Towards a General Model of the Reasons for International Differences in Financial Reporting

The article first examines the existing modelling literature, which contains a large number of suggested reasons for international differences in accounting. After examining terminological problems, a preliminary parsimonious model is developed to explain the initial split of accounting systems into two classes. The term ‘accounting system’ is used here to mean the financial reporting practices used by an enterprise. A country might exhibit the use of several such systems in any one year or over time. Consequently, it should be systems and not countries that are classified. The model proposes a two-way classification using two variables: the strengths of equity markets and the degree of cultural dominance. Implications for classifiers and rule-makers are suggested.

Key words: Classification; International accounting.

INTRODUCTION AND PREVIOUS MODELLING

Many reasons have been suggested in the literature for international differences in financial reporting. Some authors state that they are merely listing plausible reasons; few provide precise hypotheses or tests of them, as noted by Meek and Saudagaran (1990). Wallace and Gernon (1991) complain about the lack of theory in international comparative accounting. This article seeks to address this.

The literature (e.g., Choi and Mueller, 1992, ch. 2; Radebaugh and Gray, 1993, ch. 3; Belkaoui, 1995, ch. 2; Nobes and Parker, 1995, ch. 1) offers a large number of possible reasons for international differences (see Table 1) but no general theory linking the factors. Schweikart (1985) and Harrison and McKinnon (1986) provide some elements of a general theory, without specifying which factors are major explanatory variables for accounting practices. Two somewhat similar theoretical models of the reasons for accounting differences are those of Gray (1988) and of Douplnik and Salter (1995; hereafter DS). Gray suggests a model based on cultural factors, as examined later. DS provide a synthesis of previous discussions, leading to a framework, which is simplified here as in Figure 1 so that an alternative can
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Table 1
REASONS PREVIOUSLY PROPOSED FOR INTERNATIONAL ACCOUNTING DIFFERENCES

1. Nature of business ownership and financing system
2. Colonial inheritance
3. Invasions
4. Taxation
5. Inflation
6. Level of education
7. Age and size of accountancy profession
8. Stage of economic development
9. Legal systems
10. Culture
11. History
12. Geography
13. Language
14. Influence of theory
15. Political systems, social climate
16. Religion
17. Accidents

Figure 1
A SIMPLIFICATION OF DS’S MODEL OF DEVELOPMENT

Source: Adapted from Doupnik and Salter (1995), exhibit 1.

be proposed later. One difficulty emerging from Figure 1 is that four of DS’s ten variables (see Table 2) are cultural (based on Gray) and six are institutional, but culture is seen as giving rise to the institutions. This suggests the possibility of double counting. A related difficulty with DS is that there is no attempt to connect their six institutional factors to see whether they might cause each other. In particular, it is suggested later that four of the six (taxation, inflation, level of education and stage of economic development) are not necessary. DS thus have provided a mix of theories, not a general theory.

A number of terminological issues are raised by studying this literature. These need to be addressed before attempting to develop a general model.
SOME TERMINOLOGICAL ISSUES

One of the problems of identifying reasons for differences, and perhaps then classifying accounting systems, is a lack of clarity about what is being examined or classified. This article discusses accounting practices, using ‘accounting’ to mean published financial reporting. In some jurisdictions, the rules of financial reporting may be identical, or very similar, to the practices, but sometimes a company may depart from rules or may have to make choices in the absence of rules. The Price Waterhouse data, used by many researchers,¹ seem to contain a mix of de facto and de jure aspects ‘in a perplexing way’ (Rahman et al., 1996).

Another difficulty concerns the word ‘system’ (Roberts, 1995). DS use it to cover such things as regulatory agencies. Others (e.g., Nair and Frank, 1980) have concentrated on a corpus of accounting rules or practices. This article follows the latter route, that is, an ‘accounting system’ is a set of practices used in a published annual report. Although this is a narrow definition, these practices will reflect the wider context in which they operate.

Another issue is whether to separate disclosure from measurement practices. Nair and Frank (1980) show that this can be important. Nobes (1983) looks at measurement practices only. DS acknowledge the distinction but add the categories together. It seems appropriate to include the presence or absence of certain key disclosures (e.g., earnings per share, cash flow statements) as elements of a system, and this is discussed later.

A further issue is to determine whose accounting practices are being examined. The Price Waterhouse data seem, in practice, to have reported on companies audited by Price Waterhouse (see Nobes, 1981). DS (p. 198) specify the measurement and disclosure practices of ‘companies’, which is vague, particularly for disclosure practices. Nobes (1983, p. 5) chose the measurement practices of ‘public companies’, which the context suggests meant those with securities which are traded publicly.

A related point is that all the researchers look at classifications of countries by their accounting environments or systems. Roberts (1995) highlighted this problem,

¹ For example, Da Costa et al. (1978); Frank (1979); Nair and Frank (1980).

TABLE 2

<table>
<thead>
<tr>
<th>Cultural</th>
<th>Institutional</th>
</tr>
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<tbody>
<tr>
<td>Individualism</td>
<td>Legal system</td>
</tr>
<tr>
<td>Power distance</td>
<td>Capital market</td>
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<tr>
<td>Uncertainty avoidance</td>
<td>Tax</td>
</tr>
<tr>
<td>Masculinity</td>
<td>Inflation levels</td>
</tr>
<tr>
<td></td>
<td>Level of education</td>
</tr>
<tr>
<td></td>
<td>Level of economic development</td>
</tr>
</tbody>
</table>

ABACUS
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noting that a country could have more than one system, for example, one system for companies with publicly traded securities, and another for small private companies. Similarly, some large public companies may adopt very different practices from what is ‘normal’ for most large companies in the country. This is becoming especially obvious in continental Europe, with the use of U.S. rules or International Accounting Standards (IAS) by some very large companies. Therefore, it may be useful to refer to a country’s ‘dominant accounting system’, which might be defined as that used by enterprises encompassing the majority of the country’s economic activity. Hereafter, references to a country’s ‘system’ should be taken to mean its dominant system.

In some countries, the law requires or commercial pressures dictate that a large number of companies use the same system. For example, in the U.K., most provisions of the Companies Act 1985 and of accounting standards apply to all companies. In other countries, a particular accounting system might be legally or commercially imposed on a small minority of companies, as in the U.S. where ‘generally accepted accounting principles’ are legally imposed on only that small proportion of companies registered with the Securities and Exchange Commission. In both these rather different cases, there is still clearly a dominant system as defined above.

