Does the Nobes Cycle Exist, and if so, What Does it Signify?

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Abstract—This article provides an alternative analysis of the recent evidence provided by Nobes concerning the existence of cycles in accounting standard setting. We disagree with Nobes' interpretation on three grounds. (1) We do not believe that the theory of the 'Nobes Cycle' in accounting standard-setting is specified adequately to explain any cyclical behaviour in the degree of standardisation of ASC pronouncements. (2) Nor do we believe that the empirical evidence advanced by him justifies the view that the cycles exist in reality. The pattern seems to be substantially influenced by ASC's mode of operation and consultative process. (3) The single 'degree of standardisation' measure adopted by Nobes offers only a very partial view of changes in the quality of corporate reporting practice. We argue that the direction of standards and the quality and volume of disclosure are at least as important. Judging by the latter, we suggest that the ASC was highly successful.

Introduction

Christopher Nobes has argued recently (Nobes, 1991) that there was a cycle in accounting standard setting in the UK during the life of the Accounting Standards Committee (ASC). The feature which is alleged to exhibit this pattern is the degree of standardisation of particular aspects of accounting proposed in documents issued by the ASC. It is suggested that the cyclical pattern resulted from the opposition of two forces: a 'downward force', opposed to standardisation and led by corporate management, and an 'upward force' led by senior members of the accounting profession. The conclusions drawn from this are (Nobes, 1991, p. 271) that 'no progress is obvious; that is, the ASC did not seem to become more successful at resolving conflicts, discovering unique answers or imposing standard solutions' and that 'the inability of the ASC to identify or to state or to enforce the "right" answer on various issues led to pressure to replace it . . .'

This proposition is an interesting one, and the case is eloquently argued; however, we do not find it convincing for the reasons stated below. We group our comments under three headings: (i) the theory of standardisation cycles, (ii) do standardisation cycles exist and (iii) what might patterns in standardisation signify? These are the logical components in Nobes' analysis.

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Theory

The Nobes theory of cycles (Nobes, 1991, pp. 256–6) is that the accounting standard-setting process is initiated by an external stimulus, such as a piece of legislation or a financial crisis. Economists might characterise this in trade cycle theory as a random shock. Subsequent developments are explained in terms of two opposing forces: the standardisers (characterised as 'the independent mindedness of individual senior members of the profession', supported by government and the press) and their opponents (characterised as managers of firms who wish to retain discretion over reporting practices, particularly with respect to profit measurement, together with the auditors 'who serve them').

However, it is not clear why this opposition of forces should lead to a cycle. In order to explain cyclical behaviour, economists have invoked lags (which can induce cycles of increasing, decreasing or constant amplitude) and buffers (non-linearities or absolute constraints which limit amplitude and can cause turning points). Discussion of such matters is to be found in any standard account of the trade cycle (e.g. Medio, 1987), but it is absent from Nobes' paper.

An alternative explanation of cyclical behaviour might be that the external shocks are not random, but cyclical (as in 'sunspot' theories of the trade cycle). A persuasive application of this to accounting is Mumford's analysis of the history of inflation accounting standards in the UK (Mumford, 1979), which uses the inflation rate as the exogenous variable which determines the degree of interest in inflation accounting. However, such ideas are not

developed in the Nobes paper, which dismisses the idea of an exogenous factor on the ground that the observed 'cycles' did not have a common pattern (Nobes, 1991, p. 271). The latter argument is based on the assumption of a single factor (the state of the economy) common to all standards, but in fact there are other exogenous factors, such as changes in the tax system, which are of particular relevance to particular standards (e.g. deferred taxation in the case of tax changes).

Thus, it is not at all clear why the Nobes theory should lead to a cycle rather than, say, a trend in the direction of the more powerful of the opposing forces. However, if a cycle were shown empirically to exist, it would certainly demand an explanation, as in the case of certain long-term cycles which have been claimed to exist in economic activity. The remainder of this paper is devoted to our doubts about Nobes' empirical evidence for such a cycle.

Do standardisation cycles exist?

