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And Product Markets**

Shyam Sunder
Yale School of Management

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Shyam Sunder

Yale University

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Abstract

Accounting practices differ across geographic and political boundaries, across sectors of the economy within these boundaries, and across types of organizations. Globalization exerts a homogenizing force across the political and jurisdictional boundaries with mixed consequences. The development of markets for various factors of production exerts a similar integrative force across sectors of the economy, including business, government and not-for-profit (NFP) sectors. This paper presents an overview of the sources, consequences, and limits of these forces as they relate to accounting.

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Accounting: Labor, Capital and Product Markets

Shyam Sunder, Yale University

We can think of organizations as sets of contracts, and of accounting as mechanisms to define and implement the contracts. The contracting parties are agents from various factor markets in which an organization operates. Each agent supplies one or more factors of production and receives compensation in exchange. The contracts, and the nature of the organization depend on the conditions and the state of development of these markets. The degree of development of markets varies within as well as across economies, as do the organizational design and the accounting practices. To the extent globalization is accompanied by the development and convergence of market conditions obtained in various economies, differentiation of accounting across countries becomes less important. However, even if the market conditions across countries become identical over time, accounting differences may persist for reasons of historical contingency and hysteresis.

Although it is not always recognized, product markets have a special influence on determining the design of an organization and its accounting and control. Even within an economy or country different organizations may face different product market conditions, giving rise to differentiation in their accounting practices. Some organizations produce public goods while others produce private goods for sale. Even private good producing organizations differ with respect to the degree of market power they may exercise (Sunder 1998). Accounting differentiation arising from such differences in the product market conditions does not necessarily diminish with time, or the development of markets. Such

differentiation is especially important for government and not-for-profit (NFP) organizations.

We use the contract theory of the firm to identify the sources of accounting differentiation, and analyze the effects and limits of market developments on such differentiation. Globalization may diminish, but will not eliminate differentiation. A forced elimination of such differences may do more harm than good to the world capital markets.

Organizations as sets of contracts

We can think of organizations as sets of contracts, and their accounting as mechanisms to define, implement, and enforce these contracts. The contracting parties are the suppliers of various factors of production the firm needs, and the buyers of the products it sells (see Figure 1). The form and parameters of these contracts depend on the conditions prevailing and expected to prevail in these factor and product markets. Since these conditions vary in time and space, it is hardly surprising that the contracts that constitute firms and their accounting systems also vary (Sunder, 1997). The contract model of the firm and accounting therefore has the potential to serve as a foundation for cross-country and cross-sector comparisons in accounting practices. Such comparisons, in turn, can provide tests of the contract theory.

If an organization consists of contracts among a variety of agents, the relationship with various agents is mediated through a variety of markets. The best known of these markets are for labor, both managerial as well as other; financial capital, both equity and debt; and for products and services, bought and sold for a price. For the sake of completeness

we could add public services we “buy” from government bodies or the community in exchange for taxes and other forms of support payments.

To function and survive, organizations create mechanisms to help define, implement, and renegotiate all these contracts for labor, capital, and products and services. Accounting is a crucial element of this mechanism. The forms and details of the contracts depend on the conditions prevailing in these markets. Cross-border combinations and alliances are created to exploit the opportunities arising from diverse market conditions prevailing in different jurisdictions. They also face the special problem of having to design, implement, and enforce contracts that can deal with this diversity. We briefly review some examples of differences in markets, especially across international borders.

Markets for labor, financial and physical capital and information do not exist in all societies. Even when they do, they are not always in the same stage of development. Accounting and control systems depend on the degree of market development in the relevant societies. Since cross-border alliances may involve markets in different stages of development, special accounting problems arise in dealing with such entities. Consider a few examples.

Labor Markets

The classical double-entry bookkeeping model of accounting serves the needs of proprietorships. Accounting originated with traders who traded with many people, often repeatedly, or on credit. Accounting was differentiated from mere counting by establishing the cause-and-effect relationship between the sacrifice and benefit aspects of each transaction (see Ijiri, 1975). This cause-and-effect-driven organization of transactions in

double-entry bookkeeping gives it balance and usefulness as a powerful instrument of control over the flow of resources. This form of accounting, designed to implement the contract set of simple organizations, is bookkeeping. Most firms belong to this category.

