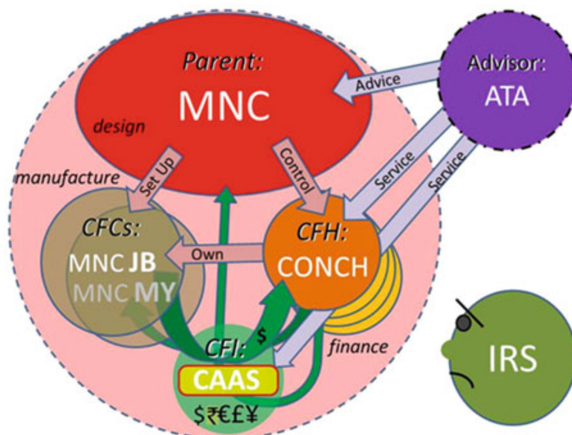


Fig. 1.1 Business divisions of MNC

MNC	The parent company in the USA, designs and improves Maniacs
MNC JB	The manufacturer of Maniacs in Malaysia according to MNC's specifications
MNC MY	The software division in India
CONCH	The taxhaven entity that holds financial and intellectual capital and formally controls all offshore sales
CAAS	The conduit company that shuffles funds among MNC's offshore divisions
ATA	The consulting firm that provides advice and services to MNC
IRS	The tax authorities that have to understand what's going on

It is clear that most of the corporate complexity is due to the financial arrangements of MNC.

1.1 Intellectual Capital

High-tech companies depend on intellectual efforts for making valuable products [Sveiby:97]. A business generates income and profits through exploitation of its capital assets by its workforce. Assets can be tangible or intangible. Intangible assets (formally, items we cannot touch) are products of the mind, ranging from inventions to customer lists and trademarks. Intangible assets complement and can dominate a company's tangible assets, such as machines, tools, buildings, and cash [Hulten:06].

Owned assets become property. When ownership can be asserted over intangible assets, they become "intangible property"; an alternate term focusing on the origin of the assets owned is "intellectual property." Both terms are abbreviated as IP, and often the distinction can be ignored. In Chap. 3 the terms and the components of IP are defined in detail.

Table 1.1 Industry sectors that depend on IP

Industry category	Specific issues in international trade	IP characteristic
Electronic consumer products	Manufacturing is mainly assembling parts from Original Equipment Manufacturers (OEMs), often offshore	Assembly know-how is also moving offshore
OEMs making electronic parts and assemblies	Substantial manufacturing is offshore; output is shipped to offshore product manufacturers	Product and IP moves unseen among sites outside the USA
Software product producers	Research and Development is done at multiple sites. R&D is intense, but 80 % of R&D is for improved versions; the manufacturing cost is negligible	Product valuation is arduous, but essential for export as all profits are due to IP
Pharmaceutical companies	Research and Development costs are very high compared to manufacturing costs	There is a long delay before IP generates profits
Financial institutions	Services depend on internal software, employed at worldwide sites, but the contribution of that shared software is ignored in most analyses	Profits are generated by interaction of people and software
Service organizations	Product is not formally protected	Profit is generated indirectly
Consulting firms	The assets are hard to quantify and localize. Know-how is of value	Internal IP is not marketable
Automobile manufacturers	Internal R&D contribution is low per unit sold. OEM suppliers do their own	Costs are visible

The workforce and the IP together make up the “intellectual capital” of a business. In modern businesses they dominate the generation of income. MNC requires little equipment. Rights to intellectual capital can be traded among partners for mutual benefit.

The business scenarios within this book are applicable to industries in any high-tech sector. Whether they specialize in biotechnology or consumer electronics, companies in the real-world benefit from tax avoidance measures. Firms in a wide range of industry sectors practice offshoring. Tax avoidance is easier when the value of their products is based largely on intellectual capital. Consumer product manufacturing companies tend to rely on other companies for components that embody much technical IP, adding valuable integration and marketing competence. In service-oriented companies, the human intellectual capital is crucial. The final entry in Table 1.1, an industry relying much less on IP, provides a contrast.

The common term “IP” is used broadly in this introductory chapter. The focus is on technical IP, but trademarks have valuable IP as well. Chapter 3 categorizes IP into a dozen major types.

1.2 Routine and Nonroutine Earnings

Selling commodity products earns a company what economists refer to as "routine profits." An analysis of nearly 13,000 companies from 1994 to 2000 showed that routine earnings' margins before taxes ranged from 2 to 10 % of sales [HandL:03]. That result comes from formula [F1.1].