Nevertheless, as there can be more than one system in a country it would be more useful to specify accounting systems, and then to note that particular companies in particular countries at particular dates are using them. Of course, for labelling purposes, it might be useful to refer, for example, to the system used in 1998 by U.S. public companies. With labels, it will then be possible to identify separate influences on, and to show separate places in the classification for, for example, ‘normal’ German public companies in 1998, compared to the group accounts of such companies as Daimler-Benz, Deutsche Bank and Bayer in 1998.

Also, a country’s accounting system may change dramatically over time, for example, as a result of economic or political revolutions (c.f. China, Russia, Poland, etc.). Less dramatically, accounting in a country can change quite significantly as a result of new laws (e.g., Spain from the late 1980s as a consequence of EC Directives).

Lastly, companies in two countries (e.g., the U.K. and Ireland) can use extremely similar accounting practices (i.e., perhaps the same ‘system’). In a similar manner to the characteristics of human individuals, the detailed elements of a company’s accounting practices can differ so much that the number of different sets of practices is effectively infinite. Nevertheless, it is useful for some purposes to recognize that humans all belong to the same species. The individual members

2 I am grateful to my colleague, Autar Singh, for discussions that clarified my thoughts on this.

3 Researchers would have to decide whether to start from the smallest enterprise or from the largest. Presumably, it would make sense to start from the largest, since this would involve far fewer enterprises, and since the small enterprises would not be publishing any financial reports in most countries.

4 See, for example, Gonzalo and Gallizo (1992), ch. 3.
of the species are all different but have certain features in common. By analogy, a
certain degree of variation among company practices may be allowed without
having to abandon the idea that the companies are all using the same system.

AN INITIAL STATEMENT OF A GENERAL MODEL

The proposal here, which will be explained more fully later, is that the major
reason for international differences in financial reporting is different purposes for
that reporting.

Financing Systems
In particular, at a country level, it is suggested that the financing system is relevant
in determining the purpose of financial reporting. Zysman (1983) distinguishes
between three types of financing system: (a) capital market based, in which prices
are established in competitive markets; (b) credit-based system: governmental, in
which resources are administered by the government; and (c) credit-based system:
financial institutions, in which banks and other financial institutions are dominant.

Zysman suggested that the U.K. and the U.S.A. have a type (a) system; France
and Japan a type (b) system; and Germany a type (c) system. According to Zysman,
in all systems companies rely considerably on their own profits for capital but their
external sources of funds differ. Where external long-term finance is important,
securities are the main source in the capital market system. In such countries, there
is a wide range of capital instruments and of financial institutions, and the latter
have an arm’s-length relationship with companies. Investors change their holdings
through the secondary securities markets, which are large. In credit-based systems,
the capital market is smaller, so companies are more reliant on whoever grants
credit. This usually means banks, whether under the influence of governments or
not. Cable (1985) examined the importance of banks in the German economic
system. In this system, investors will find it more difficult to adjust their holdings,
so they may be more interested in long-run control of the management.

For the purposes of this article, a development of the Zysman classification is
proposed, as in Table 3. For this, the concept of ‘insider’ and ‘outsider’ financiers
needs to be developed. This idea of insiders and outsiders, which has its roots in
the finance literature, has been used before for accounting purposes (e.g., see
Nobes, 1988, p. 31), and to discuss contrasting corporate governance systems (e.g.,
Franks and Mayer, 1992; Kenway, 1994). ‘Outsiders’ are not members of the board
of directors and do not have a privileged relationship with the company (e.g., such

<table>
<thead>
<tr>
<th>Financing Systems</th>
<th>Strong credit</th>
<th>Strong equity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insiders dominant</td>
<td>I</td>
<td>III</td>
</tr>
<tr>
<td>Outsiders dominant</td>
<td>II</td>
<td>IV</td>
</tr>
</tbody>
</table>
as that enjoyed by a company’s banker who is also a major shareholder). They include both private individual shareholders and some institutions. For example, insurance companies and unit trusts normally have widely diversified portfolios, so that any particular holding does not constitute a large proportion of a company’s capital. Therefore, such institutions should perhaps be counted as outsiders. By contrast, ‘insiders’ such as governments, banks, families and other companies are all likely to have close, long-term relationships with their investees. This will involve the private provision of timely and frequent accounting information.

Both of Zysman’s credit-based systems fall into category I of Table 3. Category II (a credit-based system with a large amount of listed debt with outsider owners) is plausible but uncommon. A possible example is discussed near the end of this subsection. Category III is an equity-based system where most shares are owned by insiders. In Japan, for example, there are large numbers of listed companies and a large equity market capitalisation, but the shares are extensively owned by banks and other companies (Nobes and Parker, 1995, p. 9 and ch. 13).

Category IV systems involve important equity markets with large numbers of outsider shareholders. In these systems there will be a demand for public disclosure and for external audit because most providers of finance have no involvement in management and no private access to financial information. This is the classic setting of most of the finance literature (e.g., Jensen and Meckling, 1976; Beaver, 1989). More recently, a connection between more disclosure and lower cost of equity capital has been examined in such a context (Botosan, 1997). Pursuing this line, this article suggests that the key issue for financial reporting is the existence or otherwise of such Category IV financing. Ways of measuring this are proposed below.

In a particular country, there may be elements of several of these four systems. For example, small companies are unlikely to be financed by a Category IV system in any country. However, for the moment, let us assume that the economic activity in any country is dominated by one particular financing system. The hypothesis predicting a correlation between the style of corporate financing and the type of accounting system is that the rule-makers for, and the preparers of, financial reports in equity-outsider (Category IV) countries are largely concerned with the outside users. The conceptual frameworks used by the rule-makers of the U.S., the U.K., Australia and the IASC make it clear that this is so. In particular, they state that they are concerned with reporting financial performance and enabling the prediction of future cash flows for relatively sophisticated outside users of financial statements of large companies. By contrast, credit-based countries (mostly Category I) will be more concerned with the protection of creditors and therefore with the prudent calculation of distributable profit. Their financiers (insiders) will not need externally audited, published reports. This difference of purpose will lead to differences in accounting practices. The less common categories (II and III) will be discussed later.

