More Peculiarities of the British: Budgetary Control in U.S. and UK Business to 1939

John M. Quail

Department of Business and Economics
University of Leeds, UK

Budgetary control is a crucial technique for managing large, integrated enterprises. Often presented as a management accounting technique, it is best considered in a wider role as a method of planning and coordinating activities across functional departments and delegating tasks down a managerial hierarchy without loss of control. In the United States budgetary control evolved together with large integrated enterprise and became systematized and widely used as a management technique following the experience of U.S. business in the post-World War I boom and slump.

The various examples of UK practice, or non-practice, in budgetary control demonstrate that, as with other management techniques, there was a small minority of UK firms who adopted sophisticated practices - as developed as any in the United States or Germany - and a large majority of firms whose management practices barely changed from before World War I to after World War II. It is not correct, therefore, to characterize UK business as universally under-developed in management technique: there was a wide divergence in practice, sometimes within the same firm. There was sufficient publicly available information and there were sufficient trained personnel for any UK company to adopt any current management technique had it wished to do so. The failure to adopt them was a failure of demand not supply.

The explanation for this failure – the word failure being used here in a straightforwardly judgmental and normative way – may be found, it is suggested, in the particular structures adopted by large UK enterprise. These structures were in turn the consequence of persistent proprietorial power which tended to weaken the development of integrated management structures and, in particular, worked against the development of top management. The adoption of new management techniques by a minority of UK firms only took place when, due to particular circumstances, it suited proprietorial interests to do so.

The Characteristics of Budgetary Control

There are four broad features of systems of budgetary control: 1) Budgets are used to integrate activity across an organization by setting targets. In a manufacturing company, for example, targets are based on

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anticipated sales derived from an assessment of future market conditions. Anticipated sales determine production volume and timing which in turn determines purchases of raw materials or machinery, staffing levels, and thus financial requirements.

2) Budget targets integrate activity down an organization. This is done by breaking the targets into divisional, departmental, sectional, or even individual targets. To be carried through effectively this requires clear lines of authority and defined responsibility levels through the organization, the more so as firms grow in size and complexity.

3) Targets are used to achieve control of the organization by monitoring performance against target by division, department, section, or individual in order that swift remedial action may be taken if targets are not met. A feedback loop is established between performance against target and management response.

4) The budget is used to make the organization responsive to market conditions. Because the monitored targets are integrated across and down the organization, changing demand can be translated into changed targets in an ordered and timely way. A feedback loop is established between markets and targets.

While budgetary control is a technique which *can* be used by small organizations, it becomes more and more essential as production pace and volume and organizational size increase. The inception of budgetary control is the beginning of business planning, the systematic attempt to achieve relative certainty of business conditions and response without which the increasing size of the new enterprises would be an increasing liability. Once the technique is mastered, however, control over the organization is greatly increased and competitive advantage can move to the big firm

It is important to stress that if a company has a budget it does not necessarily mean that a system of budgetary control has been introduced. A budget can be little more than a list of permissions to spend. For budgetary control the budget has to be used in a feed-back loop in which prediction and out-turn are continually examined to find ways of achieving greater certainty of outcome. The process not only brings about attempts to improve techniques of prediction but also focuses attention on information flows and the performance of different parts of the organization. Budgetary control therefore is both a planning technique and an instrument for integrating and driving organizations.

U.S. Developments in Budgetary Control

Budgets had been in use on some U.S. railroads from 1881 [Chandler, 1977, p. 186 and fn 114, p. 548], though, as we have seen, this is not the same thing as budgetary control. Examples may be found in U.S. business literature of budget systems which compare out-turns against plan well before World War I [Mix, 1909]. Finished systems of budgetary control which integrate functions across departments and down managerial hierarchies seem, however,

to have been a dual product of the growing size of U.S. firms and their experience of post World War I boom and slump.