Earnings due to IP are referred to as "nonroutine profits." Most earnings in seven of the eight industries shown in Table 1.1 are due to their IP. A company with much IP, a knowledge-based company—if well run—can be very profitable. The average total earnings margin was 25 % of sales for companies that had invested in R&D and advertising [HandL:03]. The earnings margins for successful high-tech firms are much higher than 25 %, but are hard to validate because of poor accounting for expenses associated with generating IP [F1.2].

Nonroutine earnings sustain modern economies through a cycle of public investment in infrastructure and education, and private investment in corporate innovation. MNC's spending on its intellectual capital, namely its staff, R&D, marketing, and their integration, produces the unique product, the Maniac, with a functionality that is highly valued by MNC's customers.

Investing corporate earnings in R&D and advertising creates IP and fosters future corporate growth. The annual growth of companies that can exploit IP averaged 3.4 % versus 0.4 % for the median of S&P companies [Kao:07]. Corporations can grow locally or offshore. Where in the world corporate growth will occur in the future is affected by national and international tax policies. Those issues are addressed in the final chapters of this book.

MNC is an innovative corporation. It is able to earn a high margin on sales of its products because of the intellectual assets it possesses. The two main types of MNC's intellectual assets are the specific competencies of MNC's workforce and its intellectual property (IP), as sketched in Fig. 1.2. The workforce includes MNC's managers, designers, engineers, and marketing staff. MNC's IP are assets that it has legally protected by patents, copyrights, trademark registrations, and by keeping trade secrets. Without specialized competence, a manufacturing company would be able to produce only commodity products. MNC's high-value products earn significantly higher margins, due to nonroutine earnings from its revenues, than commodity products would earn. MNC is characteristic of many successful businesses in the modern world [USCoC:11]. Already in 1998—the dawn of the Information Age—the intangible assets of the S&P 500 made up 85 % of the companies' value [Daum:01].

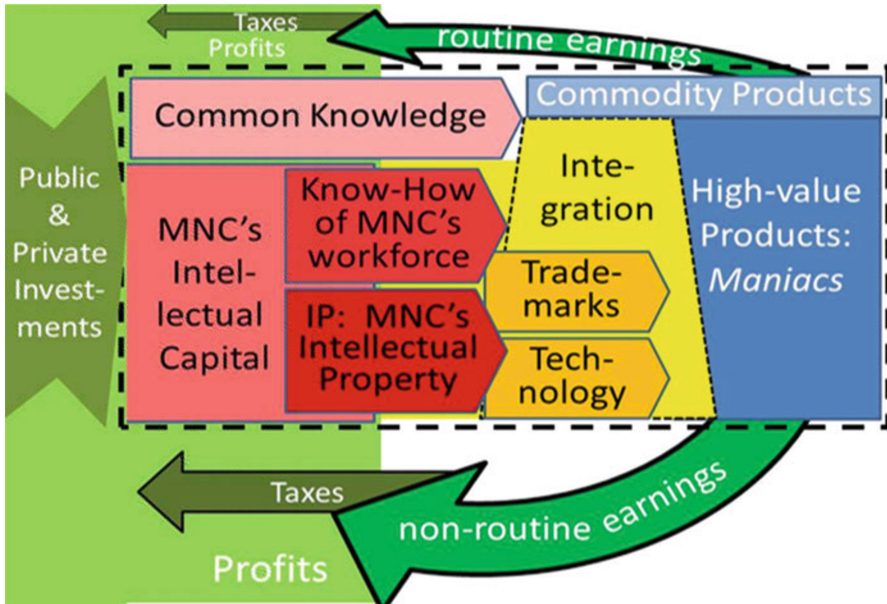


Fig. 1.2 The investment and product cycle of MNC

1.3 Tax Avoidance

Larger companies in the categories shown in Table 1.1 are by nature global and must deal with many taxing jurisdictions. How and where multinationals choose to set up their divisions directly affects their tax rates. IP and the rights to IP are easily moved across international borders, making differences of taxation a consideration. Operating in multiple countries makes tax avoidance harder to understand and detect. Individuals are expected to have one domicile, but businesses can have a legal presence in multiple locales and are more difficult to scrutinize [UScensus:10]. The complexity of international IP transfers makes it easy to move from tax avoidance into tax evasion [Browning:10].

Unless MNC takes advantage of tax-avoidance strategies, it faces taxes on all earnings, both routine and nonroutine. The funds remaining after taxes are paid are available to improve and develop further high-tech products. The taxes collected allow the governments to provide services to the general public and to MNC. A well-functioning public infrastructure keeps MNC effective and operating in a stable environment. A good education system provides the common knowledge MNC's employees need. All of these public contributions help MNC to prosper and grow.

1.4 Summary

Companies that operate internationally can derive many benefits from having distinct, controlled subsidiaries in multiple countries. Such multinational corporations take advantage of differing resources, laws, tax regulations, and enforcement practices in the countries where their divisions establish domicile.

