Determinants of Accounting Differentiation: Economic Sectors or National Boundaries

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Determinants of Accounting Differentiation: Economic Sectors or National Boundaries
Accounting practices differ across geographic and political boundaries, as well as across sectors of the economy within these boundaries. Globalization serves as a homogenizing force across the political boundaries. Development of markets for various factors of production exerts a similar integrative force across sectors of the economy, such as business and government and not-for-profit (NFP) sectors. In this paper, we examine the sources, consequences, and limits of these forces.

Briefly, 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 and receive compensation in exchange. The contracts, and the nature of the organization, depends on the conditions, and the state of development of these markets. The degree of development of markets varies within as well as across economies. Inevitably, the organizational design, and the accounting practices also vary across economies. To the extent globalization is accompanied by development and convergence of market conditions obtaining in various economies, this rationale for differentiation of accounting across countries becomes less important. Even if the market conditions across countries become identical over time, accounting differences may persist for reasons of historical contingency and hysteresis.

Of all markets, product markets have a special influence on determining the design of organization and its accounting and control. Even within an economy or country, different organizations may face very 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. Accounting differentiation arising from the product market conditions may not necessarily diminish with time, or development of markets. Such differentiation is especially important for government and NFP organizations.

In summary, we use the contract theory of the firm to identify the cross-country and cross-sector sources of accounting differentiation, and analyze the effects and limits of market developments on such differentiation. Globalization may diminish, but will not eliminate differentiation.

**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. 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.
Role of Accounting

Markets in which organization functions shape its design

Different economies have different markets developed to different degrees

Hence the accounting differences across economies

**Industrial Organization**

Interrelationships among U.S. firms are relatively weak unless they are linked in a parent-subsidiary relationship through equity ownership. Therefore, in the United States, with few exceptions, equity ownership is a necessary and sufficient condition for existence of a close relationship between two firms. Consequently, in trying to develop the financial statements for a group of interrelated firms, the accountant in the United States looks primarily at their equity ownership relation and then applies the consolidation, equity method or lower-of-cost-or-market, depending on the extent of this ownership.

In Japan, on the other hand, there exist two types of groups of business firms that are different from the U.S. groups and from each other. The so-called ex-zaibatsu or horizontal groups of firms are said to be related primarily by equity interest held by a main bank in all members of the group. Each member of the group may, itself, be a giant corporation. Toyota, for example, is a member of the main bank group of Sakura Bank. Presidents of these firms meet monthly to consult and coordinate their activities. Keiretsu groups, on the other hand, are groups of industrial companies that are linked together not only by mutual equity holdings but, more importantly, by operational arrangements within the group such as customer-supplier-distributor relationships. Toyota, for example, is the nucleus of a huge
significant mutual stockholdings are not common among U.S. industrial firms.

The hierarchical structure of corporate groups in the United States stands in sharp contrast to the nonhierarchical character of the Japanese corporate groups. The equity criterion that serves reasonably well for developing the group financial statements in the United States does not yield useful results in the Japanese environment (see Chapter 4). While the Japanese do use the U.S. criteria for consolidation for the time being, the result is a square peg in a round hole. Any criteria that might be developed in Japan will not yield useful results if they were applied in the United States. To the extent that the corporate groups in the two economies are organized by different criteria, no one single criterion can yield results without difficulties of comparing results across the two economies.

In other words, the problem of comparability of financial statements arises not only from the absence of accounting rules, but also from the differences that exist among business environments and organizations of different economies. Interaction among economies may, over time, bring them closer and diminish these differences, but the accountants have no power or mandate to erase such environmental differences. The effectiveness of anything that accountants do to standardize accounting rules across the globe will always be bounded by this fundamental limitation of the underlying differences across economies.

**Defining the Accounting Entity**

The existence of corporate groups at the main bank level and at the lower, *keiretsu* level points to the arbitrariness of defining the boundary of an organization. In U.S. economic analyses until some 50 years ago, the dominant unit of analysis was the industry,
not the firm. Today, most analyses are carried out at the firm level. The existence of groupings of firms at various levels (zaibatsu and keiretsu) makes the arbitrariness of this choice more obvious. How we define a unit of organization depends not on the legal definitions but on the purpose of analysis. A firm has no absolute boundary. We can draw virtually any boundary we want and then analyze the nature of contracts that fall within that boundary. It is often said that the Japanese firms limit the size of their core group so they would not have to lay off people in event of a business downturn, and contract out work to subsidiaries and subcontractors who offer a lower level of job security to their employees. If we wish to include the subsidiaries and subcontractors within the contract set for analysis, their contracts will simply include their share of risk bearing. Who bears how much risk hardly provides a useful guide to draw the boundaries of a firm.

