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MBA核心课案例教学推荐教材

Business, Government & the International Economy (Reprint)

企业、政府与国际经济 (英文版)



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出版说明

随着 MBA 教育逐渐走向成熟，人们对于案例教学已不再陌生，很多院校，特别是首批 MBA 试点院校已经比较普遍地采用案例教学这种模式。案例教学、案例编写也成为全国 MBA 教学指导委员会十分重视并大力推广的重要工作。为满足教学需要，中国人民大学出版社与哈佛商学院出版公司达成了引进出版哈佛商学院案例的协议，围绕 MBA 教学选择了十门课程，包括：战略管理，人力资源管理，营销管理，公司财务管理，领导学，组织行为学，供应链管理，技术与运营管理，财务报告与控制，企业、政府与国际经济，中文版和英文版同时推出。先由哈佛大学教授从其数千个案例中进行选择、推荐，再由中国教授从推荐的案例目录中遴选，在翻译的过程中又作了进一步的调整，最终确定了目前的案例。

多年来，中国人民大学出版社一直在不懈地打造经管类图书的品牌，特别是，作为高等教育教材出版的市场领先者，我们一直希望能为中国的管理教学和实践提供更多、更好的产品。随着中国 MBA 市场规模的扩大，学生人数的增加、素质的提高，教师队伍的成熟，我们发现，案例教学教材的数量不足及质量不高成了一个比较大的问题，基于大量的市场调研，哈佛商学院的案例便成了我们针对 MBA 教学引进案例的首选。毕竟，哈佛大学是最早开始 MBA 教育的，其 MBA 学位计划有近一百年的历史。哈佛案例每年能销 600 万份，其案例教学法也在逐渐为世界上各大学校所熟悉和借鉴。作为一家以为高等教育服务为己任的大学出版社，我们深感哈佛案例的引进对于我国工商管理教育理论和实践的提升具有十分重要的意义，事实上，我们在 2002 年曾引进出版了一套哈佛商学案例，分商务基础系列和实务系列，共 21 种，在当时引起了很大的反响，只是囿于条件，案例没能根据课程设置选取，不便于教师在教学中使用，基于此，便有了我们这套针对 MBA 核心课程的案例。

在运作这套案例的过程中，我们广泛听取了老师们的意见和建议，我们发现，单是引进一些案例并出版不能满足教学的实际需要，对于很多老师来说，如何讲授哈佛案例才是一个难点。同时，我们在前期调研和筹备工作中也深感案例的推广不再局限于传统意义上的图书推广工作，它已超出了传统单纯出版图书的概念，变成了一种教学理念和教学方法的推广，它需要我们提供更多、更长期的后续服务，并改变传统的出版模式。

就在我们策划出版这套案例书之际，哈佛商学院酝酿已久的 PCMPCL (Program on

Case Method and Participant-Centered Learning) 培训计划正式启动。为配合 PCMPCL 项目, 哈佛商学院出版公司邀请包括中国大陆、香港、台湾等地区和新加坡在内的 16 所大学的商学院选派一些教授到哈佛商学院参加哈佛案例教学的培训。首次培训定于 2005 年 8 月, 同年 12 月还将在中国举办第二期有关案例教学与写作的培训。

同时, 为帮助广大教师更好地使用哈佛案例, 中国人民大学出版社还将配套引进案例的教师用书、教学录像等辅助资料(出于授权限制, 仅向使用本案例教学的教师提供)。在案例出版后, 我们还将提供教学支持, 帮助中国教师更好、更便利地使用案例。

