FINANCIAL STATEMENT ANALYSIS PRINCIPLES, AN UPDATE AND EXTENTION OF MAVROVITIS' 50 THOUGHTS

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Some years ago, Basil P. Mavrovitis published financial statement analysis guidelines for use by credit professionals.[1] Using his 50 "thoughts" as a framework, this work extends the guidelines to encompass financial statement analysis for investment as well as credit decisions, and updates Mavrovitis' analysis in light of intervening developments.

Financial statements are summaries of assets and liabilities of an enterprise that serve as a guideline for credit and investment decisions. There are many issues finance professionals must consider when analyzing financial statements. Listed below are significant issues to be considered in analyzing the financial statements of an enterprise.

1. Never accept "No" for an answer regarding financial disclosure, especially if the circumstances require disclosure in order to decide whether to extend – or continue to extend, credit, or to acquire – or continue to hold – equity.

2. Focus on liquidity, leverage, and profitability ratios. Viewed from the perspective of a creditor, these are the three key measures of performance that must prove satisfactory if the enterprise is to remain viable as a going concern and are the three metrics that inform the creditor of the risk extending, or continuing to extend, credit. They are also the three key metrics that inform the equity investor of the risk of an investment relative to its historical return. Keep in mind – and this principle not only bears repeating, but will be repeated *ad nauseum* – that the past is not prologue to the future. These key measures can change, for better or for worse, both dramatically and quickly.

3. Detailed financial statement analysis should enable the financial analyst to evaluate the enterprise's ability to pay within terms, manage and amortize debt, generate profits for survival or growth, and ultimately survive as a going concern.

4. Never let a financial statement sit unanalyzed for more than two working days. At least glance at the statement to ensure that no material adverse changes have occurred.

5. Always extend financial analysis beyond the current statement period by reviewing prior period statements and looking for trends. Consider currently prevailing and projected future market and economic conditions to identify near and medium term risks and uncertainties going forward. Do not adhere to "bright line" financial ratio standards generally applicable, or used to evaluate the enterprise historically, particularly if currently prevailing or projected future market and economic conditions suggest changes - favorable or unfavorable - in the risks and uncertainties facing the enterprise going forward.

6. Financial statements represent a snapshot of the economic performance of an enterprise a point in time (the balance sheet) or over a specific historical period (the income statement and the statement of cash flows). Do not make credit or investment decisions based on dated financial information. Request an updated statement before making any future financial commitment to the enterprise under analysis, keeping in mind that such updated statements are likely to be unaudited.

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1 Mavrovitis, Basil P."Fifty Thoughts on Financial Statement Analysis." *Business Credit*, Vol. 93, No 2. (Feb. 1991) p.10 *et seq.*

7. Always strictly comply with any confidentiality or non-disclosure obligations to the enterprise or under applicable law. As regards publicly-traded enterprises, never disclose any information that has not been publicly released by the enterprise, regardless of potential materiality.

8. Carefully read the accountant's opinion in order to determine the type and quality of the financial statements. Make sure that the opinion is in standard form and without qualification.

9. Committing, or conspiring to commit, fraud through the United States Postal Service or by "wire" (telephone, facsimile, Internet (including email) are Federal felonies.Therefore, always save information documenting receipt of financial statements (a post-marked envelope, the original email or download, etc.) from an enterprise, all information subsequently received from the enterprise, and all correspondence to or from the enterprise. Treat composition of email - including internal email - as seriously as a formal business letter.

10. Beware of financial statements that do not reconcile from period to period. Such statements, particularly from smaller enterprises, could be "home made" statements generated on a PC (to save on outside accounting costs).

11. Compare the ratios analyzed to industry standards that are available. Identify, if possible, the enterprises considered as representing the "industry" in question. Make sure that the comparison to industry standards is reasonable and realistic for the enterprise under analysis, based on how closely the business of the enterprise reflects the businesses of the enterprises comprising the "industry" and the relative size of the enterprise to the enterprises comprising the "industry."

12. Beware of cross-comparing ratios between industries. LBOs are probably the only exception for cross-comparison of ratios.

13. Learn from experience. If a lender, develop a marginal financial condition enterprise profile based on prior bad debt write-off experience with other enterprises to use as a negative standard to compare financial statements and ensuing ratios. If an investor, develop a negative standard investment profile based the financial statements and ratios of prior investments in other enterprises that did not yield acceptable rates of return or were otherwise unsatisfactory (unacceptably volatile or illiquid).