In order to identify whether the ASC was successful in narrowing the range of recommended accounting practice, Nobes measures the degree of standardisation contained in the ASC pronouncements. As he admits, this is measued by a subjective process of estimation that obviously limits the significance which can be attached to the vertical scale of his diagram. For the purpose of this paper, we accept his analysis (Nobes 1991, Appendix 2) as an indication of the direction of change, which can be the subject of non-parametric tests to establish

whether there is a pattern compatible with the existence of a cycle.

Even when taking the standardisation variable at face value, we show below that the results reported by Nobes do not support his contention that there is a cycle in UK accounting standard setting. Although he does not give a precise statistical specification of a cycle, we infer from his discussion that it involves a systematic pattern of serial correlation, since he rejects (p. 271) the alternative hypothesis that the observations are distributed randomly. This conclusion is founded on inspection of the diagrams rather than precise statistical analysis.

A better test would have been to look at the sequence of changes recorded in Nobes' five case studies. Table 1 provides relevant summary statistics. Columns 1 to 3 record the aggregate incidence of changes of each type:

'+' indicates an increase in the standardisation level (including the first observation, which always represents an increase, in the absence of a previous standard);

'0' indicates no change; and

'−' indicates a decrease.

There is a remarkable degree of equality between the total number of increases and decreases, both at the individual standard level and in aggregate. If we ignore the small number of 'no change' cases (which might be regarded as measurement errors since no two pronouncements are identical and, even if they are, they will have different degrees of standardising authority, e.g. in moving from

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Table 1
Frequency of increases and decreases in Nobes' measure of degree of standardisation

Subject	Type of change +	0	−	Total number of events	Number of turning points	Expected number of turning points
1. Inflation Accounting	4	2	4	10	5	4.5
2. Research and Development	1	0	2	3	1	1.0
3. Deferred Tax	3	0	3	6	2	2.5
4. Merger Accounting	3	0	2	5	4	2.0
5. Goodwill	2	2	2	6	2	2.5
Total	13	4	13	30	14	12.5

Notes:
1. The source is Nobes (1991), Diagrams 1 to 5 and Appendix 2.
2. The later developments in R & D (after the break in Figure 2) have been ignored, as they are not discussed in the Nobes paper. They would add two zero observations and one turning point.
3. A turning point is defined as passing through zero. Thus, a sequence +, 0, − or −, 0, + counts as only one turning point.
4. The expected number of turning points is the probability of a change of sign (0.5) multiplied by the number possible (the number of events, less one, since the final event cannot be a turning point).

exposure draft to standard), then we can character-ise the probability of increase or decrease as 0.5 in each case. This does not tell us whether there is a cycle, because this would depend on the serial correlation of the outcomes. However, if we take the Nobes criterion of randomness as the null hypothesis, we would expect the sign of any change to be the opposite of the sign of the previous change in half of the cases (because the probability of the opposite sign is 0.5). The final column of Table 1 records the number of turning points in the Nobes diagrams, and it will be seen that there are 14 cases out of a possible 25 (ignoring the final observation in each case since this cannot be a turning point) which is close to the expected value of 12.5 which would be implied by a random sequence of events. The individual case studies are also consistent with randomness, the number of turning points being equal to the expected value (allowing for rounding) in each case, with the single exception of merger accounting, which ex-hibits perfect negative serial correlation, rather than a cyclical pattern.

Thus, we conclude that Nobes is wrong to reject the null hypothesis of randomness.[1] There is no clear pattern of change in Nobes' measurement of standardisation.

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[1] Whilst we would suggest that our results cannot reject the null hypothesis of randomness, it is clear that the result is not statistically significant in the usual sense in view of the small number of observations in each time series; see for example, Siegel (1956, pp. 53 and 252–253). However we would argue that our procedure is vastly superior to Nobes' casual observation.

What might patterns in pronouncements signify?

Are the Observed Changes in Standardisation Better Than Cycles?

Although we reject Nobes' conclusion on the existence of cycles, the alternative view that the changes are random does not seem any less damn-ing of the ASC's contribution. Nobes' accusation of no progress in the work of the ASC may still seem to be sustainable. However, such a view would be misleading. There is, in fact, an observ-able pattern in the data, when a distinction is made between formal SSAPs and preliminary material issued for discussion, such as exposure drafts and discussion papers. Specifically, this latter material tends to be followed by standards which are less prescriptive. Furthermore, this is exactly what is to be expected from ASC's mode of operation and consultation.