5 Statements of Financial Accounting Concepts of the FASB, particularly SFAC 1, Objectives; the similar chapter 1 of the ASB’s draft Statement of Principles; Statements of Accounting Concepts of Australia; and the IASC’s Framework for the Preparation and Presentation of Financial Statements, para. 15.
### EXAMPLES OF FEATURES OF THE TWO ACCOUNTING CLASSES

<table>
<thead>
<tr>
<th>Feature</th>
<th>Class A</th>
<th>Class B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provisions for depreciation and pensions</td>
<td>Accounting practice differs from tax rules</td>
<td>Accounting practice follows tax rules</td>
</tr>
<tr>
<td>Long-term contracts</td>
<td>Percentage of completion method</td>
<td>Completed contract method</td>
</tr>
<tr>
<td>Unsettled currency gains</td>
<td>Taken to income</td>
<td>Deferred or not recognised</td>
</tr>
<tr>
<td>Legal reserves</td>
<td>Not found</td>
<td>Required</td>
</tr>
<tr>
<td>Profit and loss format</td>
<td>Expenses recorded by function (e.g., cost of sales)</td>
<td>Expenses recorded by nature (e.g., total wages)</td>
</tr>
<tr>
<td>Cash flow statements</td>
<td>Required</td>
<td>Not required; found only sporadically</td>
</tr>
<tr>
<td>Earnings per share disclosure</td>
<td>Required by listed companies</td>
<td>Not required; found only sporadically</td>
</tr>
</tbody>
</table>

Empirical researchers would need to establish relevant measures to distinguish the categories (as done, for example, by La Porta et al., 1997). These might include the number of domestic listed companies in a country (or this deflated by size of population), the equity market capitalization (or this deflated by GDP), and the proportion of shares held by ‘outsiders’. Although the boundary between the types of financing system may sometimes be unclear (as in many of the classifications in social science, languages, law or, even, biology), the contrast between a strong equity-outsider system and other systems should be clear enough, as the Appendix demonstrates for some countries.

**Financial Reporting Systems**

It is proposed that financial reporting systems should be divided initially into two classes, for the moment labelled as A and B. Class A corresponds to what some have called Anglo-Saxon accounting and Class B to continental European. To assist researchers in measuring a system, some core features of the two systems are suggested in Table 4. For example, systems of Class A will share all, or a large proportion of, the practices shown for that class. Clear examples of actual systems exhibiting *all* of the features exist.⁶

It is proposed that, for developed countries,⁷ the extent that a particular country is associated with Class A or Class B accounting is predictable on the basis of its position with respect to financing systems. If the present accounting system was developed in the past, then reference to the past importance of financing systems

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⁶ For example, Australia, the U.S. and the U.K. exhibit *all* the features of Class A, whereas the dominant systems in France, Germany and Italy exhibit *all* the features of Class B (although a few consolidated statements use a different system and depart from some aspects). Most items in Table 4 are covered by the relevant country chapters of Nobes and Parker (1995) or, for example, see Scheid and Walton (1992) for France, or Gordon and Gray (1994) for the UK.

⁷ The idea of ‘developed’ or ‘culturally self-sufficient’ is examined further later.
will be relevant. Strong equity-outsider markets (Category IV) lead to Class A systems; otherwise Class B systems prevail.

Even if a particular country is traditionally associated with weak equity markets and therefore Class B accounting, the country might change. For example, China has been changing in the direction of a strong equity-outsider market and Class A accounting (Chow et al., 1995). However, the accounting might remain stuck in the past for legal or other reasons of inertia. Nevertheless, in some countries, certain companies might be especially commercially affected. They might adopt Class A accounting by using flexibility in the national rules, by breaking national rules, or by producing two sets of financial statements. Some German examples of these routes can be given. Bayer’s consolidated financial statements (for 1994 onwards) have used non-typical German rules, that are different from those used in its parent’s statements, in order to comply with International Accounting Standards (IAS). Further, officials of the Ministry of Finance have announced that departure from German rules would be ‘tolerated’ for such group accounts. In the case of Deutsche Bank (e.g., for 1995), two full sets of financial statements were produced, under German rules and IAS, respectively.

A related issue is that, as noted earlier, there are two aspects of financial reporting which can be separated: measurement and disclosure (e.g., Nair and Frank, 1980). Table 4 contains examples of both aspects. As explained below, the measurement issues seem to be driven by the equity/creditor split, and the disclosure issues by the outsider/insider split. The equity/creditor split leads to different kinds of objectives for financial reporting. As suggested earlier, systems serving equity markets are required to provide relevant information on performance and the assessment of future cash flows in order to help with the making of financial decisions. Systems in a creditor environment are required to calculate prudent and reliable distributable (and taxable) profit. By contrast, the outsider/insider split leads to different amounts of information: where outsiders are important, there is a demand for more published financial reporting.

It has been assumed here that equity financing systems are normally those which are associated with large numbers of outsiders, so that Class A systems are an amalgam of equity and outsider features. However, if there were countries (Category II of Table 3) with large markets for listed debt but not for listed equities, then one might expect a financial reporting system with the high disclosures of Class A but the measurement rules of Class B. Perhaps the closest example of a system with Class B measurement rules but high disclosures is the German system for listed companies. Germany does indeed have an unusually large market in listed debt.8

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8 Herr Biener of the German Finance Ministry announced this at the board meeting of the International Accounting Standards Committee in Amsterdam in May 1996. In 1998, German law changed in order specifically to allow this.

9 This feature of German accounting was highlighted by Nair and Frank (1980), who prepared separate classifications based on measurement and disclosure practices.

10 For example, in 1993, the number of listed bonds in Germany was 13,309, whereas the number in France was 2,516 and in the U.K. 2,725 (data from European Stock Exchange Statistics, Annual Report, 1993).
This way of distinguishing between the forces acting on measurement and those acting on disclosure may help to resolve the difficulties of a cultural explanation as discussed by Baydoun and Willett (1995, pp. 82–8).

Category III (equity-insider) financing would not produce Class A accounting because published financial reporting is unimportant. The main financiers may be interested in performance and cash flows but they have access to private ‘management’ information.

Colonial Inheritance
Some countries are affected by very strong external cultural influences, perhaps due to their small size or underdeveloped state or former colonial status. Such culturally dominated countries are likely to be using an accounting system based on that of the influential country even if this seems inappropriate to their current commercial needs (Hove, 1986).