There was a close relationship between business theory and business practice. J.O. McKinsey's pioneering work *Budgetary Control* appeared in 1922. This book appears to have been the first printed source which explicitly linked market forecasting, the feedback loop of plan and out-turn, and the managerial structure of the firm in an organic whole. McKinsey remarks that "the firms are largely in the minority which have formally adopted budgetary control at the present time" [McKinsey, 1922, p. 12]. By 1926, however, it was possible for Bruere and Lazarus to present a large number of representative examples of installed budgetary control systems from a range of industries [Bruere, 1926]. They extracted the practical lessons from their examples in a form very close to McKinsey. The budget period should, they said, allow dependable estimates of sales but should be flexible enough to allow adjustments. Sales quotas should be based on an independent analysis of the market. "Ensure a careful preparation of all other estimates and place responsibility for making them on persons who have administrative responsibility for securing results... Have the budget follow the organization line and the organization line meet the requirements of budget accountability. Frequent comparisons of results with estimates should be made" [Bruere, 1926, p. 11].

By the time Bruere and Lazarus' book was published, budgetary control systems were known to financial institutions and were being urged on their manufacturing clients. Bruere and Lazarus themselves were employees of an insurance company which set up budgetary control systems for its clients. By 1926 an English observer could say "of all the many forces at work in American business today there is nothing so new, so arresting and so much in men's minds as Budgetary Control" [Elbourne, 1926, p. 77]. And in the opinion of a representative of the New York Bankers Trust, "The results have been and continue to be marvellous" [ibid., p. 86]. The experience of General Motors straightforwardly illustrates the connection between the uncertain post World War I business conditions and the evolution of budgetary control. Without the development of integrated purchasing and manufacturing programs based on accurate market forcasts, GM would have collapsed. Without the central control which budgetary control based business planning gave, decentralization into divisions might well have been too risky [Sloan, 1986, Chapter 8].

All in all, the experience of U.S. business in the development of budgetary control may be described as a "Chandlerian rationalist" response to business conditions. Business techniques were developed or adopted which helped new large businesses firstly to cope with the disadvantages of size in the shape of long chains of command and complex information flows and subsequently to combine decentralized divisional structures with centralized planning and control.

UK Developments – General

The first publicized UK budgetary control system was that of Austin Motors in the early 1920s [Perry-Keene, 1922]. A more primitive form of budget system had been in operation at Lever Brothers since the 1880s. Both the Austin and Lever systems predated the publication of J.O. McKinsey's book, which was a major source of later UK initiatives.[1] The second post-World War I budgetary control system appears to be that of the Hans Renold Company, installed between 1925 and 1928 [Renold, 1950, p. 4]. Standard Telephone and Cable had a working system by 1931 [Willsmore, 1932]. It was claimed that "several firms in the electrical and 'newer' industries – particularly those with transatlantic connections – have adopted the budget plan with considerable success" [ibid., p. 8]. One example is the British Thomson Houston Company [Young, 1937]. The Institute of Cost and Works Accountants (ICWA) published material in its journal, *Cost Accountant,* some of it from U.S. sources [Bruere, 1925; McKinsey, 1925]. The ICWA's Cost Conferences in 1925 and 1930 were devoted to budgetary control. There were thus practical examples and published texts available on a wide enough scale to enable UK enterprise to take advantage had it wished.

An indicative, though by no means complete survey of contemporary budget practice was presented to the Sixth International Congress for Scientific Management held in London in 1935 [Dunkerley, 1935]. Because the subjects were drawn from the Management Research Groups there was a real sense that they represented a self-consciously "progressive" group. Twelve firms from different sectors were considered. All the firms surveyed claimed they were gaining benefits from the use of budgets. In half the firms, however, the advantages claimed were not really to do with the use of budgets *per se* but incidental improvements in management accounting or expenditure control or increased coordination. In the other half of the sample the use of a budget had introduced a feedback loop allowing faster response and greater control. Here we may say that some form of budgetary control had been established. Two firms, which appear to be Dunlop and Austin Motors, had budget targets linked to individual manager's performance, though no mention is made of systems of delegations of responsibility. Only two firms, which appear to be Rowntrees and Austin Motors, were going "a long way towards full exploitation of the underlying theories" of budgetary control [ibid., p. 30]. For a self-selected group of progressive firms this is not particularly impressive.