运作案例出版的过程是艰苦的, 但结果是美好的、令人难忘的。在和哈佛商学院出版公司的合作中, 我们一次又一次地听到他们虔诚地谈及他们的使命: 改善管理实践。在案例出版的过程中, 很多人做了辛苦的工作, 我们感谢哈佛商学院高级副院长、贝克基金教授史蒂文·C·惠尔赖特(Steve C. Wheelwright)先生, 他为我们的案例出版写了序, 他在这套案例书 10 门课的选择中起了决定性的作用, 没有他的努力, 这套书的出版是不可能的。感谢 John Quelch、Michael Tushman、Debra Spar、Pankaj Ghemawat、David Hawkins 以及 David Upton 等教授, 他们在我们初选案例的过程中给予了建议和指导; 感谢哈佛商学院和哈佛商学院出版公司的下列人员, 他们为案例的挑选做了许多工作: Paul Andrews、Tim Cannon、Tad Dearden、Mike Derocco、Pat Hathaway、Amy Iakovou 和 Carol Sweet; 感谢哈佛商学院出版公司国际部总经理陈欣章先生, 他促成了案例最终出版协议的签订和执行, 并完成了整个过程中的协调工作。最后, 也要感谢所有参加案例中文版翻译的教授, 他们都有自己繁重的教学任务, 在出版时间紧迫的情况下, 各位教授都保质、按时地完成了翻译工作。

我们希望这套案例书的出版以及后续的培训工作需要影响几百、几千乃至上万个 MBA; 我们希望他们能用一种新的视角, 适应国际化的大趋势, 理解现代企业的管理方法, 理性地接受信用经商的理念, 推动中国经济的更大发展; 我们希望能通过我们的出版物来引导中国的管理实践。如能做到此, 那么其间的各种辛苦努力也就值得了。

感谢您选用或关注我们的这套案例书, 对您的任何反馈我们都十分珍视。我们的联系方式: 010-62510566 转 551 或 541; E-mail: rdcsjg@crup.com.cn 或登录: <http://www.rdjg.com.cn>。

中国人民大学出版社

2005 年 7 月



序

“培养世界上有影响力的领导人”是哈佛商学院的使命。1908年，哈佛商学院正式成立。为实现这一使命，哈佛商学院通过实施各种项目，影响众多不同的人。哈佛商学院最出名的可能是其MBA项目，但同时我们也通过开展高级管理人员培训项目（Executive Education Program）（包括AMP项目以及其他逾100个为职业经理人开设的各种培训项目）和通过哈佛商学院出版公司的出版物追求我们的使命。我们的出版物包括《哈佛商业评论》、哈佛商学院图书、网络课程，以及哈佛商学院案例研究。

为杰出院校提供建议也是我们使命的一个重要方面。在过去的60年里，哈佛商学院为世界上许多院校不仅提供了教学案例，还通过各种项目帮助他们及其教师提升了自己的案例教学能力。包括：国际教师项目（ITP）、以参与者为中心的教学法培训项目（CPCL）、案例教学与以参与者为中心的教学法培训项目（PCMPCL）。其中，PCMPCL项目发起于2005年8月，其目的在于帮助中国大陆、香港、台湾等地区和新加坡的主要商学院提升其在MBA项目、高级管理人员培训项目以及以管理实践为导向的研究中，熟练运用案例教学和启发式教学的能力。

通过多年的实践，哈佛商学院发现案例教学的应用通常需要经历三个阶段。第一阶段，案例在管理学课堂上是作为概念或原理的例子、说明来使用的。第二阶段，将案例研究作为主要的学习方法，依靠案例讨论。第三阶段，教授开始把他们在案例研究和课程发展上取得的成果大量应用于教学，以便更好地理解 and 传授如何做决定。

为实践我们的使命，哈佛商学院和哈佛商学院出版公司很高兴与中国人民大学出版社携手帮助中国商学院及其教授实现从第二阶段向第三阶段的跨越。我们的努力包括：为来自中国大陆、香港、台湾等地区和新加坡的教授提供为期10天的PCMPCL培训；出版一套根据MBA核心课编辑的案例书（分中文版和英文版）；组织一系列后续服务的案例教学和案例写作的培训班；建立一个服务于中国教师的案例服务中心。