Colonial inheritance (Factor 2 in Table 1) is probably the major explanatory factor for the general system of financial reporting in many countries outside Europe (Briston, 1978). It is easy to predict how accounting will work in Gambia (British) compared to neighbouring Senegal (French). The same general point applies to Singapore (Briston and Foo, 1990) or Australia (Miller, 1994). Colonial inheritance extends of course to legal systems and to other background and cultural factors, not just to direct imports of accounting (Parker, 1989). Allied to this are the effects of substantial investment from another country, which may lead to accountants and accounting migrating together with the capital.

Another influence is invasions (Factor 3) which may lead to major influence on accounting, as is the case with Japanese, French, and German accounting. However, when the invader retires, any foreign accounting can be gradually removed if it does not suit the country: Japan closed down its Securities and Exchange Commission when the Americans left, whereas France retained its accounting plan in order to aid reconstruction after World War II (Standish, 1990).

WHY OTHER FACTORS MAY BE LESS USEFUL
If the above conclusions are accepted (i.e., that a general two-class model of financial reporting systems can be built which rests on only the importance of financing systems and colonial inheritance), then most of the seventeen factors listed in Table 1 seem unnecessary as explanatory independent variables, at least for the initial two-class classification. This section explains why, starting with DS’s factors.

11 An unpublished PhD thesis by Charles Elad (University of Glasgow, 1993) shows the colonial influences clearly.

12 Japan’s SEC, its structure of Securities Laws and its stock market owe much to U.S. influence during the occupation following World War II.

13 The distinguishing feature of French accounting, the plan comptable, was first adopted in France while under German occupation (Standish, 1995).

14 The German accounting plan, though copied in France, was abolished by the occupying Western powers after World War II. A version survived in the communist East Germany until reunification.
Tax
Previous writers (e.g., Nobes, 1983) have not been helpful by listing tax as one of the major causes of accounting differences. These writers have, in effect, suggested that Class A accounting systems are not dominated by tax rules whereas Class B systems are; and therefore, that the tax difference is one of the reasons for the difference in accounting systems. However, the disconnection of tax from accounting in Class A systems may be seen as a result of the existence of a competing purpose for accounting rather than the major cause of international accounting differences. Lamb et al. (1995) look at this in detail, concluding that:

1. Rules for the determination of the taxable profit of businesses will be important in all countries (assuming that taxation of profit is significant).
2. Without some major competing purpose for accounting for which tax rules are unsuitable, tax rules made by governments will therefore tend to dominate accounting, so that tax practices and accounting practices are the same (as in Class B).
3. In some countries (or for some companies), there is the major competing purpose of supplying financial reports to equity-outside markets (for which tax rules are unsuitable). In this case, for many accounting topics, there will be two sets of accounting rules (and practices): tax rules and financial reporting rules (as in Class A).

Consequently, the tax variable is not needed to explain the difference between Class A and Class B systems. Nevertheless, for those systems where tax and accounting are closely linked (Class B), international differences in tax rules do create international accounting differences. However, these are detailed differences within a class of accounting systems which all share the major feature of being dominated by tax rules, which is one of the distinguishing marks of the class.

There is a further important connection here. The equity/credit split in financing, as discussed earlier, coincides with the proposed equity-user/tax-user split: accounting systems designed to serve creditors are systems dominated by tax rules. This is because the calculation of the legally distributable profit (to protect creditors) and the calculation of taxable profit are both issues in which governments are interested. The calculation of legally distributable profit is a different purpose from the calculation of taxable profit but it is not ‘competing’ in the sense of requiring a different set of rules because both calculations benefit from precision in the rules15 and from the minimization of the use of judgment,16 which is not the case for the estimation of cash flows.

15 For example, in both the U.K. and Germany (typical Class A and Class B countries, respectively), there are large numbers of legal cases on the determination of taxable income and some on the determination of distributable income, but there are few or none on the determination of consolidated accounting profit (i.e., cases where there is no tax motivation).
16 In the U.K., and recently in the U.S. with SFAS 115, certain assets are revalued above historical cost; and unsettled profits are taken to income (e.g., on long-term contracts and on foreign currency monetary balances). None of this is possible under German law.
Incidentally, DS follow previous writers and suggest that, ‘In many countries, tax laws effectively determine accounting practice’ (p. 196). However, they then find that tax is not a useful independent variable in explaining accounting differences. It is argued above that tax is not an independent variable for the main classificatory split. DS failed to find even a correlation, probably because they mis-specified the tax variable by using the marginal rate of corporate income taxes. This measure seems inappropriate for several reasons. First, tax rates change dramatically over time, without any obvious effect on accounting (e.g., the top U.S. rate fell from 46 per cent to 34 per cent in 1987; the main rate in the U.K. rose in 1973 from 40 per cent to 52 per cent, and then fell to 33 per cent in 1991). Second, many systems have more than one marginal rate (e.g., in Germany in 1995, 45 per cent for retained profit but 30 per cent for distributed profit; and, in the U.K., 33 per cent for large companies but 25 per cent for small). Third, the tax burden depends greatly on the definition of taxable income not just on the tax rate. More importantly, in countries with a small connection between tax and accounting (typical of Class A), the tax rate will have little effect on accounting; and in countries with a close connection (typical of Class B), the effect of tax on accounting will be in the same direction and probably almost as strong whether the rate is 30 per cent or 50 per cent. For all these reasons, the level of the marginal rate of tax will not help to predict the financial reporting system.

Level of Education
DS’s variable here is the percentage of population with tertiary education. It is hard to see how one could explain the major accounting differences on this basis. Can one explain the large accounting differences between, on the one hand, the U.K., the U.S. and the Netherlands (where Class A dominates) and, on the other hand, France, Germany and Italy (where Class B dominates) on the basis of the rather similar levels of tertiary education? Again, can one explain the remarkable similarities between accounting in Malawi, Nigeria and Zimbabwe (Class A countries) and the U.K. (also Class A) on the basis of the rather different levels of tertiary education? Instead there seems to be a connection with the ‘colonial inheritance’ point, as discussed earlier and as taken up again in the ‘level of economic development’ point below. Thus it is not surprising that the education variable did not help DS. Previous suggestions related to this factor (e.g., Radebaugh, 1975) seem, more plausibly, to involve the comparison of developed with less developed countries.