[1] L. Urwick says that the 1931 Geneva International Conference on Budgetary Control was "permeated" by McKinsey's "thought and...influence" [Urwick, 1956, p. 268]. Out of this conference came the impetus to set up the UK Management Research Groups which led to Dunkerley's survey for the 1935 Scientific Management Conference.

UK Developments – The Pioneers: Austin Motors and Lever Brothers

We have seen that budgetary control had been developed by a number of UK subsidiaries of U.S. firms. It is not proposed to deal with these here since it is assumed that their business practice was based on that of their parent body. Of the British firms who had developed budgetary control systems most were proprietorial firms with simple, even at times underdeveloped, structures but sophisticated management technique. These companies included Lever Brothers (later part of Unilever), Rowntrees, Austin Motors, and Hans Renold. Interestingly, larger or more complex companies with a greater demonstrable need for business planning and performance control systems, who also had ready access to U.S. firms in their sector who practiced such techniques, did not adopt them. Particular examples here are the LMS Railway and ICI. Reasons for this apparent paradox will be suggested below. The potential scope for budgetary control systems in UK business in the interwar years and their potential for survival can be neatly illustrated by the systems at Austin Motors and Lever Brothers. The system at Austin Motors was the most sophisticated of any found in UK business and quite comparable with U.S. best practice. Its origins lay in the desperate crisis that overtook the firm in the post World War I slump [Quail, 1996, Chapter 7].

Austin Motors had expanded tenfold during World War I in response to the demand for munitions. The firm had patriotically refused to profiteer and the war's end found it burdened with the costs of wartime expansion and a large plant not readily convertible to vehicle manufacture. The difficulties were compounded by a not particularly successful post war 20HP model, uncontrolled costs, arbitrary price rises, and the rapid onset of slump in late 1920. By April 1921 a receiver had been called in. The creditors imposed new directors, one for Production and one for Finance leaving Herbert Austin stripped of his Managing Director's position, as "Commercial Director" responsible for designs, development, and sales. Crucially, however, Austin retained control of costing in a little noticed part of the negotiations. This was particularly significant for Austin because his short-term solution to the crisis of 1920-21 had been the attempt to produce new, more popular models with tight cost control. As this short-term crisis management turned into a longer term business strategy it enabled Herbert Austin to effectively retain control of his company, despite the outside directors imposed on him, by means of the budgetary control process.

Austin had a long-standing interest in costing which did not find practical expression in the actual administration of his company before World War I. During the war the Ministry of Munitions' costing system was applied to armaments production at Austin. The experience gained seemed to have been applied to wartime plans for a proposed post-war model, each component and assembly being given materials quantities and operation times. At given material and labor costs these could be built up into the price of a complete car. It appears, however, that Herbert Austin abandoned costing systems at the war's end as part of the economy drive that accompanied the transition from war to

peacetime production. In 1919 and 1920 the Board were waiting months for cost information and a costing system had to be reconstructed in tandem with plans for a new 12HP model in 1921. It is clear from the published account, however, that the system was very much more than a system of establishing historic costs.

The series of six articles on "Cost Control in the Motor Car and Allied Industries" in the *Cost Accountant* between September 1922 and February 1923 are, in fact, the first public account of a budgetary control system that has been found in the UK. In his introduction the Austin Comptroller Addison Perry-Keene, says:

> The fluidity of commercial conditions which developed during the war and the consequent necessity for taking new bearings has brought about an acute need for accurate costing and statistical work, together with some method of continuously controlling both production and expenditure, more especially in the case of large concerns... The momentum acquired by a manufacturing plant in full swing is such, under today's conditions, that immediate closure could not be effected without appalling financial loss. Therefore the ebb and flow of quantities to match seasons and markets must be controlled and controlled with knowledge [Perry-Keene, 1922, September, p. 104].