Given that the ASC required the support of its constituency, it would have been ill-advised to issue a restrictive standard without previously ex-posing proposals which were at least as restrictive. Furthermore, it is natural to expect that discussion would lead to the relaxation of the proposals in the exposure draft, to allow for special cases which could not have been anticipated at the exposure draft stage. Consequently, the observed character of ASC's pronouncements is partly the conse-quence of its *modus operandi*.

Nobes seems to reject this view since he says that '. . . the figures do not illustrate the emergence of middle-of-the-road consensuses on the issues . . .

Table 2
Relationship between Exposure Drafts and subsequent Standards

	Number of cases
Subsequent standard more restrictive	1
Subsequent standard equally restrictive	3
Subsequent standard less restrictive	6
No subsequent standard (Note 4)	5
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Total Exposure Drafts considered	15
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Notes:
1. The source is as for Table 1.
2. The later developments in R & D, if included, would add one case where the subsequent standard was equally restrictive.
3. The definition of a standard includes PSSAP7, which was a provi-sional standard, and the Hyde Guidelines, which were widely followed, although non-mandatory. The Discussion Paper on Goodwill is not counted as an Exposure Draft, because it preceded an Exposure Draft rather than a standard.
4. Includes 1 withdrawn, 2 superseded by new EDs and 2 awaiting action.

but keep on going up and down' (1991, p. 271). An important point which such a view ignores is that, by definition, the first observation in each series represents an increase in standardisation, and this sets the level around which future changes occur. The degree of standardisation variable might decline consistently in relation to the first observation, but the final outcome could still represent a recommendation which places significant restrictions on reporting practice.

Table 2 summarises the evidence for this characterisation of the exposure draft-to-standard transition; either the standard is broadly similar to the exposure draft (4 cases, including the one which was marginally more restrictive) or the standard is less restrictive (9 cases). Specifically:

- In only one case (SSAP 15 Revised) was a standard assessed as being more prescriptive than the exposure draft, and that was arguably on a requirement (the preference for the liability method of assessing the rate of deferred tax) which was likely, at the time, to be income-increasing (since corporation tax rates were falling) and which was a logical consequence of the essentially liberal method embraced by the standard (partial provision).
- In six cases, the standard following an exposure draft was less restrictive.
- Three other exposure drafts in the 'no subsequent standard' category could be classified as being followed by less restrictive standards: in one case (ED35) the existing standard practice was withdrawn entirely, and in two others (ED14 and ED3) less restrictive standards ultimately emerged after the issue of further exposure drafts.
- There are three cases in which the subsequent standards were very similar to the previous exposure drafts. We have suggested earlier that it might be possible to differentiate these on minor content changes, but the differences would not be material: the essential difference is in the more binding nature of a standard.

Other Benchmarks

In assessing the meaning which may be attached to any observed pattern in Nobes' data, it is important to note that his figures are based on a single 'degree of standardisation' measure, which emanates from the concern with narrowing the range of recommended practice. We suggest below two further dimensions and argue that they are likely to be more important, in evaluating the ASC's contribution, than the simplistic one adopted by Nobes.

The first dimension omitted by Nobes is the *direction* in which ASC developed reporting rules. An obvious example of this is Nobes' first case

study, inflation accounting. The first two pronouncements on this, ED8 and PSSAP7, advocated constant purchasing power accounting (general index adjustment), whereas subsequent standardisation proposals were all based on current cost accounting (specific index adjustment). The standard-setting controversy in this case was as much about the form which inflation accounting should take as about the degree of standardisation with which it should be enforced. A full account of this debate, and the complex factors which affected its course, will be found in Tweedie and Whittington (1984).