Different levels of professional accounting education might be relevant (Shoenthal, 1989), perhaps especially in developing countries (e.g., Parry and Grove, 1990). However, Nobes (1992) casts doubt upon the relevance of this type of factor for classification. To the extent that this is not another issue related to developed versus developing countries, differences in professional education might be covered by Factor 8 in Table 1 (age and size of accountancy profession) and may be a result of accounting differences rather than their cause.
Level of Economic Development
It is suggested that the key issue here is not the influence of the stage of economic development on financial reporting (as chosen by DS). Gernon and Wallace (1995, p. 64) agree that there is ‘no conclusive evidence’ about the relationship. The problem is that, while many African countries with a low level of development have accounting systems rather like the U.K.’s, some have completely different accounting systems rather like that in France. By contrast, the U.K. or the Netherlands have a rather similar level of economic development to that of Germany or Italy but completely different accounting systems.

It would seem plausible to argue that, if accounting systems were indigenously created in all countries, then they would develop differently in developed and undeveloped economies. However, it is suggested that this point is largely overridden by the proposition that developing countries are likely to be using an accounting system invented elsewhere. Perhaps the system has been forced on them, or they have borrowed it. Either way, it is usually possible to predict accounting in such countries by looking at the source of the external influences. Therefore, the level of development is not the key predictor for the split between Class A and Class B.

Cooke and Wallace (1990) seem to support the distinction between developed and developing countries when it comes to the influence of various environmental factors on accounting.

Legal Systems
For developed Western countries and for many others (e.g., Japan, South America and most of Africa), it is possible to split countries neatly into codified legal systems and common law systems (David and Brierley, 1985). As DS note, this is of great relevance to the regulatory system for accounting. However, there is a high degree of correlation between equity-outsider financing systems and common law countries, and between credit-insider systems and codified law. On the whole, therefore, the same groupings would result from using a legal system variable rather than from using a financing system variable, as DS find. This again suggests the possibility of double counting. The exception of the Netherlands, which raises further doubts about using the legal variable for accounting classification, is explained below.

For culturally dominated countries, both the legal and accounting systems are likely to have been imported from the same place, so the correlation between these two variables is unsurprising. Both factors can be explained by the colonial influence factor, so the legal factor is not needed. For other countries, there may be aspects of the common law system which predispose a country towards the creation of strong equity-outsider systems (La Porta et al., 1997), but going that far back in the causal chain is not necessary for the present model. For present purposes, it may be more useful to specify the legal variable as the regulatory system for accounting rather than the more general legal system. The variable would be

17 This is examined in Nobes and Parker (1995, ch. 1).
measured by locating the source of the most detailed accounting regulations. A 0/1 variable would contrast (i) rules made by professional accountants, company directors, independent bodies, stock exchanges and equity market regulators, and (ii) rules made by tax authorities, government ministries (other than those concerned primarily with listed companies) and legal bureaucrats.

Once more, it could be argued that this version of the legal variable is not independent but is dependent on the financing variable. In strong equity-outsider systems, commercial pressure gives the strongest power over financial reporting to group (i) because, since the financial reporting for the equity/outsiders uses separate rules from tax rules, there is no need for group (ii) to control them. In particular, many of the disclosures (e.g., consolidated financial reports, cash flow statements, segmental reporting, interim reporting) are not relevant for tax or distribution purposes in most jurisdictions. Financial institutions and large companies are sufficiently powerful to persuade group (ii) to allow financial reporting to respond to commercial needs. In common law countries, the importance of group (i) creates no problems of jurisprudence because non-governmental regulation is commonplace. In the rare case of a codified law country with a strong equity market (e.g., the Netherlands), the regulatory system for financial reporting can still give prominence to group (i) although this creates tensions (Zeff et al., 1992). In all systems, group (ii) retains full control over tax rules.

**Inflation Levels**

Another factor included by DS is the rate of inflation and, once more, previous writers have not been helpful here. For example, although Nobes (1983) did not include inflation as a key variable, Nobes and Parker (1995, p. 19) suggested that ‘Without reference to this factor, it would not be possible to explain accounting differences in countries severely affected by it’. However, on reflection, the more important issue is illustrated by other points that they make in the same section:

1. ‘accountants in the English-speaking world have proved remarkably immune to inflation when it comes to taking decisive action’;
2. ‘in several South American countries, the most obvious feature . . . is the use of methods of general price-level adjustment’;
3. ‘the fact that it was governments which responded to inflation in France, Spain, Italy and Greece . . . is symptomatic of the regulation of accounting in these countries’.

In other words, any accounting system would have to respond at some level of inflation sustained for a certain length of time. The key points are who responds and how they respond. The nature of these responses to inflation is a good indicator of the regulatory system for accounting. In countries where Class A accounting is dominant, professional accountants respond; in countries where Class B accounting is dominant, governments respond within the framework of the tax

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18 From observation of Anglo-Saxon countries, it seems that inflation of above 10 per cent for several years will cause a response (e.g., in the U.K. in the early 1950s or early 1970s), and the same applies to some continental European countries in the 1970s (Tweedie and Whittington, 1984).
Differential inflation does not cause the difference between Class A and Class B accounting, the regulators typical to the two classes respond differently to it. However, as with some other factors, differential inflation response may lead to differences between the systems within Class A or within Class B.

Culture
Culture (defined by Hofstede as ‘the collective programming of the mind’) is clearly a plausible cause of accounting differences as proposed by Gray’s (1988) application of Hofstede’s (1980) theory. DS’s four culture variables (see Table 2) were drawn from Hofstede. However, the attempt to use cultural variables entails large problems (Gernon and Wallace, 1995, pp. 85, 90, 91). Baydoun and Willett (1995, p. 69) also suggest that the mechanisms of the effects are not obvious, and: ‘such is the nature of the concepts involved and the state of the available evidence that it is questionable whether Gray’s adaptation of Hofstede’s theory can in fact be empirically validated in the usual scientific sense’ (p. 72).

For the purposes of this article, one can agree with Gray that culture can at least be seen as one of the background factors leading to more direct causes of accounting differences (such as the financing system). Culture may be of more direct help when examining other issues, for example, differences in the behaviour of auditors (Soeters and Schreuder, 1988). It will also be useful later to divide countries into culturally self-sufficient and culturally dominated. As noted in the previous section, the latter countries (e.g., colonies or former colonies) might be expected to adopt practices from other countries. In this sense, culture might indeed overwhelm other factors for certain countries.