我们这样做的目的有两个，并且这两个方面都与哈佛商学院的使命紧密相连。一

个目的是通过帮助全球教育机构——正如我们在中国发现的那些机构一样——发展他们自身的、着眼于管理实践的案例教学能力，从而促进全球管理教育水平的提高。另一个目的是帮助这些机构培养一些能够在他们的学校中起到带头作用的教师，使他们能够写出新的、能够与世界分享的案例研究和教学资料。这种既符合国际标准，又与中国具体管理实践相关的案例研究正是中国管理教育机构所急需的。

我们很高兴中国人民大学出版社和中国许多优秀的商学院加入我们的队伍。我们希望哈佛案例书在中国的出版能对中国的教育机构、教师及其培养的未来职业经理人有所帮助，帮助他们实现在全球经济中扮演重要角色的梦想。

史蒂文·C·惠尔赖特 (Steven C. Wheelwright)

哈佛商学院高级副院长，贝克基金教授

2005年6月



PREFACE

The mission of the Harvard Business School (HBS) is “to educate leaders who will make a difference in the world.” Founded in 1908, when Harvard University was already more than 250 years old, HBS achieves this mission by reaching a wide range of audiences through a variety of programs. While HBS is perhaps best known for its MBA Program, it also pursues this mission through its Executive Education Programs (including the Advanced Management Program as well as over 100 additional programs for practicing managers) and through the publishing activities of Harvard Business School Publishing (HBSP) which include Harvard Business Review, HBS Press (books), E-Learning products, and HBS Case Studies.

Providing guidance for leading academic institutions continues to be an important aspect of the HBS Mission. Over the past 60 years, HBS has not only made its case studies available throughout the world, but has assisted other Universities and their faculties in developing their ability to teach by the case method. This has included the offering of such courses as The International Teachers Program (ITP), Colloquium on Participant Centered Learning (CPCL) and the Program on Case Method and Participant Centered Learning (PCMPCL). The PCMPCL Program initiated in August of 2005 is aimed at helping leading Business Schools in Greater China and Singapore to develop excellence in the use of the case method and participant centered learning in both MBA and Executive Programs, as well as in practitioner-oriented research.

HBS has discovered over the years that adoption of the case method often proceeds through three stages. The first stage is where cases are used as examples and illustrations of principles and concepts being taught in a Management Course. The second stage is where cases become a primary means of learning, with a majority of the class sessions in a program relying on field-based cases. The third stage is then where the faculty begin doing significant amounts of their case-based research and curriculum development to better understand and teach about decision making.

Consistent with our mission, we at HBS and at HBS Publishing are pleased to offer—in conjunction with our partner, China Renmin University Press—a comprehensive approach to Chinese Business Schools and their faculty, that is focused on helping them progress through

the second stage of participant-centered learning and into that third stage. This overall effort consists of offering the 10-day PCMPCL Course to teams of business school faculty from Greater China and Singapore, providing a series of case books (through China Renmin University Press) tailored to the Ministry of Education's MBA curriculum recommendations, offering a set of follow-up case teaching and case writing seminars in China, and establishing an academic support center to assist faculty with their unique course and case requirements.

Our purposes in doing this are two-fold, but both are directly tied to the HBS Mission. One purpose is to facilitate better management education throughout the global economy by assisting leading educational institutions—such as those found in China—in developing their capabilities in practitioner focused, case based teaching. The other purpose is to help the leadership at such institutions to develop a critical mass of faculty who can lead the efforts of their own institutions in creating additional case-based teaching and research materials that can be shared with other parts of the world. Such China-specific management materials of a world class caliber are anxiously needed by academics elsewhere in the world.

We are pleased that China Renmin University Press and so many leading Chinese Management Schools would join with us in pursuit of these purposes. We anticipate that this series of case books will be a significant contributor to the pursuit of the important role that Chinese Educational Institutions, their faculty, and the practitioners they serve will have in the global economy.