When an organization expands to include two or more levels of management, its accounting must be adjusted to a stewardship form to manage its divergent interests. This form of accounting was developed to handle the accounts of temples and sovereigns since antiquity, as well as merchants or landed gentry who employed stewards to handle their estates. Organizations involve actions, thoughts, information, and motives of more than one person. Stewardship accounting handles this problem.

Planning and budgeting, divisional and managerial performance evaluation and compensation, decentralization, transfer pricing, capital budgeting, and activity-based costing are all concerned with the problem of control in organizations with managerial hierarchy. Stewardship or managerial accounting is built on the foundation of bookkeeping. But the accounting needs of hierarchical organizations include the above-mentioned additional features absent in Paciolo's description of the fifteenth-century European accounting practice.

With the development of labor markets (managerial labor market in particular), and with commerce and business schools to supply this market, this form of hierarchical organization and stewardship accounting becomes more common and important in the economy. Over the past century, development of this aspect of accounting in US has closely paralleled the development of the managerial market.

Managers accumulate skill capital on the job. Some skills are job or company specific, while others are transferable to other jobs, organizations, or industries. Entry-level cash compensation is lower, not only because such managers are less skilled but also because a good part of their compensation is in the form of an opportunity to enhance their human capital.

The extent of the development of markets for human skills varies greatly across countries, even among industrialized countries. Opportunities to build human capital on the job, the cost of finding and switching jobs (including seniority and retirement benefits), and the ability to move and live geographically away from home are some of the factors that determine the extent of the development of labor markets. In cross-border alliances, these labor market differences present some of the thorniest problems in the measurement of performance and establishing control. In one country employees may have civil-service style seniority wages and job security (e.g., for *hontai* workforce in Japan) while in the other country firms may use compensation based on measured performance, and provide little security to low or non-performers. Small labor market search costs may also allow firms to layoff employees more easily than in others. Depending on the development of the markets for financial capital (to be discussed shortly), some countries may make significant use of equity shares and options in defining the compensation schemes for their managers and other employees, while others may refrain from doing so. Finally, employee expectations of the behavior of others are formed largely by observation and experience, and may differ considerably across countries. These expectations are also called culture, and account for much of what is often attributed to cultural differences across countries (Sunder 2002).

When employees move across borders, they may see things they do not expect, and suffer “culture shock.”

Labor market conditions and labor contracts determine the degree of risk borne by employees. Employee risk bearing can take at least four different forms and varies significantly across countries. First, employees may also hold shares in the firm, forcing them to consider the effect of wage demands on the value of their equity. Second, there are vast differences across borders in the funding of employee pension plans; unfunded pension plans force the employees to share the risk of failure of the firm during their retirement years. Third, labor contracts may transfer a part of the risk to employees by allowing downward adjustment of compensation and working conditions in business downturns; or may link a part of compensation explicitly to the profitability of the business through bonus plans.

It would be easy to avoid these challenges of cross-border alliances by keeping employees in their home countries. However, the alliance may also forfeit most of the synergies its constituents may have hoped to reap from cooperation in the first place. We could benefit from a better understanding of the relationship between labor market development and measurement of performance and compensation in various countries. What do cross-border organizations do to handle such differences in countries they operate in? How can the accounting systems be modified so they would be robust to manipulation in performance-based compensation environments? Strong pay-performance links (see Cyert et al., 1995; Shah, 1996) in US managerial contracts make demands on US accounting systems that are largely absent in seniority based systems elsewhere. When these demands become sufficiently strong, they strain and threaten the integrity of the accounting system. In

the year 2002 there were many instances when the accounting systems of many US corporations simply collapsed under this strain.