The starting point was the selling price of the car which was preset by the market niche for which it was intended. Following the previous practice with the 20HP car the new model had been broken down into its many constituent materials quantities and timed operations from which costs could be built up. With the new model, however, each of these component costs had a limit set by the percentage it represented of the target cost of the complete car. The costing system now monitored the actual cost of each operation against target costs. In order that the cost information should be available quickly a large mechanical accounting system was acquired using punched cards, card sorters, and tabulators. According to Perry-Keene, the system allowed him to extract costing details of any process at any time. The main use at this time (1922) does seem to have been to produce a weekly trading account which showed actual performance against programs for production, sales, expenditure and profits. But the availability of readily analyzable information did allow an audit trail back to the level of the individual section if worrying variations from targets required it [ibid., November, p. 170]. A thirteen-week production program "based upon average of sales in sight" allowed modification in a relatively smooth and timely way [ibid., October, p. 132]. A cash flow forecast was also produced and the cash position monitored against it [ibid., September, p. 106]. The system gave tight control of costs and early warnings of problems of shortage of cash or the growth of inventory or unsold finished cars. In this it answered Austin's immediate need for greater commercial certainty.

From the beginning, therefore, the system installed at Austin Motors to control costs was much more than that since it contained the feedback loop typical of a system of budgetary control. As time passed the opportunities which were offered by this feedback were used for managing and reducing costs. By 1925 Perry-Keene, while retaining the emphasis on accurate detailed pre-costing, placed a new emphasis on an "active attempt to create and maintain a market through manufacturing and selling products at a price which is truly economic from the point of view of the purchasing public" [Perry-Keene, 1925]. By 1928 Perry-Keene was explaining how working back from the selling price for a car the company took each of the 6,000 parts a piston, a connecting rod, and so on

> and reduces them to their actuarial terms of what we shall get for them. We then say in effect to labour, "We are not your paymasters we are merely agents of the general public which pays us all and which will only pay X price for a piston, connecting rod and so forth. Your share is Y... [Perry-Keene, 1928, p. 28].

The general practice in the UK, says Perry-Keene, has been that

> the works accountant goes down to the works and asks what a part is made for but that is totally wrong as we have shown by our system of definitely determining at what cost an operation should be carried out, having regard to the previously fixed price of the finished product [ibid., p. 29].

While the system clearly depended in part on "speed-up," care was taken to prepare machines, jigs, etc. to eliminate setting-up times and reduce handling. Perhaps most importantly, care was taken to make the sequence of operations more efficient. Perry-Keene gives an example from 1925 when "in the case of the gear box, for example, [we] re-arranged operations and were able to produce a particular gear box for nearly 41 per cent less than the original cost without any opposition from labour" whose earnings, it is said, increased [ibid., p. 30]. In 1928 the whole of Longbridge was reorganized for flow production. The primary intention was to increase production to meet increasing demand and was the culmination of improvements and experiments from about 1925 [Collins, 1993]. But Perry-Keene's statements also make it clear, that flow production was also the culmination of attempts to achieve radically reduced costs of production.

The introduction of flow production brought about some shifts in emphasis in the budgetary control and cost monitoring system. First, the greatly increased production volume reemphasized the necessity of achieving the best possible predictions of market demand in order to adjust production levels or increase advertising. Estimates of sales from Austin's now greater network of agents were carefully assessed, weighted where necessary by reference to the success or otherwise of previous estimates [Perry-Keene, 1934]. Second, the increased capital intensity of production focused attention on the cost of the machinery. The heavy depreciation charges meant that they became a