Broad Factors
Others of the seventeen factors of Table 1, not proposed by DS but elsewhere in the literature, are too wide to be useful and can be accommodated within more specific factors. On these grounds, history and geography (Factors 11 and 12) can be removed. In a sense, ‘history’ explains everything, but this is not helpful unless it is known which part of history. For example, colonial history and the history of the corporate financing system are likely to be particularly relevant, so other factors can cover this.

‘Geography’ is also too broad a factor to be useful. It seems unlikely that the physical nature of a country has a major effect on its dominant class of accounting. For example, the Netherlands and Belgium have very different accounting, although they are similar in physical environment. By contrast, the U.K. and Australia have similar accounting although they are dramatically different in climate, terrain and type of agriculture. A country’s location may be relevant for other factors (such as colonial inheritance and invasions) or for certain aspects of its financial history (such as the fact that maritime countries may tend to develop

19 For example, many South American countries respond with compulsory government-controlled systems of general price level adjusted accounting, whereas English-speaking countries responded with rules written by the profession (although there was government involvement) which required some supplementary disclosures (Tweedie and Whittington, 1984).
certain types of trading or markets). However, the relevant aspects of geography should be picked up by other factors. In the meantime, one merely notes that location seems to be overwhelmed by other factors in the sense that New Zealand has rather similar accounting to the distant U.K.; and the Netherlands has very different accounting from its neighbours, Germany and Belgium.

**Covariation**

Other factors may involve covariation rather than causation. For example, the fact that many English-speaking countries have similar accounting practices is probably not caused by their shared language (Factor 13): the language was inherited with the accounting or with other factors which affect accounting. Language similarities may contribute to the strength of cultural dominance, and language differences may slow down the transfer of accounting technology. However, these points do not make language a key independent variable.

**Theory**

Theory (Factor 14), in the form of an explicit or implicit underlying framework, is certainly of relevance in some countries.\(^{20}\) However, there are always competing theories (as examined for accounting by Watts and Zimmerman, 1979). It is suggested here that the degree of acceptance of particular accounting theories within a country depends upon other factors, such as the strength of equity markets and the regulatory system.

**Results Rather Than Causes**

Some factors above have been seen as more results than causes of the major accounting differences. Similarly, the age and size of the accountancy professions (Factor 7) differ substantially around the world,\(^{21}\) but this is likely to be the result of different accounting systems. For example, the comparatively small size of the German auditing profession seems to result from the comparatively small number of audited companies, which in turn results from comparative weakness of equity markets.

**Factors More Relevant Outside the Developed World**

Certain other factors might not discriminate between developed Western countries, on which most classifications have concentrated. For example, political systems (Factor 15), religion (Factor 16) and stage of economic development (Factor 8) are probably sufficiently homogeneous in these countries that they do not have major explanatory power. They might well be relevant for a broader study, and at levels of classification below the two major classes. For example, religion may have an effect on accounting in some countries (Gambling and Abdel-Karim, 1991; Hamid et al., 1993). Of course, religion and culture may be closely related.

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\(^{20}\) For example, the Netherlands is often said to have been influenced by the current value theories of Limperg and the German business economist Schmidt (Zeff et al., 1992; Clarke and Dean, 1990).

\(^{21}\) For example, see Table 1.1 in Nobes and Parker (1995).
Accidents
Close examination of accidents (Factor 17) will generally reveal their causes. However, certainly at the level of detailed accounting practices within a class, ‘accident’ may be a useful summary explanation. For example, some of the largest differences between U.S. and U.K. accounting (LIFO, deferred tax and goodwill) could be said to have accidental causes. However, it is not necessary to resort to ‘accidents’ as an explanation of the difference between Class A and Class B accounting. It is suggested that the model which is restated in more detail below is powerful enough without this feature. In the end the validity of this claim is an empirical matter.

Summary on Excluded Factors
Many of the factors which have been examined in this section may be contributory causes to accounting differences or may be associated with accounting differences. However, it has been suggested that each can be eliminated as a major reason for the differences identified at the first split of accounting systems into two classes. At lower levels in a classification, many of these factors may be useful explanations of relatively small differences between systems. Further, some of the factors, certainly ‘culture’, help to explain the different types of capital markets which, according to proposals here, do explain the major groupings.

THE PROPOSED MODEL
The proposed model consists of a number of linked constructs which will be expressed as propositions. Part of the model can be expressed in simplified form as in Figure 2, which amends DS’s proposal (summarised in Figure 1). The variables needed have been introduced in the text above, but now need to be marshalled.

The first variable is the type of country culture and the second is the strength of the equity-outsider financing system. This article assumes that some cultures lead to strong equity-outsider markets, and others do not. However, this is an issue for economists and others and is not examined in detail here. The point of departure for the constructs and hypotheses explained below is the second variable: the nature of the equity markets. Suggestions have been made here about how empirical researchers could measure this variable, perhaps leading to a 0/1 (weak or strong equity-outsider market) classification.

A further variable is the type of company. For most companies (insider companies), a controlling stake is in the hands of a small number of owners. For a

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22 This is examined by Nobes (1996), where it is suggested that timing is a key factor. For example, the U.S. requirement to amortize goodwill was introduced earlier than U.K. standard setting on this issue, when goodwill was far less significant.
Comparatively few companies (outsider companies), control is widely spread amongst a large number of ‘outsider’ equity-holders. Countries with strong equity-outsider systems generally have a large number of outsider companies which may comprise most of a country’s GNP, but other countries may also have a few of these companies.

The fourth variable is the country’s degree of cultural self-sufficiency. As discussed earlier, some countries have strong indigenous cultures whereas others have imported cultures which are still dominated or heavily influenced from outside. This dichotomy will be expressed by using the labels CS (for culturally self-sufficient) and CD (for culturally dominated). Researchers might wish to measure this in various ways, for example by the number of decades since a country gained political independence from another. Many developing countries are CD and many developed countries are CS, but there are exceptions. Again, the boundaries between CS and CD are unclear, but researchers should have little difficulty in classifying many countries. Concentration should be placed on aspects of business culture in cases where this may give a different answer from other aspects of culture.

The final variable is the type of financial reporting system (or, in short, ‘accounting system’) introduced earlier as Class A or Class B. Again, preliminary suggestions have been made about how researchers might measure and classify systems in this way.