Attempting to improve the measurement procedures used in financial reporting is an important task for a regulatory body because unregulated markets with a large number of traders may find it difficult to make such adjustments (Brennan 1990, p. 727; Lundholm 1991, p. 487; Peasnell, Skerratt & Ward 1987, p. 14). Since investors are typically concerned with time horizons which are shorter than the life of the investment, returns to equity are mostly caused by changes in expectations about future prices, and not by the dividends received. Consequently, investors have a limited interest in long term yields, but focus rather upon the beliefs of others, as a guide to the resale price of the investment. Moreover, this concern with the beliefs (and measurement techniques) of others rather than with fundamentals is more pronounced, the larger the number of participants in the market. The larger the number of traders, the less likely that any individual investor will be able to influence the market's response to information. Since all investors consider themselves to be in the same position, the market mechanism for improving the measurement methods in financial reports is not clear.

Of course, the market is known to make its own judgment about the interpretation of disclosed information; for example, whether or not items should be regarded as expenses or as assets. Consequently, following the arguments of Jensen and Meckling (1976), management may have an incentive to improve the quality of financial reporting. However, if this process is to be an effective substitute for regulation, then the market must also be able adequately to interpret non-disclosure, so that there is a sufficient return differential between informative and poor disclosers. Even in the relatively straightforward situation of voluntary forecast disclosure, recent studies suggest that, by and large, such an environment does not exist. For example, the work by Lev & Penman (1990) and McNichols (1988) indicates that voluntary disclosure tends to be the dissemination of good news, and that there is little pressure from the market to disclose bad news. This is consistent with our analysis above of the incentives which act upon individual investors in competitive investment

markets. It is therefore doubtful whether unregulated markets, by themselves, can ensure adequate measurement rules, especially with respect to the detailed aspects of reporting tackled by the ASC.

This argument also supports the view that the second dimension in which the impact of the ASC should be measured is the quality and volume of disclosure. The basic idea, which underpins a substantial research literature, is that the 'economic reality' of the corporation is so complicated and varied that investors are unlikely to be adequately informed merely by the operation of a closely defined measurement process. Therefore companies should be encouraged to make full disclosures to increase the fairness of exchange markets and to allow investors to make informed investment decisions; see for example, Sorter (1969) and Beaver (1989, p. 162). Given that this is such an important school of accounting thought, it is surprising that no mention is made of it in Nobes (1991). This omission is compounded by the fact that the ASC's contribution has already been evaluated in this way. The extensive review by Hanson (1989) suggests that there has been substantial and widespread improvement in corporate disclosure practice during the life of the ASC.

In order to illustrate the weakness of Nobes' framework, consider his Figure 2, depicting an obvious downward movement in standardisation from ED14 to SSAP13 (Revised). This would seem to indicate a clear case of regulation failure. However, the evidence from another perspective suggests that very different conclusions should be drawn. Firstly, Hanson (1989, Table 20, p. 58) reports that the percentage of top 100 UK companies with R&D activity which failed to state their accounting policy fell from 98% in 1968 to 25% in 1988. Secondly, the study by Bublitz and Ettredge (1989) on USA data finds that even when R&D is expensed, the stock market treats the item as long lived. If this USA evidence is indicative of the stock market's behaviour in the UK, then these two observations indicate that UK investors have been increasingly well served by R&D disclosures.

Conclusions

(1) We do not believe that the theory of the 'Nobes Cycle' in accounting standard-setting is specified adequately to explain any cyclical behaviour in the degree of standardisation of ASC pronouncements.

(2) Nor do we believe that the empirical evidence advanced in Nobes (1991) justifies the view that the cycles exist in reality. There are serious measurement problems in the data used. However,

even if we ignore these problems, the data presented do not display any obvious cyclical pattern and we demonstrate that it is not possible to reject the hypothesis of randomness in the pattern of standardisation through time.

This pattern seems to be substantially influenced by ASC's mode of operation and consultative process, since we detect that exposure drafts tend to be followed by standards which are not significantly more restrictive, and are typically less restrictive.

(3) The single 'degree of standardisation' measure adopted by Nobes offers only a very partial view of changes in the quality of corporate reporting practice. We argue that the direction of standards and the quality and volume of disclosure are at least as important. Judging by the latter, we suggest that the ASC was highly successful.

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