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June 2005

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DAVID MOSS
SARAH BRENNAN

National Economic Accounting: Past, Present, and Future

During the 1990s, the United States departed sharply from the global trend in national economic accounting. A long list of nations, from Australia to Zimbabwe, had begun to supplement traditional measures of economic output with estimates of environmental impacts, such as natural resource depletion.¹ But the United States refused to go along. Having once played a central role in setting world standards for national accounting, the U.S. appeared to have lost its leadership position. As one Commerce Department official complained, "They let us go to the meetings, but no one listens to what we have to say."²

In fact, the Commerce Department had begun publishing data on the value of the nation's mineral resources in 1994, and it had planned to broaden its environmental accounting initiative over subsequent years. But the project came to a sudden halt when Congress intervened, prohibiting the publication of mineral resource values and effectively banning all further environmental data-collection projects related to Gross Domestic Product (GDP).³ Representative Alan Mollohan of West Virginia, who sponsored the Congressional ban, argued that after measuring mineral depletion and air pollution, "somebody is going to say ... that the coal industry isn't contributing anything to the country."⁴

Facing what appeared to be an immovable barrier, the Commerce Department asked a prestigious advisory body, the National Research Council (NRC), to study the subject and suggest a course of action. Composed of leading scientists and economists and chaired by William D. Nordhaus, a professor of economics at Yale University, the NRC recommended new methods for calculating the economic impact of environmental pollution and natural resource use. Although it did not advocate the abandonment of GDP, the standard measure of economic activity, its final report did suggest that environmentally-adjusted GDP would constitute a superior measure of overall social welfare.

No nation had yet adopted as comprehensive a system of environmental accounting as the NRC recommended. But many had taken substantial steps in this direction, often following the new environmental valuation guidelines of the United Nations.* The big question for the United States – and the world – was whether this emerging global trend represented a fundamental improvement in

* The international standards for calculating GDP are laid out in the *System of National Accounts (SNA)*, which is published by the United Nations, the Commission of the European Communities, the International Monetary Fund (IMF), the Organization for Economic Cooperation and Development (OECD), and the World Bank. These organizations have also published guidelines on environmental accounting.

Professor David Moss and Research Associate Sarah Brennan prepared this case. This case was developed from published sources and interviews with officials of government agencies and non-governmental organizations. HBS cases are developed solely as the basis for class discussion. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management.

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the art of national economic accounting or merely a popular fad, which threatened to distract attention from the traditional economic variables that some analysts believed mattered most.

The Fundamentals of GDP Accounting

The traditional goal of national economic accounting has been to measure the value of output produced by a nation over a particular period of time (typically a year).^{*} There are many challenges in doing this. Economists have long had to grapple with the problem of inflation, which makes it difficult to compare measures of output over time (see **Appendix B**). But perhaps the most fundamental challenge of all is to avoid counting the same output multiple times at different stages of production. In measuring the value of domestic coffee output, for example, it would be wrong to add up the sales of the raw coffee beans grown in Hawaii, the sales of the firms that processed and packaged those beans, and the sales of the cafés that used those processed beans to make cups of coffee for their customers. Clearly, this would over-count the value of coffee production. In order to deal with this double-counting problem, economists have developed three distinct approaches for calculating total output, which focus respectively on value added, income, and expenditure.

The Three Measurement Approaches

Value Added Under the first approach, output is calculated by summing the value added at each stage of production, where “value added” is defined simply as sales revenue minus material input costs. Returning to our coffee example, we would sum the value added on the Hawaiian coffee plantations (i.e., sales revenues from the unprocessed coffee beans), the value added by the processors (i.e., sales revenues on cleaned and packaged coffee beans less the cost of the beans themselves), and the value added by the cafés (i.e., sales revenues on brewed coffee less the cost of the processed beans and other inputs). The sum of the value added at each stage of coffee production will exactly equal the value – or sales price – of the final cup of coffee. More generally, the sum of all value-added for every good and service produced within a nation will equal that nation’s GDP (see **Exhibit 1**).