The theoretical constructs which link these variables can now be brought together. It is relevant here to repeat the point that more than one accounting system can be used in any particular country at any one time or over time.

The model can be expressed in terms of propositions, which are then explained and illustrated:

P1: The dominant accounting system in a CS country with a strong equity-outsider system is Class A.

P2: The dominant accounting system in a CS country with a weak (or no) equity-outsider system is Class B.

P3: A CD country has an accounting system imported from its dominating country, irrespective of the strength of the CD country’s equity-outsider system.

P4: As a country establishes a strong equity-outsider market, its accounting system moves from Class B to Class A.

P5: Outsider companies in countries with weak equity-outsider markets will move to Class A accounting.
It is argued that equity investors and lenders will be persuaded to provide funds at lower returns to companies using more accepted, familiar and transparent financial reporting (see Botosan, 1997).

The analysis can begin with culturally self-sufficient (CS) countries (Propositions P1 and P2 above), as illustrated in Figure 3. For these countries, it is suggested that the class of the dominant accounting system will depend upon the strength of the equity-outsider market (or on its strength in the past, if there is inertia). Strong equity-outsider systems will lead to Class A accounting (see Table 4), whereas others will lead to Class B accounting. As explained earlier, the term ‘dominant accounting system’ is used to refer to the type used by enterprises representing the majority of a country’s economic activity. For example, small unlisted enterprises in strong equity market countries might not practise Class A accounting or indeed any financial reporting at all.

Propositions P3 to P5 are now examined. Proposition P3 is that, in culturally dominated (CD) countries, accounting systems are imported. Sometimes a CD country will also have had time to develop the style of equity market associated with the culture. Therein, Propositions P1 or P2 will hold as in CS countries. However, sometimes a CD country may have imported its culture and its accounting system without establishing the related equity market. In this case the accounting system will seem inappropriate for the strength of the equity-outsider financing system. Proposition P4 is that, if either a CS or a CD country with a traditionally weak equity market gradually develops a strong equity-outsider system, a change of accounting towards Class A will follow. Also (P5), in a country with weak equity-outsider markets, there may be some ‘outsider companies’ (as defined earlier). Commercial pressure will lead these companies towards Class A accounting, even if the dominant system in the country is Class B. For such a company, there will be rewards in terms of lower cost of capital from the production of Class A statements, particularly if there is an international market in the company’s shares. If legal constraints hinder movement towards Class A accounting, then the company can use extra disclosures or supplementary statements.

Figure 4 shows some aspects of these constructs. The continuous arrows are those from Figure 3. Dotted arrows (a) and (c) concern aspects of Proposition P3.

It is argued that equity investors and lenders will be persuaded to provide funds at lower returns to companies using more accepted, familiar and transparent financial reporting (see Botosan, 1997).
Arrow (b) relates to Proposition P4, and Arrow (d) Proposition P5. Some illustrations are:

1 (Arrow a) New Zealand is a CD country with wholesale importation of British culture and institutions (Type 1), including a strong equity-outsider system and Class A accounting. Whether the Class A accounting results from the equity market or from direct cultural pressure is not important to the model; it probably arises from both.

2 (Arrow b) China is a country without a strong equity-outsider tradition but which seems to be moving towards such a system. Class A accounting is following (Davidson et al., 1995).

3 (Arrow c) Malawi is a CD country with very weak equity markets but where the accountancy profession has adopted Class A accounting, consistent with its colonial inheritance from the U.K.

4 (Arrow d) The Deutsche Bank, Bayer and Nestlé are companies from countries with traditionally weak equity markets. These companies are now interested in world equity-outsider markets, so they are adopting Class A accounting for their group accounts.

IMPLICATIONS FOR CLASSIFICATION

Discussions about the reasons for international differences in financial reporting are clearly related to the topic of classification of financial reporting ‘systems’. Some implications of the above suggestions for classification researchers are examined here.

Before Darwin, the Linnaean classification was drawn up on the ‘intrinsic’ basis of observations about the ‘essential’ differences in the characteristics of species. Later, genetic and inheritance (‘extrinsic’) issues became the normal basis for classification, but largely came to the same conclusions. In accounting, one may also see both intrinsic and extrinsic classifications (Roberts, 1995), which may lead to similar conclusions. For example, one can extrinsically trace modern U.K. and modern New Zealand accounting back to a common ancestor; and one can intrinsically note many similarities in the accounting systems currently used. However, it is proposed here to discuss the classifications based on intrinsic factors. For this reason, the term ‘species’, to which Roberts (1995) objected, will be omitted.

It is not proposed here to re-work previous classifications but to suggest implications of the above conclusions for future classification work. Taking the classification by Nobes (1983), some improvements can be suggested, as shown in Figure 5. The two classes are shown, much as in the earlier classification, but the labels are sharper, following Propositions P1 and P2 above. The bottom level of classification is now a ‘system’ not a country. This accommodates P5 above. In order to make

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24 These issues are discussed by Nobes (1996).

25 For example, Bayer adopted international accounting standards (IASs) for its group accounts for 1994, and Deutsche Bank produce supplementary IAS group accounts for 1995. Nestlé published IAS group accounts.
Figure 5

EXTRACT FROM PROPOSED SCHEME FOR CLASSIFICATION

Accounting systems in 1998

Strong equity-outsider, Class A

Weak equity-outsider, Class B

Anglo-Saxon

U.K. GAAP

IAS GAAP

U.S. GAAP

Standard

Italian

French

German

American

Class

Family

System

Example

1. U.K. accounts
2. Irish accounts

1. Any Singapore company's accounts
2. Some large European Companies e.g., Nestlé, Nokia

1. Accounts of a U.S. SEC-registered company
2. Some Japanese group accounts

1. French individual accounts

1. German individual and group accounts, except for some group accounts of large listed companies
2. Swiss individual accounts

1. Italian individual accounts or unlisted group accounts
the classification easier to use, the systems could be labelled (e.g., U.S. GAAP). The classification in Figure 5 is by no means complete, for it merely seeks to illustrate the type of amendments proposed for future classifiers.