Shifting funds and intangible assets among their divisions is nearly invisible. Most tax avoidance by multinational corporations involves transfers of rights to IP among corporate divisions to benefit from differences in the laws, regulations, and standards of behavior set by a variety of jurisdictions. With ATA's advice, MNC manages to reduce its taxes on its US income from the statutory rate of 35 % to less than 22 % within 10 years, while paying negligible taxes on income from its exports to other countries. The overall tax rate on MNC's worldwide income becomes 11.1 % [F1.3]. Beyond that, MNC can take advantage of tax incentives provided by the US government. Our MNC is still less aggressive than most real-world multinational companies; the average tax rate in 2004 for US multinationals was 2.3 % and is likely much less in 2012, 8 years later [Gibbs:09].

The differences in taxation of US domestic and multinational corporations have a broad impact. Paying 35 % federal tax rather than 2.3 % reduces profits by a third [F1.4]. Companies that remain bound to the USA show lower profits and will pay more for investment capital. US-based companies also accumulate more obligations to their employees.

Let's move on to Chap. 2 to see how our model multinational company, MNC, grew and how it moved into tax avoidance. Observing MNC's history provides the understanding we need to deal with specific issues that enable tax avoidance.

The issues that will be encountered—the scope of intellectual capital, transfer pricing, valuation of IP, the advantages offered by taxhavens, and the governmental inability to deal with taxhavens—need their own chapter. Only then can a responsible summary and recommendations be made.

Chapter 2
Growth of a Multinational Corporation

This chapter covers the life of our model multinational company. It is documented using 25 years of typical corporate records. Although it is simpler than an actual multinational, there is enough detail to support the analyses in the chapters that follow.

2.1 MNC, A US-Based Start-Up Company

MNC is a typical modern company. It produces products and associated services based on its intellectual capital. It was established about a dozen years ago by a combination of developers who had gained experience in their field, had novel ideas, but found that their current employer was no longer willing to take risks. Some recent university graduates ready to work in an exciting setting joined MNC, even though the future of the start-up was not assured. An early prototype showed enough promise to attract funding by a venture capitalist. Within a few years, an initial product, the Maniac 1000, was ready for marketing and sale. Sales of the Maniac grew steadily, and MNC invested its profits in product improvement, new Maniac releases, and marketing to a broader base of consumers. Within 5 years MNC went public, so that its shares were available for trading on the stock exchange. Initially, sales outside of the USA were handled by distributors, who got Maniacs at a 40 % discount and did their own marketing. The distributors used MNC's trademark, so that MNC became globally recognized. On the basis of feedback from its distributors, MNC's staff in California internationalized its product interfaces so that future Maniacs could be easily adapted to worldwide user habits and communication standards. The Maniac 2000, shown in Fig. 2.1, gained wide acceptance.

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Fig. 2.1 MNC's current product and trademark; both contain MNC's IP

MNC's annual report showed a successful American company poised for further growth based on its valuable intellectual property, as documented in Appendix A.

2.2 MNC Establishes Foreign Sales Divisions

To gain control of sales outside the USA, MNC bought its most effective European distributor, located in Graz, Austria. MNC's management renamed the new division MNC EMEA and transferred all European, Middle East, and Africa distribution of its Maniacs to MNC EMEA, thus establishing MNC's first Controlled Foreign Corporation (CFC).

Soon the EMEA division took on the actual adaptation of Maniacs to standards appropriate to each country in Europe. The costs for those adaptations were charged to MNC in the USA and accounted for about 5 % of the product's prices.

Subsequently MNC established two more CFCs for selling Maniacs offshore. The first CFC was MNC PFE, based in Yokohama, Japan. It sells Maniacs in the Pacific region and the Far East. The PFE division made a special effort to introduce the MNC trademark into Asia. A year later, MNC LSA was set up in Belize to serve Latin-language speakers in Central and South America. After that time, the MNC parent company sold products directly only in the USA and Canada. Figure 2.2 shows the international scope of MNC: a parent MNC US with three distribution divisions, MNC EMEA for Europe, MNC PFE for Asia, and MNC LSA for Latin America.

Design and manufacturing of its Maniacs remained in California. An internal "transfer price" was established for Maniacs shipped from the USA to the three CFC sales divisions. Based on experience with the prior distributors, the transfer price was set at 55 % of the sales price, as computed in Appendix F, formula [F2.1]. That meant that 55 % of the sales revenue from Maniac sales is transmitted from the three "off-shore" distributing divisions to the USA as revenue to be booked at MNC US. After deducting the actual cost of manufacturing the Maniacs, MNC books the remainder as gross income. After deducting the expenses MNC incurred for management and financing, MNC paid taxes on the aggregated US earnings, as shown in Table A.1.