What motivates people is the same question as what they want. Economics takes preferences and beliefs as given and does not really tell us how people arrive at their preferences and beliefs. Most theories of management are keyed to various assumptions about answers to this question. Some believe that people achieve their best when their period-by-period compensation is linked closely to their period-by-period measured performance. Others believe that such a scheme exposes individuals to more risk than they like to bear. It is better for the employer to bear most of the risk and smooth the individual's compensation not only across periods of good and poor performance, but also over the life cycle as the productivity and the consumption demand of the individual changes. Which of these or many other assumptions about human preferences produces happy workers remains an open question.

Markets for Financial Capital

When there is no market for capital, a single owner, or his personal friends, must provide all the capital. They can directly manage the firm, and give effective direction and supervision to hired managers. As capital markets develop and become more liquid, the numbers of individual sources of capital multiply. It is difficult for a large group of shareholders to manage the firm themselves, or to give effective direction to hired managers. The financial reporting model of accounting developed to meet this need.

Publicly held corporations place new demands on accounting systems. Investors who are distant from the operations of the firm need an accounting system to protect their capital

and to enforce the contract set. To protect themselves against nonperformance or malfeasance by managers they hardly know, they resort to rules and standards of financial reporting. The use of rules and standards limits the exercise of judgment by managers, and therefore the informativeness of the reports, even as the rule-makers strive to improve the value of the financial reports. Fearing self-serving manipulation by managers, financial reporting rule-makers have progressively narrowed the bands of managerial discretion. The elimination of discretionary reporting is a double-edged sword; even self-serving reports by managers in a discretionary regime end up revealing what kind of managers they are (Levine, 1996).

In active capital markets investors search for information about the prospects of the firm. Financial reports remain an important source of information, but there are other sources as well. This competition attenuates, but does not eliminate the investor reliance on financial reports as a source of information.

When shares of stock are actively traded in low transaction cost capital markets, the stock price can respond to information about the firm within minutes or hours. In the early years of the development of the financial reporting model, corporate managers used secret reserves to smooth out the financial reports over time to minimize share price movements in response to transient events. As capital markets develop, such practices become increasingly impermissible.

A third consequence of the financial reporting model has been the shift of emphasis from stock to flow variables (balance sheet to income and cash flow statements). When markets for fixed assets of industrial corporations are imperfect, their historical book values

become poor indicators of the future earning power of the corporation. The projection of current earnings and cash flows into the future for the purpose of security valuation carries its own significant risks. Investors' and analysts' need for a sustainable earnings figure that can be projected into the future gives rise to lengthy debates and detailed rules on the isolation of nonrecurring elements of income from the others.

Market-based research has influenced accounting thought by making the accountants aware of the existence of alternative sources of information for the stock market, the complex interaction among these sources, and the behavior of stock markets. It has replaced mechanical thinking with economic thinking about information. Accounting reports can mislead investors, but the existence of the market limits the extent to which this can happen.

The development of markets for securities as well as for goods and services has led some to argue, especially during periods of significant price movements, that the historical cost valuation be replaced by the market valuation of assets and liabilities. Because all markets are imperfect in varying degrees, the errors of measurement in market-based prices must be weighed against the errors of ignoring inflation (Lim and Sunder, 1990, 1991). Second, the benefits of inflation accounting for security valuation must be weighed against any reduction in the effectiveness of the financial reporting system for implementing and enforcing the firm's contract set. While several proposals for market valuation have been tried out in the US, none have survived.

For the vast majority of firms in the US, or in any other economy, ownership shares are not traded in liquid markets. They do not use the financial reporting model of accounting.

A great deal of demand for financial reports originates in the markets for financial capital including equity, bonds, bank loans and mortgages. Though financial capital is the most liquid and homogenous of all resources, the organization and development of these markets still differs considerably across countries. These differences cause financial reporting to vary across jurisdictions, and place special demands on reporting by cross-border organizations. Let me illustrate this by comparing the markets for corporate debt capital in the US and Japan.

In the US, borrowing firms shop around for the best terms. Banks are reluctant to provide credit to a borrower in serious trouble; firms can make prepayments on their loan, and vary the amount of credit according to their needs, maintaining only a relatively small level of compensating balances.

