Accounting and Control in MBA Education

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MBA education prepares people for working in and managing three overlapping levels of society: organizations, markets, and the economy. Data, information, formal and informal contracts, and the measurement processes underlying them, are common in supporting all aspects of management. Sound education in accounting and control (henceforth A&C) is important for MBAs to understand and operate these processes, and to use their output to function efficiently and adapt to changes in environment. This note takes a broad perspective and explores the interfaces between management for business and society and A&C to facilitate our thinking about the latter’s role in the MBA curriculum.

Many people think of A&C as a set of techniques or rules that can be applied to generate the right answers. Of course, A&C do use a collection of concepts, rules, and techniques. Assets, recognition, conservatism, and costing are as important in A&C as present value is in finance, diversification is in investments, and throughput rate is in operations. Unfortunately, it has been too easy to lose sight of the problems of managing organizations, markets and economy that led to the development of these concepts and techniques over the millennia. Understanding the the challenges of management, and ability to devise A&C systems to meet them, is an essential part of MBA education. This is where the stereotypical perspective of accounting-as-a-mechanical-set-of-rules-of-bookkeeping fails to serve management education well.

This note identifies five basic functions of A&C in organizations, markets, and economy. Newspaper reports everyday on breakdowns of these systems, and the large, often tragic but avoidable, socio-economic consequences of inability or unwillingness of managers or policy makers to devise effective A&C. Weak systems are cynically manipulated for short term gains. Such problems are not just ethical, but are rooted in the failure to understand the function of A&C at various levels of society. Yale education can be designed to emphasize the systemic role

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1 Comments and suggestions from Sudipta Basu, Dhananjay Gode, Karim Jamal, and Manjula Shyam on an earlier draft are gratefully acknowledged.
of, for example, budgeting, transparency, and public disclosure. A&C calls for a careful balance between written rules and social norms, because no written rule can be evasion and manipulation proof.

**Organizations**

Organizations—business as well as non-business—can be seen as sets of contracts that link various participating agents. Beyond family units, three broad classes of participating agents from financial capital, labor (managerial as well as other), and product (input as well as output) markets seek their own respective objectives through their participation in the organization; government and community constitute the fourth class of agents. In this note the set of contracts—formal as well as informal expectations created in the relationships—are defined as the organization.

A&C serves as the operating system of the organization, which is essential to design and make it function. Perhaps the analogy of the electrical or plumbing system of a building or the nervous system of an organism is not too farfetched. A&C must serve five critical functions: (1) monitoring and measuring resource inflows, (2) monitoring and measuring resource outflows, (3) determination and communication of contract fulfillment by various participants, and (4) maintaining the liquidity of the capital, labor, and product markets by providing information to potential participants. In addition, since all contracts (with the possible exception of common equity) come up for renegotiation raising prospects of conflict, organizational contracts agree ex ante to make some information common knowledge through public disclosure in attempts to cut dead-weight losses from impasses that may arise from a temptation to bluff because of information asymmetries. Various elements of the A&C system of an organization can be seen, and evaluated in terms of their effectiveness in serving these five critical functions.

**Markets**

The A&C system of an organization is designed to suit its structure and involvement with various markets. It is useful to illustrate the point with three canonical organizational forms and the corresponding systems developed to serve each of them. (Three is taken for illustration only; one can always expand the number by making finer distinctions.)

The most elemental business—a proprietorship with no managerial hierarchy—needs only the simplest form called bookkeeping, primarily as an aid to the proprietor’s memory to track rights, obligations and profitability in the form of purchases and sales, inventory, prices paid and charged, receivables, payables, and payroll, etc., but also as evidence in case the tax authorities ask. Second, larger proprietorships enter the managerial labor market to create a managerial hierarchy and concomitant localization of information and motivations in multiple egos, each pursuing his/her own objectives. Simple bookkeeping being insufficient for the efficient functioning of such organizations, their A&C expands beyond the elemental level to include the cost determination, profitability, budgeting, divisional and individual performance evaluation,
and compensation schemes, etc.—the familiar elements of stewardship or managerial accounting. There is a labeling mismatch to the extent that a good part of what is called “finance” in the corporate world is called A&C in universities. Third, when the capital requirements of the business grow beyond the means of the proprietor, s/he may raise additional capital from others, perhaps even going to debt and equity markets. When the number of shareholders becomes sufficiently large and anonymous to give a business the form of a modern publicly-held corporation, it needs the full complement of financial reporting systems to serve the five critical A&C functions listed earlier.

A large part of A&C research and teaching in MBA programs concerns itself with this full-fledged financial accounting model. Note that I use this label to describe the entire system of A&C needed by large publicly owned corporations, and not confine its meaning to external financial reporting which is an important part—but only a part—of it. Being the most developed form for most complex organizations, this model helps manage the organization’s engagements with participants from capital, labor (managerial and other), and product (input and output) markets. In addition, its basic infrastructure serves to support the engagement of the organization with the government through tax accounting (to which I return in the following section).