This ambiguity in defining the boundary of the firm is reflected in the uncertainty that has surrounded the consolidation and segment reporting dimension of standard setting in the United States during recent decades. Few business units are totally independent of all other businesses outside and have completely homogeneous, nonhierarchical unitary structure within. External dependencies create demand for consolidation to produce a more complete picture of the whole, while internal heterogeneity generates the diametrically opposite demand for segmentation of differentiated subunits within. As boundaries of the unit for which financial statements are prepared are expanded, demand for further consolidation weakens, and the demand for segment reporting intensifies; as the boundaries shrink, pressures for segmentation are relieved, but pressures for consolidation are exacerbated. Just as the size of a balloon or a bubble is determined by the equation of internal and external
pressure of air, we can therefore think of boundaries chosen for an accounting entity as the result of equilibrium between these two kinds of pressures.

Since the interdependencies among businesses across countries are different, the economic pressures for consolidation/segmentation of financial reports also can be quite different. Consequently, there is no reason to assume that the equilibrium boundary of accounting entities achieved through the equilibrating process just described will be, or should be, the same across economies.

**Debt Markets**

In the United States, while the 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. They 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 United States scenario in important ways. First, this 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 Salomon Brothers. Large shareholders and creditors
of a firm do not depend on public disclosure of financial reports. They often rely on private
cannels 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. 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 United States. 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, for a
good part of the postwar half century, the interest rates remained regulated in Japan.
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 United States.
Finally, the bank-borrower relationship is a long-term, relatively open-ended relationship; it
is hardly confined to the term of a single loan.

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 U.S. environment. This is a different contractual relationship, and the accounting and control system needed to implement and enforce this relationship is also, not surprisingly, different. In Japanese (and German, see Chapter 14) corporations, representatives of banks sit on the board of directors of the firm, and they need not depend on published financial statements to gather information about their debtors. Less emphasis on detailed financial standards for preparation of financial reports in Japan is, in part, a result of this arrangement.

After 1976, the Bank of Japan’s primary policy objective shifted from growth to inflation control. Instead of directly controlling the volume of bank lending, the bank increased its reliance on market rates of interest to allocate funds in the industry. We need to look at the information and accounting consequences of this change in fund allocation policy. Is it possible that the large, bank-centered groups arose to garner allocation of funds from the Bank of Japan in the pre-1976 era. As the bank shifted its funds allocation policy to market rates of interest, the economic advantages of membership of main bank groups may also have diminished in the process. As the main bank relationships began to weaken in the 1980’s, Japanese accounting also began to move in the direction of U.S.-style, equity-based criterion for consolidation of financial statements.

Managerial and Labor Markets

Managers accumulate human capital of managerial skills 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 low, partly because entry-level managers have
lower skills and partly because the other part of their compensation is in the form of the opportunity to enhance their human capital.

In the United States, compensation in the form of opportunity to build human capital is available to managers. To a lesser degree, it is also available to other employees. In Japan, this form of compensation seems to be available to many more employees. Indeed, manager-employee distinction is not a very useful one in the Japanese context. All employees are afforded the opportunity to accumulate human capital over their careers. The so-called seniority wage system of Japan may be the result of extending this opportunity to a broader class of employees than is prevalent in the United States. Employees who sacrifice their younger years working for low wages naturally expect to be compensated in their senior years. It is often said that the Japanese firm is run for the employees, not for the shareholders. The difference between the corporate contracts in the United States and Japan along this dimension could be seen as a consequence of human capital accumulation. The fact that the same “labor” sits on both sides of the table in labor negotiations also explains more congenial labor relations in Japan.

A great deal has been said and written about the so-called lifetime employment policies of Japanese corporations (see Mak, et al., 1998, Chapter 14). We need to look at this relationship closely in order to work out its consequences for corporate structure, management, and accounting. First, the lifetime employment policies, to the extent they exist, are limited to the core hontai workforce of the top tier of Japanese corporations. No such protection exists for the employees of subsidiary firm, or for employees of subcontractors. Indeed, the need to protect the jobs of the hontai workforce through business
cycles is one of the explanations given for the existence of *keiretsu* business groups. This structure allows the core workforce at the parent corporation to be kept slim and get the overflow work done by subsidiaries and subcontractors. Thus, General Motors has several times more employees than Toyota, not necessarily because the latter is more productive but simply because more of the work is done by people who are not labeled employees of Toyota.