In Japan, lending banks often own significant equity of their creditors. With some features of equity, the amount of credit is more stable over time. Firms maintain higher compensating balances, raising the effective rates of interest. In difficult circumstances, the banks assist the companies. There is little term financing, with most credit consisting of three-or-four month fixed interest discounted notes that may be rolled over through informal agreements. While the interest rates have been deregulated in recent years, for a good part of the postwar half-a-century, the interest rates remained regulated. Banks did not compete on interest rates. The bank-borrower relationship is of a longer term and open-ended nature. Corporate bonds are not common, and are secured by fixed assets when used. Secured lenders have little interest in the financial statements of the borrower as long as they know that the assets used to secure the bonds exist and are well maintained.

Given a different contractual relationship between lenders and borrowers, the accounting and control system needed to implement and enforce this relationship is also different. In Japan and Germany, representatives of banks often sit on the board of directors of Japanese and German firms, and they need not depend on published financial statements to gather information about their debtors. Less emphasis on detailed financial standards for the preparation of financial reports in Japan is, in part, a result of the differences between how the markets for financial capital are organized.

After 1976, the Bank of Japan's primary policy objective shifted from growth to inflation control, and from directly controlling the volume of bank lending to reliance on market rates of interest for allocating funds in the industry. This change in fund allocation policy may have induced changes in the information and accounting systems. As the main bank relationships began to weaken in the 1980s, Japanese accounting also began to move in the direction of US-style, equity-based criterion for consolidation of financial statements.

This brief consideration of markets for financial capital raises two research questions. How well do the financial reports currently prepared in various countries serve the markets for financial capital in those countries? Most countries feel a tremendous pressure for change in financial reporting today. I would like to know if this pressure is retrospective—an attempt to make up the deficiencies of the financial reporting system relative to the prevailing market conditions, or is it prospective—an attempt to prepare for the future?

Debt Markets

In the US, while long-term relationships may develop between banks and firms, firms reserve the right to shop around and borrow from the bank that offers the best terms. Banks

feel little obligation to provide credit to a borrower in serious trouble. Firms can make prepayments on their loan, and vary the amount of credit according to their needs; but maintain only a relatively small level of compensating balances at the bank where they maintain a line of credit. The relationship between Japanese banks and their borrowers differs from this simplified US scenario in important ways

First, their relationship is not a simple creditor-debtor relationship because the banks are often also the major shareholders of the firms to which they lend money. In this respect, we might think of the relationship of the Japanese banks with their borrowers to be more like the relationship of Henry Ford to Ford Motor Company or of Warren Buffet to Geico Insurance. Large shareholders and creditors of a firm do not depend on public disclosure of financial reports. They often rely on private channels to keep themselves informed. Second, the amount of credit extended tends to be fairly stable over time and thus has some features of equity. Third, the firms must maintain a high level of compensating balances with the bank, perhaps as much as 25 to 40 percent; raising the effective rates of interest above the apparently low nominal interest rates in Japan. The lack of flexibility in the amount of funds lent to the firm and their lack of freedom to make prepayments on the loans and to shop for the best available deal further raise the effective rates of interest the firms pay. The bank returns the favor by assisting the company in difficult circumstances. Fourth, Japan has little of what is called “term financing” in the US. Most credit consists of three-or four-month fixed interest discounted notes that may be rolled over through informal agreements; even long-term capital investments may be financed in this manner. Fifth, it should be recalled that, while the interest rates have been deregulated in recent years, the

interest rates remained regulated in Japan for a good part of the postwar half-a-century. Therefore, banks could not compete on the rates they charged their customers. Indeed, they rarely competed for the customers at all, a feature taken for granted in the US. Finally, the bank-borrower relationship is a long-term, relatively open-ended relationship; it is hardly confined to the term of a single loan.

As previously mentioned, corporate bonds are not common in Japan. They are secured by fixed assets whenever they are used. Secured lenders have little interest in the financial statements of the borrower as long as they know that the assets used to secure the bonds exist and are well maintained.