Income Since the value added at each stage of production must ultimately be allocated to members of the public in the form of income, another way to calculate total output is to measure total income. Specifically, the returns to an economy’s productive factors – land, labor, and capital – can be calculated as the sum of rent, wages, and profits. In our coffee example, total income would equal *rent* paid to the owners of the plantations’ land, the packaging firms’ factories, and the cafés’ buildings; plus *wages* paid to workers on the coffee plantations, in the processing factories, and in the cafés themselves; and finally the interest, dividends, and retained earnings (*profits*) stemming from the plantations, the processing firms, and the cafés. After a few minor adjustments, total income will exactly equal total output, or GDP. (See **Exhibit 2**, panels A and B.)

Expenditure Under the third approach, the value of total output is measured by calculating the nation’s spending on final goods and services (see **Exhibit 3**). A good or service is considered final if it does not represent an input into the current production of another good or service. For example, if an individual purchases coffee beans to grind and brew at home, they constitute a final product, the value of which is counted in GDP. But if a café purchases the beans, they are considered intermediate goods and are not included in GDP. Including both the café’s purchase of coffee beans and its sales

^{*} The two standard measures of total output are Gross Domestic Product (GDP) and Gross National Product (GNP). On the differences between the two, see **Appendix A**.

of brewed coffee to the public would constitute double-counting, since the price of a cup of coffee includes the cost of the beans.

The expenditure approach breaks spending into four basic categories, the sum of which exactly equals GDP. The four categories are household consumption, investment, government expenditure, and net exports. Thus,

GDP = Consumption (C) + Investment (I) + Government Expenditure (G) + Net Exports (X-M),
where:

- *Consumption* includes all household purchases of new goods and services for current use.
- *Investment* includes expenditures that are intended to increase future output of final goods and services. Defined in this way, investment includes business purchases of fixed structures, equipment, software, and inventory, as well as the cost of new owner-occupied homes.* Many countries include government investment – such as spending on new roads and bridges – in this category, but others (including the United States) do not.
- *Government expenditure* includes all government spending on goods and services, at all levels of government (federal, state, and local). It may or may not include government spending on fixed capital stock, depending on how government investment is classified (i.e., as government expenditure or as investment). Under neither definition, however, does government expenditure include transfer payments – such as welfare and Social Security benefits – since transfers are not associated with the production of output.
- *Net exports* is simply the difference between exports and imports. Exports are added to domestic expenditure because they constitute domestic output, even though they are purchased by foreigners. Imports, by contrast, must be subtracted from domestic expenditure because they are produced abroad and are thus not part of domestic output.

In most cases, a single item may be categorized in a variety of ways, depending upon who purchases it and for what purpose. A coffee maker purchased for home use is classified as household consumption, whereas the same coffee maker purchased for use in a café is classified as investment. If a café in Italy purchases a coffee maker made in Seattle, this counts as an export and is added to domestic expenditure in calculating GDP. Conversely, if a Seattle café purchases a coffee maker made in Italy, this expenditure counts as domestic investment but also as an import, which is deducted from domestic expenditure. Because the investment (a plus) and the import (a minus) cancel each other out, the imported coffee maker will exert no net effect on GDP, which is appropriate since no domestic production was involved.

Although all three methods for calculating GDP are based on detailed rules that are highly technical in nature and even counterintuitive at times, the expenditure approach – with its focus on final sales rather than value added or income – is by far the most widely used of the three. The expenditure approach has gained ascendancy because of its perceived usefulness in macroeconomic forecasting and policymaking. As a result, the most common definition of GDP is simply the market value of all final goods and services produced within a nation's borders over a given year.

* Investment also includes the wages and salaries that a business may pay to people hired as part of an investment project. For example, if a café builds a specialized high-tech coffee maker, the wages of the computer programmer will show up in investment.

