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**What You See Is Not What You Get,
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Company Financials when Distressed**

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What You See Is Not What You Get, Always! A Distorted but True View of Company Financials when Distressed

Abstract:

Corporate failures and dismantling have become more and more widespread after the late 2007-2008 global crisis and individual as well as bulk numbers of multiple cases are almost as many, and the total economic impact more devastating since the Great Depression. In another study¹, I had discussed the importance of the roles of distressed non-financial firms in concert with the households in this crisis in a holistic network topological structure. In isolation though, the liquidation value² of “the distressed firm” which is different from its going concern value, depending on what type, as well as the determination of financial and operational distresses, becomes a crucial part of the supervisory processes, also for investment purposes of banks and sole investors, if the firm does not recover from any of those.

Keywords: Corporate failure, distressed liquidation value, objectivisation of balance sheet

JEL Classification: E58, G28, G33, M41, M42

¹ Cakir, Murat, ‘A Conceptual Design of “What and How Should a Proper Macro-Prudential Policy Framework Be?” A Globalistic Approach to Systemic Risk and Procuring the Data Needed’.

² Reading through the famous analysis book ‘The Interpretation of Financial Statements’ by Benjamin Graham and Spencer B. Meredith, at page 55, I have rediscovered the principles to *liquidation value of a firm*, although, much later than I have laid down my own. Notwithstanding, one should take my endeavour as an independently developed, though enveloping one of his original claims.

Introduction

The late global crisis of 2007-2008 had startled the authorities first, the investment houses that could survive and those that could not, the non-financial firms, the households and the like, that is all stakeholders, the world over. It was like multiple shocks to the global economic system, like a simulated annealing, and as term suggests, has annealed the whole system in a series, more than a couple of times. I may say a search process for an optimum, this time in a realistic rather than a simulated manner, and each time yielding a local optimum (global sub optimum) has been initiated. Through this period, it was realised that, the entire agents acted in a network-like structure and in concert, and the valuation of the distressed debt for each incumbent has become more important than ever before. In particular, the extreme case of liquidation has required a special treatment of valuation of the distressed firm by looking at the financials out of the ordinary. This needed formulate a practical, simple, and effective method of valuation. In this endeavour, one finds out an unorthodox way of analysing the financials through a demonstration of an exercise I devised based on the principles / assumptions I have laid down.

In the first part, I describe the typical balance sheet. Second part explains the conventional approach and what can go wrong with it when valuing a distressed firm in the liquidation process. Third part conceptualises my valuation approach through making assumptions and laying down the principles. In the fourth part, the balance sheet objectivisation approach is demonstrated via a sample objectivised-balance sheet. Fifth part discusses the findings from the analysis. The final part concludes.

Balance Sheet Defined

Company financials reflect the position of an entity at a given point in time (Balance Sheet), and for a given period of time (Income Statement, Profit and Loss Account, Statement of Cash Flows, etc.).

Investopedia defines the Balance Sheet as “a financial statement that summarizes a company's assets, liabilities and shareholders' equity at a specific point in time. These three balance sheet segments give investors an idea as to what the company owns and owes, as well as the amount invested by shareholders.” It is a financial statement, which can be summarised with the following formula, also called the balance sheet identity:

$$\text{Assets} := \text{Liabilities} + \text{Shareholders' Equity} \quad (2.1)$$

The balance sheet identity can be depicted like so as in Table 1

Table 1. Format of a Typical Balance Sheet

Balance Sheet for XYZ Co. as of Dec 31, 20XX	
Current Assets	Current Liabilities
Fixed Asset	Long Term Liabilities
	Equity
Total Assets	Total Liabilities and Equity

A balance sheet must always balance out with respect to this equivalence definition. It is organised so that the individual account items are listed from top to bottom in order of their liquidity³. That is the liquid items are at the top, whereas not so liquid ones are at the bottom on the assets side. On the liabilities side the ordering of items are usually from short to long-term debt. Equity is listed as the last balance sheet item.