significant part of the costs of any operation. Therefore machinery had to cost no more than the multiple of target machine costs per operation and the estimated number of operations it would perform in its working life. Where outside suppliers could not supply machinery within those limits the Austin Motors Company built their own to pre-specified costs [Perry-Keene, 1932, 1934]. Third, increasingly capital intensive production shifted (but certainly did not eliminate) the emphasis on labor productivity. Now the usage of a machine to its target level was important if on-cost per unit produced was to remain within allowable limits. Intensity of machine usage became a focus of labor discipline. Perry-Keene said in 1931 that "the man who is earning the biggest money is by far the cheapest operator in the Company" [Perry-Keene, 1932, p. 252]. Unless workers earned bonuses of 80% they were sacked [Perry-Keene, 1929]. There was a personal daily cost account for every worker [Perry-Keene, 1932] and the company claimed to know within hours if the on-cost percentage was rising for any worker [Perry-Keene, 1928, 1935].

By the 1930s, budgetary control had become an integral part of company business planning which started at market research and covered production capacity, investments pay-back, "make or buy" decisions, and replacement of labor by machinery. As Perry-Keene said in 1934:

> Budgetary control as now being applied is more than an assembly of estimates. Based upon actuarial averages it discloses a method of anticipating events and arranging their happening in a logical order and at the right cost [Perry-Keene, 1934, p. 638].

This method of "anticipating events and arranging their happening" put control of manufacturing – from which he was formally excluded – into Herbert Austin's hands through the agency of his Comptroller, Addison Perry-Keene. Austin was to rather disingenuously tell an audience of cost accountants in 1925:

> Mr Perry-Keene...does not exercise any control over the other man's department other than giving him figures...the figures control the Directors just as much as they control anybody else... It is not the fact that you are present at the works but that you have the data on the sheet of paper which you can present with confidence to them and which they will believe in – which controls their future actions [Austin, 1925, p. 420].

This control was easier because the management structure at Austin Motors was loosely formed, particularly at the top. There were no formal meetings of the working directors and no obvious staff structure serving top management (with the possible exception of Perry-Keene). Departmental management was also less than systematic [Quail, 1996, pp. 228-33]. Thus budgetary control and business planning served the dual purpose of integrating the operations of an otherwise loose management structure and maximizing the power of a partially excluded owner/manager. It cannot be said with certainty that the budgetary control system would have developed and grown beyond the

point at which the business was turned round – by, say, 1924 – if there had not been a personal organizational advantage for Herbert Austin. Austin had ended costing after the end of World War I despite his professed interest in the subject. Despite increasing prosperity the firm took great pride in keeping its administrative overheads low [Perry-Keene, 1927, 1928, 1932, 1935]. The system appears to have disappeared without trace when L.P. Lord took over the firm after Austin's death in 1941. Lord had no need of a proxy control system and no interest in management accounting. In this he was close to the mainstream of British business attitudes.

The budgetary control system evolved by Lever Brothers and used subsequently in Unilever was not as sophisticated as that at Austin. Unlike the Austin system, however, it survived and helped Unilever form decentralized divisions relatively smoothly after World War II. The system had been evolved very early in W.H. Lever's career and helped to integrate a loosely structured holding company [Quail, 1996, Chapter 8]. At some point in the late 1870s when he was running the Wigan branch of his father's grocery business W.H. Lever started comparing his trading performance against estimates he made, at first for the following quarter and then for a year. As his business grew he applied the system to each new company he acquired or set up.

> An annual estimate...was prepared by the management of each associated company. This estimate was in full detail giving sales, margin of profit, advertising expenditure, cash flow and so on. [Lever] examined these and set what he called the datum for the company concerned. If he agreed with the annual estimate the datum was the figure of total profit as shown by the estimate. If he did not agree with the estimate, he just set a arbitrary figure as the datum and the management concerned had to do their best to attain that figure [Knox, 1976, pp. 70-71].

The subsidiary companies were then required to send in returns on a regular basis showing performance. Sales were reported weekly. Cost books in the Unilever archives show performance at Port Sunlight (the main Lever factory) from the late nineteenth century onwards for sales, trade discounts, cost ex-works (i.e. materials, processing and packing costs combined), distribution, selling and advertising charges, and profits in total and per ton for each product made there. Initially these reports were every six months but by the inter-war years they were quarterly. It is not clear whether or not subsidiary companies reported in the same detail.