This combination of two roles of Japanese city banks – serving as a major shareholder as well as the major, long-term lender – is not shared in the US environment. This is a different contractual relationship, and the accounting and control system needed to implement and enforce this relationship is also different. In Japanese corporations less emphasis on detailed financial standards for preparation of financial reports is, in part, a result of an arrangement for representatives of banks to sit on the board of directors of the firm; thus eliminating the bank's dependency on published financial statements to gather information about their debtors.

We need to look at the information and accounting consequences of the Bank of Japan's primary policy objective change in fund allocation policy after 1976. Is it possible that the large, bank-centered groups arose to garner the allocation of funds from the Bank of Japan in the pre-1976 era? While the bank shifted its funds allocation policy to market rates of interest, the economic advantages of the membership of the main bank groups may also

have diminished in the process. As the main bank relationships began to weaken in the 1980s, Japanese accounting began to move in the direction of US-style, equity-based criterion for the consolidation of financial statements.

Markets for Products

Accounting and control for organizations that produce private goods, such as cars or furniture, is different from accounting for organizations that produce public goods such as security or clean air. Organizations that produce private goods have customers who can withhold revenue from the firm if they are not satisfied with the goods or services they receive. Organizations that produce public goods have beneficiaries, instead of customers, who do not have the power to directly withhold revenue. Therefore, the beneficiaries are not able to impose the kind of direct discipline on the managers that the customers can impose. Such organizations use a bureaucratic management. This fundamental difference leads to very different organizational structures and accounting and control systems in the two types of organizations.

More generally, the design of the organization and its accounting and control system depends on the amount of market power the organization has in its product market. The lower the market power, the easier it is for the organization to use the techniques of private good organizations. As the market power increases, alternative designs become necessary to install adequate control on management to ensure the efficiency of operations. Accounting for private and public good organizations provide the two ends of the spectrum.

The Problem of International Comparisons

Accounting practices and rules, as well as business environments, vary across countries. A comparison of accounting practices and rules is easier and receives more attention than a comparison of business environments, which is more complicated. Consequently, the problem of international comparisons of financial reports becomes more difficult than it would be if only the accounting practices and rules and standards were heterogeneous. Even if the same set of accounting rules were used in preparing the financial statements of all firms in the world, the financial statements would still be far from perfectly comparable. The problem is more fundamental than one that can be solved by the International Accounting Standards Committee (IASC) or other such groups.

One way to approach this fundamental limitation of financial reports is to think about accounting rules as a set of classification criteria. If we take a collection of objects that vary with respect to more than one attribute, use of any criterion or set of criteria to classify the objects necessarily creates either one or both of the following conditions: (1) objects within the same cell differ in some respects; and (2) objects that are similar in some respects are placed in different cells. Increasing or decreasing the number of criteria (and cells) used for any classification scheme merely rearranges the number of misclassifications of each type without eliminating them. In other words, in an environment where objects of classification are heterogeneous along more than one dimension, no scheme of classification can be totally satisfactory. The pursuit of a perfectly uniform classification scheme is guaranteed to fail.

Consider Figure 2 as a simple example. We have four objects that vary by size and color, each variable taking two values (small and large, black and white) to yield a total of

four types of objects. We consider four schemes of classifying these objects – no differentiation, differentiation by color, differentiation by size, and differentiation by size and color. How well do these four classification schemes satisfy the following two uniformity criteria?

Criterion 1: Any two objects that share any attribute should be placed in the same cell.

Criterion 2: Any two objects that are different with respect to any attribute should be placed in different cells.

Table 1 shows the number of violations of each criterion under each of the four classifications shown in Figure 2.

Since the importance of each violation is not necessarily equal, the number of violations is only a crude indicator of the fundamental conflict between the two criteria in defining a uniform scheme of classification. According to Criterion 1, Classification 1 is more uniform than 2 and 3, which are more uniform than 4. On the other hand, by Criterion 2, Classification 4 is more uniform than 2 and 3, which are more uniform than Classification 1. In other words, in a multiattribute environment, the meaning of uniformity of classification becomes quite ambiguous.