Whichever method is used, the aim of GDP accounting is to estimate the value of output, or product. As a consequence, transactions not associated with the production of new goods or services – such transfer payments, capital gains and losses, and the sale of used goods – are excluded.*

Depreciation

Finally, it is important to remember that *Gross Domestic Product* excludes deductions for depreciation. Sometimes called “consumption of fixed capital,” depreciation is formally defined as “the value of wear and tear, obsolescence, accidental damage, and aging.” (Returning to our coffee example, the café’s coffee maker depreciates in value each year due to wear and tear from brewing coffee. This wear and tear may be thought of as an input, just like the coffee beans themselves.) The U.S. Commerce Department’s official measure of depreciation also covers reductions of the capital stock stemming from disasters, such as hurricanes and floods.⁵

If capital depreciation is very large across an entire economy, even substantial levels of gross investment may not be sufficient to support rapid growth over the long term. It is for this reason that students of economic development often pay close attention to Net Domestic Product (NDP), which is GDP less depreciation. NDP, or net output, essentially measures the amount of output that can be consumed, leaving the capital stock intact.

In practice, GDP is used much more frequently than NDP. As the Commerce Department explained back in 1947, net product is “theoretically preferable.... It suffers, however, from the serious obstacle that there is no satisfactory operational definition of the consumption of fixed capital.”⁶ Having decided that it was difficult to measure depreciation accurately, the Commerce Department chose to emphasize gross rather than net product, and has done so ever since (as have most other countries).

Gross Product, by way of Marx, Kuznets, and Keynes

Given the pivotal role that national economic accounting now plays in the making of U.S. economic policy, it may seem surprising that the notion of collecting aggregate economic data came rather late to the United States. But until the tumult of the Great Depression forced its hand, the United States lagged behind many countries in producing official estimates of national output, trailing Australia (1886), Canada (1925), the U.S.S.R. (1925), Germany (1929), the Netherlands (1931), and New Zealand (1931).⁷ The Soviet Union was especially reliant on national economic accounting, given that state-planned economic growth required detailed knowledge of net product. As Lenin reputedly claimed, “socialism is first of all accounting.”⁸

In *Das Kapital* (1885), Karl Marx had refined the concept of ‘material production’ originally suggested by Adam Smith more than a century earlier. Following Marx’s lead, a Menshevik economist calculated national accounts for Russia in 1906 and for the Soviet Union in 1917. Official estimates followed in 1925. Non-Marxist countries expanded Smith’s original concept to include services as well as goods. Some countries directly measured the value-added of net product, though

* Although used goods are not included in GDP, the sale of a used good is often associated with the production of a new service, which is included. The used items sold on eBay, for example, are not counted as part of GDP. However, the commission paid to eBay for making an online auction is counted as a new service and therefore included. It is also worth noting that the components of GDP do reflect the net transfer of used goods across sectors of the economy. Consumption, for example, includes the purchase of used rental cars by households (Bureau of Economic Analysis, *A Guide to the NIPAs*, updated 31 August 2001, www.bea.gov/bea/an/nipaguid.htm, accessed 10 September 2002, pp. M.8, M.9).

many others calculated net output indirectly using income tax records.⁹ American policymakers adopted the income approach when they began formulating the U.S. national accounts for the first time in 1932.

That summer, Senator Robert M. La Follette, Jr. of Wisconsin, a progressive who championed national economic planning, unemployment relief, and public works projects, demanded that the federal government improve its knowledge of the nation's income. Although the country was obviously suffering through the greatest downturn in its history, economists had very few hard data on economic conditions, making it almost impossible to pinpoint the nature of the crisis or its impact on different sectors of the economy. Private groups had produced national income estimates before 1929, but no similar figures existed for the subsequent decline. Observers could only guess the extent of the depression from proxy indicators, such as stock market indices and freight car loadings.¹⁰

During Congressional hearings, a high-ranking Commerce Department official bemoaned the nation's lack of data, particularly on aggregate consumption. "We do not have really anything in the way of an adequate measure of the other expenditures of the consumer besides that which goes in department stores, mail-order houses and chain stores, certain limited classes of establishments, and those ... are not a cross section and are not representative of consumer purchases."¹¹ The Commerce Department also had little information on savings or investment, besides a rough estimate that each was about 15 percent of national income in normal years.