14. Always ask for the notes to the financial statements and the accountant's opinion if they are not included.

15. Do not be afraid to call the enterprise, particularly private enterprises, to ask for explanations of balance sheet, income statement and statement of cash flow items. Public enterprises are, obviously, legally limited in what they can discuss with individuals. Listen to all public enterprise conference calls with shareholders and analysts. If unable to ask questions during the call, follow up with a call to the analysts covering the enterprise.

16. Beware of dramatic increases in working capital, such as increases in asset accounts that reduce cash. Carefully evaluate changes in accounts payable turnover.

17. It's very difficult to justify selling an enterprise with a negative net worth (particularly a negative tangible net worth) on open terms without guarantees or collateral. Your analysis should provide additional clues relating to an unbalanced financial condition. Look at the quality of any guarantees or collateral the enterprise has received in connection with any acquisitions it has made. Similarly, if the

enterprise under analysis has purchased or sold affiliates, divisions or businesses, recognize that the enterprise may have contingent liabilities relating to such transactions that either are not reflected on the balance sheet, or not properly valued on the balance sheet. [Indeed, some of these liabilities may be difficult, or impossible, to value, and the enterprise may retain these liabilities for many years.]

18. On the other hand, the SEC's adoption of Staff Accounting Bulletin 92 in 1992 on the proper accounting treatment of loss contingencies under FAS5 has led many enterprises to establish excessive book reserves. A thorough treatment of this topic is outside the scope of this paper. But, the obligation - or the ability - to establish excessive loss contingency reserves enables enterprises to manipulate earnings to the extent that experience over time allows reversal of excess reserves, or new reserves are created for purported contingencies. Look carefully at changes in reserves from period-to-period, as well as the aggregate amount of reserves.

19. If the enterprise is obligated to maintain clearly excessive reserves, a purchaser of an affiliate or division of the enterprise facing the contingent liability can assume the liability from the selling enterprise, which can then reverse the reserve and apply it toward the purchase price. [And, if a purchaser is compelled to assume a liability, the purchaser should insist that the reserve be credited against the purchase price.] It is sometimes possible to finance acquisitions, particularly from public enterprises, in substantial part, with the seller's money (a credit for the amount of the seller's reserves for liabilities assumed by the purchaser).

20. Always note the accounting method used for inventory and depreciation because the mode used could overstate net income. Pay particular attention to changes in accounting methods for inventory, depreciation, and the like from period-to-period as such changes can be used to artificially improve measures of financial performance.

21. Always ask for federal tax returns covering the enterprise's business activities for the periods reflected in the financial statements under analysis. Tax accounting is substantially different from GAAP/IAS accounting, and comparison of the enterprise's reports to tax authorities with its financial statements will often be enlightening. While this request will often be denied, particularly by public enterprises, it is critical when analyzing small, private enterprises that claim not to prepare financial statements.

22. Consider leverage in context. Make sure a leveraged enterprise has the management expertise and financial wherewithal to manage the leverage. Consider, however, the financial condition of competitors and any competitive disadvantage faced by the enterprise under analysis as a result of its leveraged position. Also, evaluating a leveraged enterprise requires particular attention to currently prevailing and projected future market and economic conditions, particularly as they might affect liquidity and the continued availability of adequate working capital.

23. Current ratios under 1:1, and quick ratios under 0.5:1, generally reflect enterprises that are approaching illiquidity. Again, however, these are not "bright line" standards, and during periods when the capital markets experience, or face, declining liquidity, expect enterprises to maintain substantially higher liquidity ratios.

24. Support a financial statement analysis with updated bank and trade references, if possible. Review all available analyst reports that may be available for public companies.

25. Always analyze the components of the statement's tangible net worth entry - as an enterprise can present a positive tangible net worth, while having a retained earnings deficit.

26. Always analyze accounts receivable and inventory very closely and from several different perspective because they are the true trading assets that generate cash flow on an ongoing basis.

27. Always support financial statement ratio analysis with cash flow analysis by analyzing the sources and uses of cash by the enterprise.

28. Perform sensitivity analysis, particularly with financially marginal enterprises, to determine if they can survive under adverse financial circumstances.