Besides the focus on A&C in the large publicly held corporations (producing private goods), MBA programs have interest in the special features of entrepreneurship, partnerships, joint ventures, and re-organizations. In addition, some 30-50 percent of the economy of most countries consists of organizations producing public goods—mostly government and not-for-profit but also social enterprises as well as units of profit-oriented private good organizations that must be managed to produce public goods for use within the organization. The organizational economics of producing public goods calls for a different accounting, control, contract and governance system because the benefit of free monitoring of the output provided by paying customers in private good organizations is not as easily, frequently or quickly available in public good organizations. Instead of being the independent variable, the legal form of an organization is best seen as a variable that depends on the economic characteristic of its output—e.g., private or public good, and how well the customer/beneficiary can assess its quality.

In large public corporations, A&C interacts intensively with capital markets in myriad ways that are not only important but also so familiar that I shall not dwell on them here. It interacts with the managerial labor markets through costing, budgets, planning, transfer pricing, managerial and divisional performance, and compensation systems. The engagement with others in the labor markets includes payroll and benefits, of which pension system and their control have become major issues in various kinds of organizations. In addition, it interacts with customers through linkages between costing and pricing models of the firm, bidding estimates in contracting businesses, invoicing, trade credit, and debt collection. Interaction with the suppliers includes control of quantities and quality of goods and services received before they are paid for. Of course, many of these latter elements of the system do not receive much attention; like the plumbing; we hardly realize their importance until something goes wrong.
It is, however, important to note that the A&C system helps maintain the liquidity of capital, labor and product markets by providing verified information not only to the current security holders, employees, customers and suppliers but also by providing such information to others in each of these markets because they are potential participants. No organization can continue to function for long without cultivating potential security holders, employees, customers, and suppliers by “advertising” to them through information channels.

**The Economy**

The third major aspect of A&C is its functions in the economy at large. I mention them briefly under headings of taxation, management of governmental units, regulation, law, and macroeconomic management.

Taxation.
Systems designed to minimize, control, estimate, and pay the taxes due to various government units along with support for resolution of disputes and litigation. Many people believe that improved technology for planning and avoidance of taxation during the recent decades may have been an important factor in the decrease of income taxes gathered by the U.S. governments from corporations.

Management of Government Organizations.
Most but not all government units produce public goods. The absence of explicit pricing for public goods substitutes customers of private good organizations with beneficiaries of public good organizations. Absence of price also eliminates the “free” benefit of monitoring of managerial and employee performance by paying customers (who can punish them by simply withholding revenue). This absence of monitoring by beneficiaries (who can complain, but cannot punish) has major implications for management, governance, and A&C of organizations that produce public goods. Since a non-trivial number of MBAs work for public good organizations, they could benefit from learning this fundamental economic difference and its organizational and managerial consequences.

Regulation.
At least starting with the second half of the nineteenth century in the U.S.A., state and federal regulation of gas, power, phone and other utilities, railroads, pipelines, securities, commodities and their exchanges, banks, insurance companies, brokerages and clearing houses, mutual funds, etc. has been based on their accounting data and reports. In addition, accounting data play important roles in antitrust, internal and external trade regulation and disputes, anti-dumping and hundreds of other national and international regulations and organizations. Over the past 75 years, regulation of financial reporting itself has become an important issue to which I return in the next section).
Public Policy and Law.
Accounting plays an important role in formulation, evaluation and implementation of public policy and law. At the formative stage, legislatures must estimate the short and long-term financial consequences of draft legislation, which requires them to consider not only the behavior under the prevailing circumstances, but also how decisions of people might change after the proposal becomes law. The executive Office of Management and Budget and the Congressional Budget Office provide most of these services, along with their counterparts at the state level. Government Accountability Office (GAO) evaluates effectiveness of government programs in relation to the legislative intent behind them, the money spent, and the results obtained. Civil and criminal litigation to implement laws often involves assessment of damages and penalties based on accounting data.

Major public policy issues rooted in accounting include accrual of retirement and other benefits promised to the members of the armed forces and other employees of federal, state, and local governments. Estimation and accrual of Social Security, Medicare, Medicaid, and comparable systems at state and local governments is a major challenge overlapping accounting, economics, finance, politics, demography, and actuarial science. An example is the Inform Act, proposed in 2013, that “requires the Congressional Budget Office (CBO), the General Accountability Office (GAO), and the Office of Management and Budget (OMB) to do fiscal gap accounting and generational accounting on an annual basis and, upon request by Congress, to use these accounting methods to evaluate major proposed changes in fiscal legislation”(http://www.theinformact.org/). These are aspects of accounting with major implications for the future of our system of government and welfare of society.

Government and Macroeconomic Management.
Management of government organizations—their accounting, budgeting and financial management system to ensure conformity to legislation is known more for violations than conformity with massive consequences of resource usage and efficiency. Many aspects of management of the economy by the executive branch of government and the central bank depend on accounting data. In the U.S., the Bureau of Economic Analysis depends on accounting data (and makes adjustments to it) to publish national income accounts which serve not only as a basis of managing the economy by the central bank and the executive branch but also decisions made in private organizations throughout the economy.