Even for the core workforce, the protection may be limited to the job, not to salary, bonus, or working conditions. In the United States where compensation and working conditions are difficult to adjust downward, the slack is taken up by varying the number of employees instead of the terms of employment. It has been argued that in a serious economic downturn, even the core workforce of the top-tier corporations in Japan may not be retained. Under this view, lifetime employment in Japanese corporations is an ex post realization of exceptionally stable growth in postwar Japan; it is not the result of an ex ante commitment. Given its realization over the lifetime of a generation and a half, the workforce can hardly be blamed for expecting such employment as an ex ante promise anyway. Corporations have already reaped the benefits of this employee expectation in the form of employee loyalty and hard work.

It is sometimes said that the large Japanese corporations are run by their employees for their employees, not for their shareholders. Perhaps it is merely a restatement of what Berle and Means (1932) pointed out about the managerial revolution in the U.S. economy. It would be useful to compare the returns to labor and capital in Japan’s corporate sector and to compare them to other sectors of Japanese economy as well as elsewhere in the world. Is it
the case that the returns to labor in Japan have been higher, and returns to capital been lower in comparison with some appropriate benchmarks? If the data do not support such a proposition, it would be difficult to sustain belief in their accuracy. One may then be led to believe that the differences in contractual forms and their implementation chosen for the Japanese conditions have been mistaken for who the corporations are being “run for.” In other words, it is easy to mistake managerial procedures for the economic substance of what they actually do.

We can illustrate the meaning of “self-enforcing” contract by an example of Japanese managerial market. The Japanese economic miracle of the postwar era is often attributed to the hard work and high productivity of Japanese labor. That raises the next question; Why did they work so hard? One can attribute hard work to habit or a national personality trait. Or one can attribute this hard work to the contract design or institutional arrangements in Japanese companies. Under these arrangements, Japanese workers may have found it in their own best interests to work so hard and to sacrifice their leisure and family time. This latter explanation is a self-enforcing contract explanation. It also conveys the sense in which we use the term “contracting” here.

Strong pay performance links (see Cyert et al., 1995; Shah, 1996) in U.S. managerial contracts make demands on U.S. accounting systems that are largely absent in the Japanese systems. When pay depends more on seniority than on performance in a particular job, performance evaluation aspects of accounting need receive less emphasis.
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 do 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 consumption demand of the individual changes. Which of these or many other assumptions about human preferences produces happy workers remains an open question.

Traditionally, Japanese firms are believed to have followed the latter set of assumptions, while U.S. firms are supposed to have followed the former. However, there are enough exceptions on either side to question such generalizations. In the early 1990’s, Nomura Securities and many others started experimenting with performance-based compensation for a small group of their brokerage account managers.

Employee Risk Bearing

We have discussed the joint role of shareholders and creditors that Japanese banks play in the contract set of their clients. Japanese employees also wear a second hat of equity owner and risk bearer in three ways. First, employee share ownership plans are more common in Japan than in the United States. As individual shareholders of the firm, employees must take the longer-term effect of their wage demands on the value of their equity. Second, Japanese pension plans, unlike U.S. plans, tend not to be funded. Pension
plans represent a second and significant amount of employees’ equity tied up in the future success of the firm. There is a third and less transparent source of employee risk sharing in the form of downward flexibility in the terms of employment in Japan that is absent in the United States. In a business downturn, Japanese workers may not lose their jobs, but their salaries, working hours, and perks are subject to adjustment. All three types of risk sharing place the employees in a dual role with respect to the firm as a shareholder. When we consider this factor, statements such as “Japanese firms are run for their employees, not for their shareholders” lose much of their punch.

**Government**

Japan’s Ministry of International Trade and Industry (MITI) is said to have had a great impact on promoting the economic miracle of postwar Japan. The actual amount of money that MITI could direct to specific firms or industries is relatively small. The same can be said of its power to regulate the industry. Yet, it was able to follow a highly successful industrial policy that can be seen as an example of assembly of a system of contracts. Through its forecasts, plans, and coordinating and consultative committees, MITI was able to help firms in various industries develop coherent plans that helped them reduce surprises and risks for all agents involved in the process. In assembling a system of contracts, it is crucial to know what can reasonably be expected of others and let the others know what they can reasonable expect of you. This process of expectation formation was facilitated by MITI’s industrial policy. Its plans and forecasts constituted an initial framework that served as the starting point for formation of plans of others even if the final plans ended up being radically
different for the initial projections placed on the table. A similar argument has been made by Aoki (1984) about the useful role played by the point forecasts of economic growth issued by the Bank of Japan, even if they proved to be wildly inaccurate.