Consider the following statement: “Foreign GAAP [generally accepted accounting practices] statements are close substitutes for the US GAAP statements if important the US GAAP accounting data can be inferred from foreign GAAP reports.” If this were the case, insisting on reconciliation would seem silly – but so would the claims that foreign firms are unwilling to provide the US GAAP numbers (Pownell, 1993, p. 224). One interpretation of such a statement is that if the reader of a foreign GAAP statement could infer the numbers the

US GAAP would have yielded when applied to that firm, the foreign GAAP statement does not tell the reader anything more or less than the US GAAP applied to the foreign environment. This interpretation ignores the possibility that the foreign GAAP, being tailored to specific economic environments, may not be either more or less informative, but simply different and noncomparable.

The rectangular street layout (e.g., used in the city of Chicago) need not be better or worse than the irregular pattern of streets (e.g., used in the city of Pittsburgh). The value of the choice of street layout cannot be meaningfully evaluated without considering the flat terrain of Chicago and the Allegheny Mountains in which the city of Pittsburgh is located. Applying the Chicago layout to Pittsburgh and vice versa, independent of the topography of the area to which they are applied, is not a useful exercise for the purpose of evaluating their respective merits.

This fundamental problem of defining a uniformity criterion pervades accounting as well as many other domains (such as linguistics, where classification plays an important role). In international accounting, the problem is accentuated by the increase in the number and variety of attributes of transactions across the world. The standard-setters, domestic as well as international, have to trade off the advantages of standardization against the disadvantages (see Sunder, 1988, 1997) in choosing the extent of standardization they recommend. Other things being equal, the wider the scope of application of a standard, the less constrained they have to be to satisfy this trade-off.

Concluding Remarks

The design of contracts that define firms, and therefore their accounting systems, depend on the conditions in the firms' factor and product markets. A comparison of market conditions across countries is a good starting point for understanding, perhaps even predicting, cross-border differences. Neither the market conditions nor the financial reporting standards and practices are static. It would be difficult to defend the current reporting practices in any country as optimal, relative to the current or anticipated future market conditions. Even as financial reporting practices and standards adjust to accommodate changes, it is useful to keep in mind the basic reasons for their differences; and the limitations of harmonization in a world that is, and will likely remain, diverse in many respects for years to come. Instead of making a premature commitment to a single set of worldwide standards, there may be value in allowing alternative sets of standards to compete in the marketplace (Dye and Sunder, 2001).

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Figure 1: Firm as a Set of Contracts

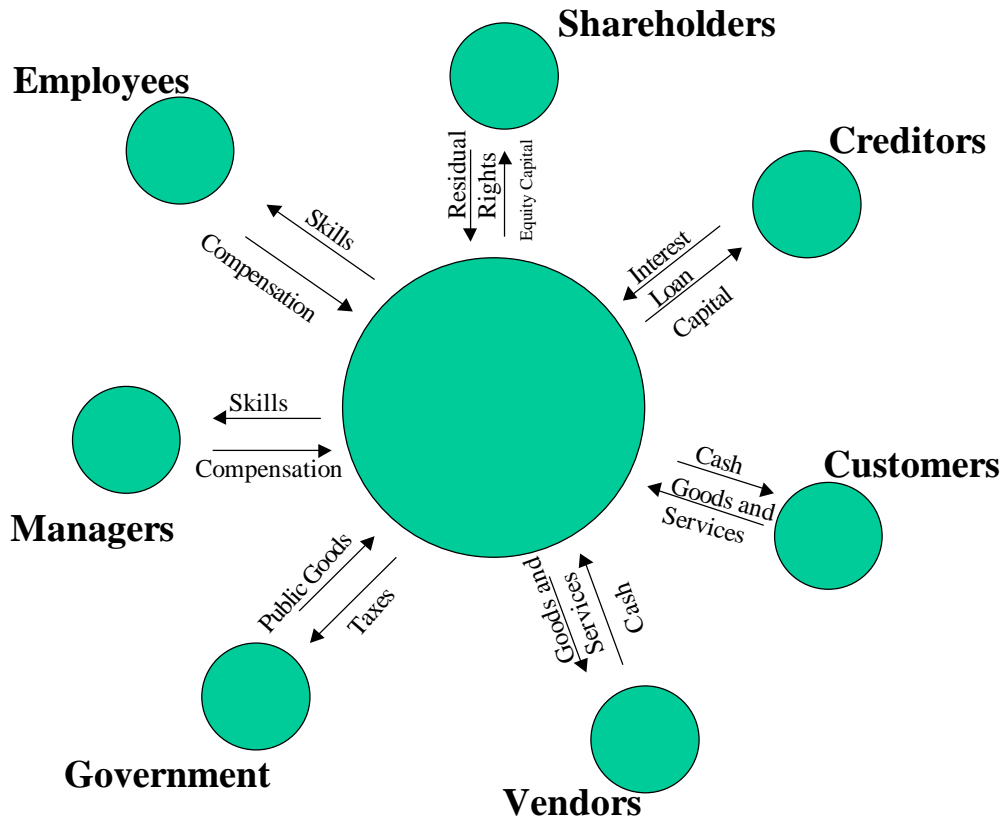
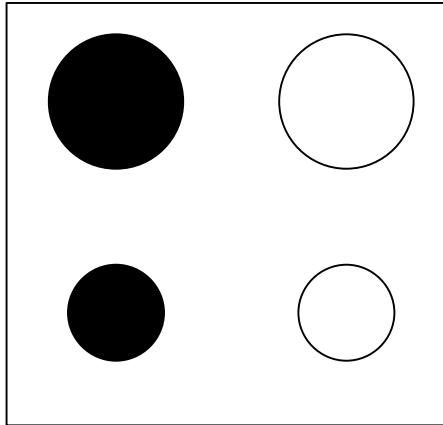