29. If warranted by current or proposed financial exposure through extension of credit or equity investment, request interim or monthly statements from the enterprise, particularly private enterprises.

30. Beware of fixed asset re-evaluations since they artificially inflate and overstate net worth. The fixed asset re-evaluation increase should be deducted from net worth to derive tangible net worth.

31. Always deduct intangible assets (goodwill, etc.) from net worth to derive tangible worth, which is the true cash measure of equity.

32. Always analyze financial statement from the dual perspective of examining historical performance and confirming continued viability as a going concern.

33. Slow moving or excessive inventory levels could be a sign that tangible net worth may be overstated (equity can be reduced as a result of an inventory writedown that wipes out the income statement.)

34. An enterprise's ability to meet current obligations should have a close correlation to its liquidity ratios. There may be exceptions when a supplier extends credit on terms terms different from the terms the enterprise generally receives. Thus, even with the market power to do so, suppliers should not insist on overly favorable payment terms or interest at above market-clearing rates, as the benefit of such overbearing terms is often more than offset by the cost of increased bad debt reserves and impairment of goodwill with the purchaser. On the other hand, a supplier should not let an enterprise sit on the supplier's money or pay creditors preferentially.

35. Always include accrued liabilities, at least accrued current liabilities, as part of accounts payable when calculating accounts payable turnover. Accrued liabilities represent future liabilities that have been incurred but not recorded as an expense.

36. Always use cost of goods sold as the denominator (not sales which also includes profit) when calculating inventory and accounts payable turnover in days.

37. Always use 360 days as the multiplier for annual accounts receivable, inventory, and accounts payable turnover ratios. One compelling reason for doing so is for consistency purposes when calculating annual ad interim statement period turnovers. Three-month ending statement turnovers should be multiplied by 90 days, six-months statements by 180 days, and nine-month ending statements by 270 days.

38. Slow moving accounts receivable are a sign that net income and tangible net worth are overstated.

39. Carefully examine the GAAP (generally accepted accounting principles)/IAS (international accounting standards) balance sheet entry "reserve for bad debt write-offs." True cash flow generating income may be overstated. Reserves for bad debt can shield a firm's balance sheet from the impact of write-offs but

not the anticipated tax cash flow that must be written off using the direct write-off method.

40. In evaluating small, local enterprises, consider a customer visit as part of a financial statement analysis. Visits often provide accurate confirmations and visualizations of the financial data.

41. The ratio of selling, general, and administrative expense (SG&A) to net sales can yield insights into management's efficiency or inefficiency.

42. Liquidity and viability are very closely interrelated - an illiquid or unbalanced financial condition is not characteristic of an ongoing business enterprise.

43. The ratio of fixed assets to total assets is a measure of the enterprise's dependence on the capital markets. An enterprise highly dependent on the capital markets could experience a decline in liquidity and resulting financial performance.

44. The ratio of fixed assets to tangible net worth indicates the degree to which shareholder equity (tangible net worth) has been invested in the fixed assets required to operate the business. Beware of "off balance sheet" financing leasehold arrangements that understate debt.

45. When calculating return metrics such as return on sales, assets, and equity, use the amount added to retained earnings rather than net income as the figure to be divided by sales, assets, or equity.

46. Compare the ratio of inventory to current assets with inventory turnover. This should shed light on the quality of the current ratio.

47. A quick ratio is only as quick as its turnover of accounts receivable in days.

48. Beware of the LBO balance sheet asset entry "cost in excess of assets acquired." This is an intangible asset that should be subtracted from net worth to derive an accurate measure of tangible net worth. The LBO is claiming that the excess of the purchases price paid over book value is a tangible asset.

49. The ratio of funded debt (bank debt, bonds,debentures, and other similar debt instruments) to free cash flow reveals the degree to which the enterprise's earnings are leveraged. See #20, above.

50. Always cross-compare the statement's current ratio with the quick ratio and the turnover for accounts receivable and accounts payable.

51. Always request interim or updated financial information when there is a noticeable decline in financial performance or when there is a material change in prevailing market or economic conditions.

52. Do not be swayed by the market, pundits or public opinion when making a credit or investment decision based on financial statement analysis. If, in the end, the financial statements cannot support a credit extension or investment decision, or if the business model of the enterprise under analysis is not compelling, consider the opinions of others to the contrary as incorrect. An incorrect conclusion by 300 million people is still incorrect.