It is clear therefore that W.H. Lever had established a system with the feedback loop characteristic of budgetary control. It is also fairly clear that costs were recorded rather than set as targets to be achieved in their own right. The key target was profit, as the quote above indicates, and the returns were used as an indicator that profits would or would not be met. There seems to have been no use of budgets or costing to manage and reduce costs of manufacture, transport, or advertising. Budgeting did integrate the organization in the sense that each company owned by Lever was set goals by him but while

the details of efficiencies, sub-targets, and cross-functional arrangements were certainly of interest to him from time to time, their systematic monitoring and management was left to others:

> He followed closely every aspect of the business even when it was world wide and diversified...he was not only the boss but the owner of the business and he wanted to know. His knowledge enabled him to be alert to praise and when necessary to criticise but, being informed, he left his managements to attend to their business [ibid., p. 69].

There is some evidence that while the system of supervision remained the personal reserve of W.H. Lever the system of compiling and storing records may have been subject to delay and under-use. A senior Unilever manager, A.M. Knox, says in his memoirs that the systems in use provided historic data of limited value [ibid., p. 30]. To a degree this was inevitable, partly because in the period to which Knox refers – 1922 to 1924 – the records were compiled by hand. By 1928, however, the compilation of returns had been mechanized using punched card systems and other office machinery [Locking, 1928, 1931]. This did not particularly affect the frequency with which subsidiaries reported to head office – sales figures were always reported weekly – but in the speed with which this information could be summarized and analyzed. Therefore when product divisions were set up in 1931 after the Unilever merger a more systematic and immediate scrutiny of the summarized and analyzed data was possible. But even with the greatly increased information processing capacity available there was little focus on production costs even though these costs were used to make inter-firm comparisons from time to time or in decisions on factory closures. It is noticeable that the efficiency investigations instituted after the Unilever merger were all concerned with selling or administrative structures rather than production departments. At Unilever as at Lever Brothers the focus of central control was on sales volume and profit per product line.

The lack of emphasis on production and materials costs in the management accounts appears to have been rationally based. Lever Brothers and Unilever had to contract well ahead for raw materials and had plantations whose costs were effectively sunk. The budget system could therefore give little control over material volumes or costs. As far as production was concerned, there was considerable technical innovation in manufacturing and purchasing in the 1930s [Musson, 1965, pp. 331-334], but little study was made at senior levels as to the cost reductions that could or should ensue. Senior managers argued, however, that "extra efficiency in the factories would make only limited savings while getting the marketing right in a business with high advertising and promotion costs...was fundamental" [Zinkin, nd, p. 28]. The failure to use market forecasting to consider longer term production requirements led to some problems with under-capacity in the later 1930s, but there is no evidence that in the last resort Unilever failed to make all the products it could sell.

There were thus no compelling reasons to make Lever Brothers/Unilever alter the emphasis of the budget system on sales volumes and profits.

In the longer term it proved an adaptable form of control as the organization evolved and grew. The system had been developed, as we have seen, to give W.H. Lever control over a loose aggregation of acquired companies through a kind of proprietorial oversight. After the Unilever merger, helped by the mechanization of accounting systems, the budget system allowed the development of tight central control of a company organized into non-decentralized product divisions. The Chandler version of Unilever as a continuation of a loose Lever Brothers aggregation is badly mistaken [Chandler, 1990, pp. 378-389; Quail, 1996, Chapter 8]. Here supervision was systematic, reporting frequent, and the subsidiary companies were steadily reduced to husks as centrally-directed marketing organizations and rationalized manufacturing units were orchestrated from the center.

The budget system also allowed Unilever to move from centralized to decentralized divisions after World War II in a relatively trouble-free way. The system readily allowed targets to be set and performance to be monitored at divisional level and enabled decentralization to proceed without loss of overall central control. Like many UK companies there was a shaky grip on the relationship between headquarters staff departments and divisions, but the mechanism of corporate planning prevented this causing particular difficulties. Thus despite a less sophisticated control of production than the Austin system, and despite its contingent proprietorial origins, the Unilever budget system was a key factor in the evolution of the firm from loose holding company to divisionalized global enterprise.