Competition engendered in the industries supervised by MITI stands in sharp contrast to that in the financial sector, especially the banking industry, which is supervised by the Ministry of Finance. This powerful and prestigious ministry seems to have very different ideas about its own role. From all appearances, Japanese banking industry is inefficient and uncompetitive. The Ministry of Finance seems to find every possible avenue to block not only competition from abroad but also competition among the Japanese banks themselves, leaving them ill-prepared to deal with international competition in the financial sector.

**Market for Corporate Control**

Given the institutional holding of shares (by banks and *keiretsu* partners) which are essentially immobilized, Japanese firms have little risk of being taken over by a hostile suitor. Consequently, they have had little use for takeover defenses, shark repellents, and cash management practices that are considered routine for U.S. firms that value their independence. In practice, the independence does not protect the interests of the shareholders, only of the managers in senior positions. These positions in Japan are hardly threatened anyway.

**Market development and accounting convergence**

**Focus on product market: Degree of market power**

**Market power and accounting differentiation across sectors of economy**
Development of sectors does not necessarily eliminate market power

Hence the limits on convergence of accounting across sectors

Summary and conclusions

THE PROBLEM OF INTERNATIONAL COMPARISONS

Accounting practices and rules, as well as business environments, vary across countries. Comparison of accounting practices and rules is easier and receives more attention. Comparison of business environments 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, financial statements would still be far from perfectly comparable. The problem is more fundamental than what can be solved by the International Accounting Standards Committee (IASC) or other such efforts.

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. Pursuit of a perfectly uniform classification scheme is guaranteed to fail.

Consider Figure 12-1 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 12-1 shows the number of violations of each criterion under each of the four classifications shown in Figure 12-1.

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 United States GAAP statements if
important the United States 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 United States 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 U.S. GAAP would have yielded when applied to that firm, the foreign GAAP statement does not tell the reader anything more or less than the U.S. 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 the 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. It is to be expected, then, considering the advanced stage of development of capital markets in the United States, that the international standards tend to be more flexible (allowing more options to preparers of financial statements) than the domestic standards developed for internal use in the United States.

JAPAN-U.S. INSTITUTIONAL AND FACTOR MARKET COMPARISON

Comprehensive comparisons of financial reporting practices of the United States and Japan are available elsewhere (e.g., Nobes, 1991). In this section I compare the conditions in some factor markets that are important determinants of financial reporting. These comparisons help us to understand the differences in U.S. and Japanese market conditions that underpin their accounting differences.

CONCLUDING REMARKS

This chapter is based on the view that firms are contracts among individuals, and accounting is a part of the mechanism for implementing these contracts. Design of contracts that define firm, and therefore their accounting systems depends on the conditions in the firm’s factor and product markets. This view implies that a comparison of these market conditions across countries is a good starting point for understanding, perhaps even predicting, the differences across prevailing accounting systems in various societies. We
focus on a comparison of U.S. and Japanese financial reporting environments in two steps. In the first, we examine the fundamental difficulty of defining and developing "uniform" accounting for diverse economic environments across countries. In the second, we compare the differences in conditions prevailing in some key markets in Japan and the United States. There are important differences in industrial organization, accounting entities, markets for capital, managers, and labor, employee risk bearing, role of government, and market for corporate control. These differences have important implications for accounting and control systems used to implement the contracts that constitute business firms.

Neither the market conditions nor the financial reporting standards and practices are static. It would be difficult to defend the current reporting practices in either country to be optimal relative to the current or anticipated future market conditions. It is a truism that the world economy has been undergoing rapid change, opening, and harmonization during the recent decades. Even as the financial reporting practices and standards adjust to accommodate these 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 premature commitment to a single set of worldwide standards, there may be value to allowing alternative sets of standards to compete in the marketplace (Dye and Sunder, 1998).
REFERENCES


Figure 12-1

Classification 1

Classification 2 (by color)

Classification 3 (by size)

Classification 4 (by size and color)
<table>
<thead>
<tr>
<th>Classification</th>
<th>Criterion 1</th>
<th>Criterion 2</th>
</tr>
</thead>
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<td>8</td>
</tr>
<tr>
<td>Classification 2</td>
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<td>2</td>
</tr>
<tr>
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<td>2</td>
</tr>
<tr>
<td>Classification 4</td>
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<td>0</td>
</tr>
</tbody>
</table>

Table 12-1: Number of Violations of Two Uniformity Criteria