Senator La Follette favored a resolution directing the Commerce Department to collect "estimates of the total national income of the United States for each of the calendar years 1929, 1930, and 1931, including estimates of the portions of the national income originating from agriculture, manufacturing, mining, transportation, and other gainful industries and occupations, and estimates of the distribution of national income in the form of wages, rents, royalties, dividends, profits, and other types of payments."¹²

The Senate heeded La Follette's request, and a small team of economists at the Commerce Department led by Simon Kuznets, later awarded the Nobel prize for his research on economic growth, published the first set of U.S. accounts in 1934. Kuznets's team of researchers directly measured two accounts, *Income Paid Out* and *Business Savings*, and interpreted their sum, *Income Produced*, as the value of net output (Exhibit 3). *Income Paid Out* measured wages, salaries, rent, and distributed corporate profits on a post-tax basis. *Business Savings* equaled positive business savings (such as additions to capital stock, investment, and reserves) and negative business savings (depreciation and withdrawals from reserves, including the depletion of natural resources).¹³ Kuznets's data revealed, among other things, that wage earners had borne the brunt of the downturn, while salaried employees and property-owners experienced markedly smaller reductions in income.¹⁴

Not everyone was entirely pleased with the Commerce Department's new data collection efforts, however. Said one critic in 1939,

[T]here has been a persistent and probably systematic attempt to use the preliminary and tentative findings on national income to influence public opinion for political action. In the hands of the politician, the demagogue, and the special pleader, national income and the statistics concerning it can be used to prove almost anything about the wealth of this nation.¹⁵

He went on to suggest that national income data were being used – wrongly, in his view – to justify a policy of intentional deficit spending at the federal level.¹⁶

Yet despite such criticism, support for national economic accounting seemed only to gain momentum after the publication of John Maynard Keynes's *General Theory of Employment, Interest and Money* in 1936. Keynes's work, which advocated deficit spending in a downturn, directed attention

to the relationship between employment, the quantity of money, the interest rate, and aggregate expenditures. Because the latter comprised three main variables – consumption, investment, and government spending – Keynes's followers soon reformulated the national economic accounts to incorporate these types of expenditures.¹⁷

In fact, the United States ultimately adopted the Keynesian expenditure approach to national accounting during the 1940s, in response to the demands of wartime economic planning. Kuznets's estimates were revised and the measure of output was renamed *Gross Product* (see **Exhibit 4**).¹⁸ Though the new estimates emphasized gross output, the Commerce Department presented a measure of net output as well, called *Net Product*. Natural resource depletion and bad debts, which had been included in the old concept of 'negative business savings,' were now excluded from the national accounts.¹⁹ An even more important change stemmed from the decision to include government purchases as part of gross output. As a result, "government" became an official category of aggregate expenditure, and national income estimates were henceforth calculated on a pre-tax rather than a post-tax basis.

Unhappy with the revision, Kuznets argued that the inclusion of government spending inflated the true value of output. In his opinion, most government purchases were devoted to the production of intermediate goods crucial to the production process (such as the legal system and national defense) rather than final goods consumed by the public.* Including government spending, therefore, double-counted product, in a manner analogous to counting the coffee beans that a café purchased as well as the cups of coffee that it sold. It was, as Kuznets put it, "fetishism" to conceive of government "as an ultimate consumer itself...."²⁰

But treating the government as a final consumer was exactly what the Keynesian expenditure approach required. Though the new estimates were controversial at first, the gross expenditure method soon eclipsed the net income method of estimating output. Internationally, too, the popularity of Keynesianism quickly led most nations to shift their emphasis from net income or value added to gross expenditure around the middle of the century. Although many countries now calculate both gross output and net output using all three approaches, the main emphasis almost everywhere is on gross output (GDP) as calculated through the expenditure method (C+I+G+X-M).