The Laggards: LMS and ICI

The London Midland and Scottish Railway (LMS) demonstrates how, despite the creation of the necessary conditions for the development of a system of budgetary control by a UK company, the option was refused – and apparently consciously refused [Quail, 1996, Chapter 5]. The LMS was the largest of the four UK railway companies formed in 1923 and indeed "much the largest non-government business in the United Kingdom" [LMS, 1938]. It was led from 1927 by Josiah Stamp who had senior management experience in both government and industry [Jones, 1964, passim] and was both highly financially literate and closely aware of U.S. developments in management. There were to be no particularly radical consequences to Stamp's appointment, however. The heavily departmental structure of the traditional UK railway company remained, each department responsible to a committee of part-time non-executive board members. This structure was mitigated to a degree by the grouping of departments under vice presidents but the structure of board committees appears to have largely ignored it and weakened their control.

The company was not without its innovations. Its locomotive and carriage and wagon shops were internationally recognized by scientific management experts as centers of excellence in production and cost control

[Lemon, 1930]. Comprehensive operational and maintenance costing for locomotives was used to rationalize the system of locomotive repair and the stock of existing engine types and set design requirements for new ones [Wood, 1932; LMS, 1931]. The market for LMS business was carefully analyzed and sales canvassers were used to establish "the estimated total of revenue which could be obtained from passenger, goods or coal class traffic in the light of assessible charging conditions" [LMS, 1940]. Targets were set for individual salesmen to achieve this overall target. In a number of respects therefore the conditions for a system of budgetary control were being evolved: operational costing was established if not complete, market forecasting had been established, and sales targets were being set. The decisive step towards budgetary control was not taken, however, despite the introduction of a crude budget in the shape of expenditure limits in 1931 in response to plunging revenues in the slump [LMS, 1932]. It is not clear why they were not further developed. Josiah Stamp, after initial enthusiasm, appears to have decided not to proceed and justified this by reference to the experience of U.S. railroads. His evidence appears to have been selective, however, and did not reflect the experience, for example, of the Pennsylvania [LMS, 1935].

The failure to proceed further with budgeting may have been caused by purely contingent factors. Stamp may have not been impressed by U.S. experience. He may have been influenced by his Vice President for Finance who was scornful of the potential for traffic costing upon which a full system of budgetary control would in part rely [Wood, 1928]. Yet there may well have been structural factors affecting Stamp's decision. The managerial implications of budgetary control systems, as we have seen, were that management structures became integrated across the organization and responsibility is delegated down the organization. This was an organizational logic in almost total opposition to the traditional railway structure with watertight departments and committees of the board which attempted very close control over them. The traditional means of control by these committees had always been detailed control over permissions to spend. Delegations to managers to spend within budget figures would have appeared to be an invasion of directors' prerogatives. Stamp never once attempted in his 13 years at the LMS to reshape the board's structure and powers even in matters of detail.

ICI was a rather different case, though some similar structural explanations are possible for the failure of the firm to develop any form of budgetary control or indeed any form of business planning before World War II. ICI is praised by Chandler as a rare UK example of an amalgamation followed by integration in the U.S. or German manner [Chandler, 1990, p. 356ff]. A closer examination shows a number of peculiar organizational features which modify this analysis [Quail, 1996, Chapter 6]. The settled form which the company established in 1931 had decentralized manufacturing divisions with separate centrally controlled marketing and finance departments – the latter in charge of costing. Individual product development was in the hands of the manufacturing divisions while new product strategy was ineffectually handled at the center by under-resourced staff departments. ICI was dominated until after

World War II by Sir Harry McGowan and the centralized control of finance and detailed spending approvals was at the heart of his domination.