Below each system, there are examples of users of the system. This accommodates the points made earlier about the meaning of the term ‘dominant accounting system’. For instance, U.S. GAAP is used by SEC-registered companies but not by all U.S. companies. Similarly, some Japanese companies are allowed to follow U.S. GAAP for their group accounts for both U.S. and Japanese purposes. As another instance, the ‘standard German’ system is that used by German companies for individual company accounts and, by most of them, for group accounts. However, several German listed companies are now publishing group accounts in accordance with International Accounting Standards, either by carefully choosing unusual German options (e.g., Bayer for 1994) or by producing two sets of group accounts (e.g., Deutsche Bank for 1995).

Proposition P3 would be relevant for the inclusion of developing countries in a classification. The fourth proposition could be used to predict which countries would move their dominant systems towards Class A in the classification.

POLICY IMPLICATIONS FOR RULE-MAKERS

The import and export of accounting technology (Parker, 1989) seems to be accelerating as a result of globalization and the formation of economic blocs such as the European Economic Area and the North American Free Trade Area. Also, the World Bank has funded advice for China on reforming its accounting; the British Foreign Office for Romania; the European Union for Russia; and so on. This section examines some implications of the article’s earlier sections for standard-setters and other rule-makers.

In a CD country, the rule-makers should note that the country’s accounting system is likely to have been imported and may not be appropriate for the main purpose of accounting. For example, in a developing country with imported Class A accounting but with few or no listed companies, the paraphernalia of Class A (e.g., extensive disclosure, consolidation, external audit) may be an expensive luxury. Resources might be better spent on establishing a reliable and uniform bookkeeping system, partly for the purpose of improving the collection of tax.

A similar point applies to many former communist countries, where the introduction of Class A accounting for a large proportion of enterprises might be inappropriate. However, for some such countries (perhaps China) where an impression has been created that the population and the government seem keen on moving to an equity-outsider system, the introduction of Class A might be appropriate, at least for large or listed companies.

In CS countries with a credit-insider system, again the rule-makers should think carefully before a generalized introduction of Class A. For example, it is not at all clear that the benefits of Class A would exceed its cost for the bulk of German companies. It is also not clear that there would be much benefit in any improved ability to compare corner grocery shops in Stuttgart with those in Sydney. However,
German rule-makers should ask themselves (and are doing so) whether they should assist the large German companies who are being forced by commercial pressures towards Class A. One approach would be exemption from normal German rules for the preparation of consolidated financial statements by such companies.

There is another policy question for governments whose countries do not have equity-outsider financing systems but who wish to encourage them. Would the imposition of a Class A financial reporting system encourage a change in financing system? The thrust of this article is that the financial reporting follows from the financing system. This is reminiscent of the debate in the literature about the relationship between double-entry bookkeeping and the rise of capitalism (e.g., Sombart, 1924; Yamey, 1949; Yamey, 1964; Winjum, 1971). The weight of argument seems to rest with those who believe that double entry follows business developments rather than leading them. None of this proves that developments in accounting cannot assist in economic development. However, the imposition of Class A might be inappropriate, particularly if done for unlisted companies or within a detailed and slow-moving legal system, given that an important feature of Class A accounting is that it can adapt to commercial circumstances. It might be better to concentrate on making Class A available by removing any legal or economic barriers to its usage and by subsidizing education.

In CS countries with equity-outsider financing systems and Class A accounting, the rule-makers should ask whether the full panoply of Class A is necessary for smaller companies or whether a separate financial reporting system should be allowed for them. This issue has largely been resolved in the U.S.A., as discussed earlier, and recent moves in the U.K. have exempted some smaller companies from audit and from the disclosure rules of several standards. The International Accounting Standards Committee (IASC) does not impose its rules on any enterprises; it merely makes them available to companies or regulators. However, some regulators impose IASs on some or most enterprises in their countries. The International Accounting Standards Committee (IASC) does not impose its rules on any enterprises; it merely makes them available to companies or regulators. However, some regulators impose IASs on some or most enterprises in their countries.27 Also, the World Bank requires its borrowers to use IASs. The IASC should consider whether it could make available some additional ‘system’ which might be more suitable for financial reporting by unlisted companies.

SUMMARY

This article proposes a general model of the reasons for international differences in accounting practices. Instead of dozens of potential independent variables, it proposes two explanatory factors for the first split of accounting systems into classes. For culturally self-sufficient countries, it is suggested that the class of the predominant accounting system depends on the strength of the equity-outsider market.
For culturally dominated countries, the class of the accounting system is determined by the cultural influence. However, sometimes an equity-outsider market may gradually develop, or certain companies may be interested in foreign equity markets. This will lead to the development of the appropriate accounting, and it is one of the reasons for the existence of more than one class of accounting in one country.

Many other factors, which had been suggested previously as reasons for accounting differences, result from or are linked to the equity market. Some factors are perhaps reasons for the differences in equity markets, but are too unclear to measure with any precision. A general theory previously proposed by Doupnik and Salter (1995) mixed several of these factors and mis-specified some of them.

Some improvements to the classification of accounting systems have been suggested, incorporating the idea that it is accounting practice systems, not countries, that should be classified. Some implications for rule-makers are suggested, warning against inappropriate transfers of technology.

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This appendix contains an example (relating to 1995) of the measures that could be used to distinguish between strong equity markets and others. The data in Table A relate to the eight largest economies in Europe, which are probably all CS countries.

**Table A**

**EQUITY MARKET MEASURES**

<table>
<thead>
<tr>
<th></th>
<th>Domestic equity market capitalization/GDP</th>
<th>Domestic listed companies per million of population</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.K.</td>
<td>1.34</td>
<td>30.2</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0.99</td>
<td>14.4</td>
</tr>
<tr>
<td>Sweden</td>
<td>0.76</td>
<td>24.4</td>
</tr>
<tr>
<td>Belgium</td>
<td>0.50</td>
<td>14.3</td>
</tr>
<tr>
<td>France</td>
<td>0.40</td>
<td>12.4</td>
</tr>
<tr>
<td>Spain</td>
<td>0.36</td>
<td>9.3</td>
</tr>
<tr>
<td>Germany</td>
<td>0.31</td>
<td>8.4</td>
</tr>
<tr>
<td>Italy</td>
<td>0.18</td>
<td>4.3</td>
</tr>
</tbody>
</table>


In order to identify a Category IV financing system, it would also be necessary to establish that strong equity markets (e.g., U.K. and Netherlands) had a high level of ‘outsiders’. This could be done using statistics of ownership of shares (e.g., Federation of European Stock Exchanges, 1993).