factual results are satisfactory. Good management must leave a good impress. Figure facts are but the reflections of management. If they are distorted or indicate failing strength the management, of which they are the reflection, can hardly be good.

E. Hayden Hull.[10] Mr. Wall did not make one point. That is that whereas actual results may be good, the financial statement does not show how much better they might have been if there had been better human management. I myself question whether there has been enough emphasis placed on the human element in this proposed balance sheet. It is men who make things run. What the credit man wants to know is whether the business will be run as well or better in the future as it has been in the past. This depends on the men who are managing both the machines and other men.

It seems, therefore, that a technique should be set up for measuring the human element in more detail. The National Association of Credit Men is in an even better position than the technical management societies to put such a balance sheet into effect. The companies who come for credit are obliged to give whatever information is asked, while the management societies can rely only on salesmanship in promulgating techniques which they deem advisable.

I propose that the human part of the balance sheet be divided into two parts. The first should show whether or not the general management has set up proper scientific management procedures for making the most of its workers. This covers proper methods of selection, training, fair wages, incentives and proper supervisory work.

The second part should provide objective measures of personnel performance. The output per thousand man hours, in the fields of production, sales and the office, whether this output is increasing or decreasing and how it compares with the standard for the industry, should all be ascertained. The ratio of spoiled to finished goods, of salesman's calls to sales and of clerical workers to volume of business should also be compared with the standard for the industry. The rate of labor turnover is also an important index of management. The standards of the industry for all of these things are of the greatest importance, as many of them are not measurable *per se*.

The research division of the National Association of Credit Men is in an ideal position to collect, check and organize the material for such measures and general standards. Such a piece of work would benefit them and be of real service to the whole field of scientific management.

[10]Consulting Personnel Engineer, New York, N. Y.

G. E. Schulz.[11] It is significant that the discussion today has focused on the word "capacity." Financial statements measure accomplishment rather than true plant capacity—that of men, facilities, methods, etc. To measure possible capacity in all these lines the engineering approach is necessary, and the services of the industrial engineer and the marketing counselor, as well as of the credit man and the accountant, must be sought. No one group can give a true picture of possible industrial capacity. Nor are appraisals made at long intervals valuable. Conditions often change overnight and appraisals must be made at frequent intervals.

Thomas O. Sheckell.[12] My work resembles the post mortem more than the constructive work that has been described here today. As we go over the records of defunct businesses in our office, however, we realize the crying need for management analysis. Ineffective man power has been the primary cause of the business failures of the year. And it seems to be possible for men who have failed once to get credit to go back into the same type of business again. We have on our lists a number of "repeaters."

George G. Berger.[13] It is rather generally accepted that the usual accounting statement of assets and liabilities is not sufficient and that a supplementary rating of management is needed. I do not think that a "balance sheet of management" is required as an addition to the usual accounting statement but I do firmly believe that we must use the factor of managerial efficiency to secure new values for the assets of a business.

This may be done by a management rating worked out at one-month periods. Under my plan the operating viewpoint of the administration is analyzed into operating policies. The ratings of these policies are secured by evaluating certain operating results in terms of standards set for the condition of maximum turnover of capital. In this manner a management measurement, or rating, which may be taken as a direct indication of its efficiency and future efforts toward maximum earnings, is obtained from the operating viewpoint.

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[12]Manager, New York Credit Men's Adjustment Bureau, New York, N. Y.
[13]Industrial Engineer, New York, N. Y.

In considering the bearing of such a rating on the balance sheet of the company, the first thought suggested is that the real worth of the business is determined from accounting valuation and the probability of accomplishment as indicated by the past ratings of management. In other words, the accounting values are to be multiplied by a managerial constant which may be obtained from the ratings. I would not use a supplementary report but a composite report of accounting value and managerial rating. Supplementary reports are additional reports, and to my mind there is bound to be some indecision in their use.

In preparing a balance sheet which incorporates the managerial ratings, I have found important at least five valuations of assets, depending on the viewpoint assumed for valuation purposes. They are:

1. The usual accounting value as determined by cost and net profits.
2. The liquidation value, which is based on what the assets are worth if disposed of quickly.
3. The incentive value based on the willingness of the management to keep operating for the purpose of maintaining the higher accounting value.
4. The continuity value, which is a value indicated by the past ability of the management to secure business and continue operation.
5. The managerial value, which is the value based on the past managerial effort.

The continuity and managerial values are future estimates of the values of the various assets and for this reason are lower in total than the accounting and incentive values. The composite, or average, of these five values may be taken as a conservative estimate of the real value and the real net worth.

I do not offer this form of setting values as a final, perfected form but as a suggestion in establishing the real worth of a business. It takes into account, first, cost, then present value at a forced sale, added value to be secured by the company's known ability to secure additional business, and added value to be secured by the company's known ability to operate efficiently for a profit.

Arthur K. Schulz.[14] In future those companies which expect to profit from the mistakes of the past and anticipate so far as possible the difficulties which economic recession is likely to bring, will be those which attract to themselves well trained economic talent, so that periodic reviews may be made by committees consisting of the top representation of credit, economics and control. This applies to all forms of undertakings which extend credit in one form or other. We shall of course always have marginal enterprises, just as we have marginal workers, which just barely get by, and below which we have those which fail. We can never hope entirely to forestall business failures, but we can see that our particular company does not take an undue share of such losses which foresighted effort and redirection can prevent.

Those creditors which rely largely upon annual balance sheets and profit and loss statement analyses for their information as to the condition of their debtors are likely to be working upon information which is from six months to a year old if not more than that, because if a debtor is not doing well in July or August, it may be February or March of next year before the credit man is possessed of information which discloses dangerous tendencies. Moreover, year-end statements are more likely to be window dressed in some form or other, so as to hide the true condition.

Then, too, smaller companies are not necessarily audited by public accountants, and one has no assurance that the figures are correct, assuming that any are available. Consequently the smaller enterprise must be covered by visits of some kind if one is to get a true slant.

W. R. Williamson.[15] It is suggested that concurrently with the development of a management balance or evaluation sheet, the conventional form of financial statement be carefully studied and revised so as to permit of proper co-ordination with the management evaluation. The two in conjunc-

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