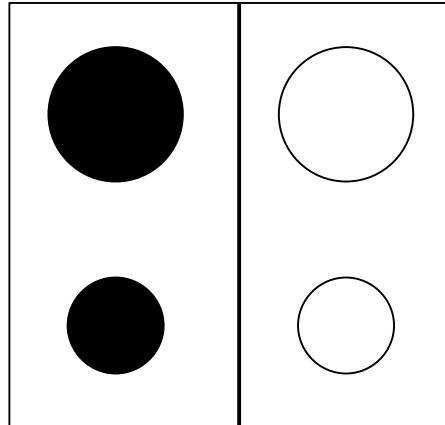
Figure 1. Firm as a Set of Contracts. (Source: Sunder, 1997, p. 15)

Figure 2

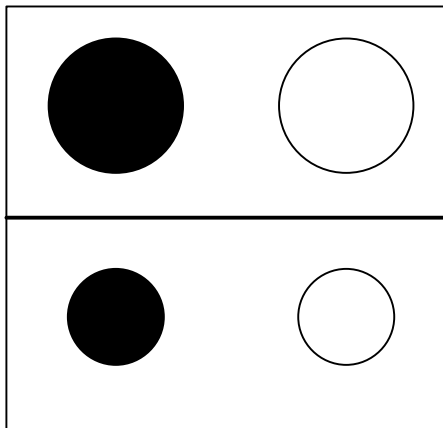
Classification 1



Classification 2 (by color)



Classification 3 (by size)



Classification 4 (by size and color)

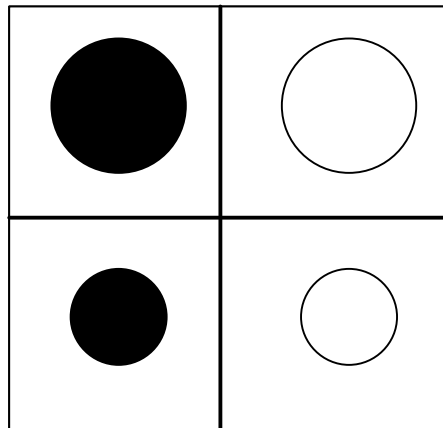


Table 12-1: Number of Violations of Two Uniformity Criteria		
	Criterion 1	Criterion 2
Classification 1	0	8
Classification 2	2	2
Classification 3	2	2
Classification 4	4	0