The somewhat paradoxical consequence was that the organization was overcentralized and loosely controlled. There was no mechanism to integrate marketing, costing, product development, investment, and manufacturing other than McGowan himself. ICI was, however, too big for one-man management. Budgetary control, when it did emerge in ICI in World War II was the product of the Dyestuffs Division which had managed to get some control over its marketing in the later 1930s and of its finances during the war. Effectively, budgetary control in ICI emerged in spite of the organization and almost subversively as a form of divisional independence. Much of the explanation for ICI's structures lies in the personal will to power of McGowan. Yet there is an ideological element to certain of his decisions on the structure of ICI which cannot simply be attributed to that factor alone. He withdrew directors from functional executive positions. Yet he also ruled that the departments at HQ dealing with issues such as product development were advisory and had no power to issue instructions to divisions because no director was running them. These decisions taken together are both an assertion of the collective role of the directors and of the particular powers belonging to them and the subordinate position of managers.

The consequence of McGowan's personal dominance was a bottleneck of information flows and financial decision making centered on committees controlled by McGowan. The consequence of the removal of functional executive directors was, however, equally significant. It led to the failure to establish an effective top management able to strategically develop the main functions of the organization and empower the staff and planning functions at ICI headquarters. In such conditions there was neither the motivation nor the means to produce a company-wide budgetary control or business planning system. The U.S. models of company structure and company control were freely available to ICI from their close business contacts with General Motors and DuPont, but were simply ignored.

Conclusion

We have seen that the widespread adoption of budgetary control in the U.S. in response to post World War I boom and slump was not repeated in the UK despite similar economic conditions and the availability of techniques and skilled personnel. A small minority of firms adopted some form of budget but only a very small minority produced well developed systems. An explanation may be the prevalence of personal capitalism in the UK. [Chandler, 1990; Locke, 1984]. Personal capitalism in the UK, it is suggested, with its rugged individualism and "practical" approach was antipathetic to system and technical expertise as a basis for management structures and procedures. More specifically, autocracy was unlikely to be sympathetic to systems of delegated power. But this explanation can only be partly satisfactory. As we can see from the case of Austin and Lever, here were two dyed-in-the-wool personal capitalists

who installed good examples of budgetary control systems. Austin had motives other than the pursuit of scientific management but his system was, nonetheless, exemplary. Lever's system was a psychologically uncomplicated and straightforward control mechanism for his expanding collection of companies. We can also note that other companies with good budgetary control systems were also personally managed – for example Rowntrees and the Renold Company. On the other hand two large joint stock companies, LMS and ICI, had substantial administrative hierarchies and in common with similar UK companies did not develop budgetary control or indeed top management in depth in our period. The LMS and ICI exceptionally, however, had the knowledge and practical example of U.S. developments freely available to them. We are forced to conclude therefore that an explanation from personal management fails.

We might, in consequence, wish to fall back on a case by case approach that emphasizes the contingent factors which resulted in the emergence or non-emergence of budgetary control in each company. It is possible to suggest another, structural explanation, however, which can help us understand the wider failure to develop managerial hierarchies and managerial techniques in the UK. Put simply, UK business traditions and company law put great emphasis on the role of the joint stock company director as the shareholders' representative and only slowly formally recognized that a director might also be a manager. Traditionally, the separation of the two roles was great. The consequence was that UK management structures were often not integrated at the top, below the level of the board, and where they were – with the appointment of a full-time general manager or managing director – top management structures remained sparse. The boards of directors were overwhelmingly parttime but insisted on holding the reins of power. Full time directors with functional responsibilities would have allowed the development of a structure similar to that of U.S. corporate presidents and vice-presidents. More delegation to full-time management would have allowed another route towards building top management. The UK system of company governance tended to block both routes. In consequence the systematic delegations to management that are implied by systems of budgetary control were unlikely to find much support from UK directors. Paradoxically, therefore, the freedom that was enjoyed by companies with more personal management enabled a number to establish budgetary control in their own way and for their own purposes.

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