Accounting Policy

The past two decades have seen major failures in corporate and government accounting systems, and malfunctions at macroeconomic levels with severe consequences. Further, the anticipated overhang of entitlement programs and pensions at federal, state and local levels in the U.S.A. and most other developed countries is a matter of major public concern and political gridlock about spending and taxation policies. While this is hardly the place to go into them in detail, accounting for corporations, banks, governments, and regulation has not been without a role in
these failures and difficulties. Understanding of the accounting linkages of these failures by the population at large, and even more so by the decision makers who make policy and run corporations and governments is a prerequisite for us to have a chance to have an intelligent resolution of the challenges before us so that we have a fair chance for a prosperous future. In addition to basic accounting literacy in the issues mentioned in the preceding sections, policy makers also need a basic understanding of the policy issues involved. I shall mention only two here.

First, auditing—internal and external—is an attempt to protect the integrity of the A&C system from errors and opportunistic manipulation by the bosses. Given the weaknesses of human nature, millennia of efforts have failed to find an ideal auditing system. Every intervention brings its own side effects and unintended consequences. Consequently, A&C systems can bear only so much weight, and resist only so much temptation, before they break down under the pressure of the high-powered incentives of business managers and the all-or-nothing games that politicians play. MBA students should be made aware of these limitations so that they do not close their eyes to them when they reach positions of power, or propose legislation or regulations (e.g., SOX, Dodd-Frank, and most recent proposal to rotate auditors) to solve the problem “once and for all”.

The second is written standards for financial reporting by private, government and not-for-profit organizations. The pursuit of improving financial reporting by writing down increasingly detailed rules over the eight decades of federal securities legislation in the US has borne little fruit. Indeed, it has been argued that the progressive shift from social norms (general accepted accounting principles or GAAP) to written standards has made financial reporting worse, not better. Unfortunately, the lawyers who make critical decisions about accounting policy and legislation seem to think that writing “clear rules” should solve the problem; little realizing that such rules are a welcome invitation to financial engineers to design innovative transactions to evade the intent of the rules. For society to have any chance to do better on policy-making (e.g., a better balance between social norms and written rules along the lines of the balance between common law and statutory law), MBA students should be aware of the basic trade-offs involved.

**Accounting History and Technology**

The history of accounting and control systems, indeed of management itself, is as old as the problem of governing temples and kings’ finance. While the first surviving European accounting textbook appeared in 1492 (Pacioli’s *Summa* in Latin), Kautilya’s fourth century BCE Sanskrit classic on public management *Arthasastra* includes two detailed chapters on accounting and control. There are extensive records of A&C throughout the Middle-East and China going back several millennia. Yale’s own collections include not only the string *quipus* the Inca used to keep detailed accounts but also Sumerian cuneiform clay tablets showing evidence of double-entry bookkeeping in the third millennium BCE. This long history of efforts to develop A&C for
various social, political, economic and technological situations in all parts of the world remains largely ignored by our fixation on accounting-as-bookkeeping.

Development of computer technology and displacement of pen-and-paper bookkeeping systems by digital computing can, if viewed superficially, give one the impression that accounting no longer should be an important element in MBA education. Indeed, I have the impression that at least some of my colleagues and many MBA students who may not have had the chance to reflect on the issues raised in the preceding pages may think so. To the extent they exist, such impressions are likely based on equating accounting with bookkeeping.

While bookkeeping itself is not a trivial matter, it has been perfected to the extent that most business managers and politicians can go through their careers without ever having to prepare an income statement or make a journal entry (just as most organisms live and die without ever being aware of their nervous or blood circulation system). After introducing the basic concepts and terminology (accounting as the language of business), MBA courses teach (and should teach) the students about their interactions as managers and policy makers with the A&C system. In other words, students need to understand how they can use A&C data to make better decisions, how their actions influence the numbers in accounts (which is what others will know about their activities), and how activities of others influence the accounting data they will use in their own decisions. This covers just about everything they do in any position of responsibility and they cannot make sound decisions without a good understanding of the properties of A&C data.

The accounting curriculum of MBA programs differs from undergraduate accounting curricula which tend to prepare students for accounting and auditing professions. The MBA accounting curriculum is oriented towards decisions and their consequences. This note briefly lists some of the decision linkages. Accounting elements of MBA curriculum, some free standing and other interlocking with finance, human resources, macroeconomics, managerial economics, marketing, and operations, need careful collective attention of the faculty to ensure that our students become leaders in business and society, no matter which position they go on to occupy.

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3 Most of what is called “finance” in the world of business is taught in courses labeled as “accounting” in business schools (most of what is called “finance” inside business schools is called “investments” outside). Even though most recruitment for corporate finance jobs demands skills taught in “accounting” courses, absence of audit firms in CDO recruiting can easily leaves the impression that A&C is peripheral to MBA recruitment.