Challenges in Accounting for Aggregate Output

Imputing Output

One challenge in calculating gross output, which was already apparent in Kuznets's day, was how to account for new goods and services that were not sold in the formal economy (such as homemade clothes) or that were not priced in the private market (such as "free" checking or other unpriced financial services). Since the 1930s, the Commerce Department has attempted to estimate – or impute – the value of some of these forms of output. Imputed output was worth approximately 15 percent of GDP in 2001 (see **Exhibit 5**).

In an early report to Congress, Kuznets acknowledged that "[s]uch activities as housekeeping, canning and preserving, gardening, sewing, repairing of property, and other similar tasks undertaken by members of the household yield a considerable volume of both commodities and

* Kuznets did acknowledge exceptions to his rule – especially government services provided directly to consumers, such as education.

services which greatly enhance the net national product.”²¹ He estimated that housework was worth roughly 26 percent of market output in 1939.²² Nevertheless, none of this non-market output was included in the original national accounts because it was not “susceptible of practicable measurement.”²³ Related omissions were income from odd jobs, such as mowing lawns and keeping boarders, and from illegal activities. The Commerce Department did impute the value of food and fuel produced and consumed on farms, an imputation which is still made today. The guidelines on national accounting published by the United Nations go considerably further, recommending imputations not only for the value of farm-produced goods but also for the value of output from home production of clothing, leather, and furniture, from odd jobs (often called the informal economy), and from illegal activities such as illicit gambling and prostitution.²⁴

The question of how to account for a variety of other unpriced services presents a similar challenge. It has long been recognized, for example, that consumer durables, such as automobiles and refrigerators, deliver services for many years. Yet the national accounts typically record only the initial purchase of these durable goods (in personal consumption).²⁵ The one major exception in the United States involves housing. Since 1947, the Commerce Department has classified the initial purchase of a new home as investment and then imputed rent on an annual basis (as a consumption expenditure).

A closely related example involves government services, such as education and police protection, which are financed through taxes but are provided to recipients at no charge. Part of the value of these services is automatically accounted for, in the government’s current expenditures on salaries for teachers, school books for children, uniforms for police, and so on. But the value derived from fixed assets, such as school buildings and police stations, can remain hidden. Believing that this was indeed a problem, the Commerce Department in 1996 adopted an imputation developed by the United Nations. Under the U.N. approach, the hidden value of these unpriced government services was assumed to at least include the depreciation of government buildings and other fixed assets. Government depreciation was thus added to government consumption on an annual basis as a partial proxy for the value of private consumption of government services.²⁶

As it turns out, many financial services in the private sector are equally difficult to measure. Since 1947, the Commerce Department has imputed a value for the free services provided by banks, such as check cashing. The imputation is the difference between interest received on loans and interest paid on deposits. For a long time, the United Nations had classified all non-priced depository activities as intermediate goods, but it reversed this position in 1993, recommending instead an imputation for banking services comparable to that used in the United States.²⁷

The fact that until the 1990s the United States and the United Nations used very different techniques to measure the output of banks and the government illustrates why it is necessary to exercise great care in comparing international GDP data, since the level and type of imputations may vary considerably from one country to another.²⁸ Zimbabwe’s GDP, for example, increased by 20 percent after officials there adopted U.N. recommendations regarding imputations for subsistence farming, illegal activity, and the informal economy. As a result, Zimbabwe’s GDP is no longer strictly comparable to that of neighboring countries that do not impute these forms of output. Similarly, official estimates of GDP for Argentina and Brazil include informal and illegal activity, while Mexico and Costa Rica impute informal production but exclude illegal activity. Many other Latin American countries include neither. In most cases, the effect of adopting the U.N. standard is much less dramatic than in Zimbabwe, typically ranging from 1 to 2 percentage points.²⁹