³ Liquidity means that, in case the firm must sell the assets they can be easily converted into cash, and there is little loss of value in terms of cash and equivalents received.

Another categorisation criterion, on which the balance sheet is based, is the tangibility of the balance sheet item. In accounting terms, it refers to the physical being of an item. Examples include, land, vehicles, equipment, inventory, stocks, bonds and cash, etc.

Conventional Valuation Approach Reconsidered

Some items of the balance sheet have subjective, that is fictitious values, and can usually be treated as a balancing residual remaining from more tangible and liquid ones. These may usually include funds related to revaluation. Such items cannot be converted into cash if on the asset side or are not considered as a true liability if on the liabilities side.

Normally, an entity is assessed or evaluated by using the levels of individual items both compared to the ones of its peer companies in a given category (sector, scale, geographical region, competitors etc.), and within the balance sheet itself or compared to other financial or physical items from other statements. This is a holistic approach when all is fine, and the company is good! The valuation methods consider the corporate entities as a whole looking at whether it can and/or will be able to create enough cash to pay out its debts when due, and this is all by assuming the company is still or expected to be a going-concern. What about when going gets rough? The stakeholders get into line to collect their money! Starting from the first-comer the remaining/what is left from the assets of the distressed company is distributed among the stakeholders/claimants. Usually, the strongest ones take positions in the front line, and those that are not covered by legislation like stockholders and trade partners, unlike banks and bondholders, will probably leave with nothing! Even those that are better-covered may not yield the total amount owed, and therefore may incur losses in case of distress. This is one and a very serious flaw of the balance sheet analysis; it considers the company as a whole and a going concern, but does not take the worth of assets should a sudden change in the liabilities arise.

Objectivisation of the Balance Sheet Conceptualised

When the items of the balance sheet are reconsidered, given the risk of distress, I realise that, the balance sheet of a distressed firm will shrink considerably and the balance between the two sides would definitely be lost. In this case, the company is faced with either liquidating some of the assets and pay out debt to release the pressure from the distress or all of them putting up the shutters. Both situations are stressful, the first one being the less. Hence, the finance management should always be vary to not fall into such a position and manage the balance sheet accordingly, and the analyst should be careful about the likelihood of distress and warn the management of the possibility. Therefore, a periodical risk-focussed analysis of a balance sheet should be devised and carried out, informing the stakeholders. I would like to call this type of analysis as *fleshing the cash* out of the entity. This, in fact, is the process of *objectivising* the balance sheet, skimming the lean cash and leaving out the items that are either not cashable or of no use when there emerges an unexpected and immediate need of liquidation. Most might think of the existence of the good old cash flow statement analyses but one should not be confused as the cash flow statement views the company again as a going concern and not in distress, and, therefore, some items may not reflect a true cash flow in case of distress.

Looking at the balance sheet items on the assets side and on the liabilities side from a risk/distress perspective requires making some assumptions. These are:

- Asset items except for the, cash and bank deposits, have to be revalued at liquidation value possibly at market rates and/or values in cash conversion. This is, in reality, fair value accounting practices and/or regulations recommend or impose on accountants. Thus, book values will not be valid and we need weight the items when liquidating. Some assets can take on full par, some that can be sold at market rates may even take on larger than the book values. To be more conservative, I assume the greatest value that an asset can take on would be the book when selling.

- Liability items, including the long-term ones, should be valued regarding all direct and indirect payments related to the outstanding debt/liability, to account for the full potential risk/distress. Hence, it can be safe and proper to acknowledge the items at par or full book values recorded at accounts. This would reflect the total plausible risk that distresses the company.
- Some items on both sides, though suggesting a liquid and tangible item, may not be necessarily so under the catastrophic circumstances. These usually belong to groups of assets and liabilities that constitute items, which can be collected assuming only when there exists good faith/trust between the debtor and the creditor. Thus, they should/must be weighted none.
- For swift processing the taxes due to liquidation sales can be deferred even if the tax authority always comes first to be paid. Some transactions are taxed in-situ though, like sales of marketable securities. These must be valued at market less computed taxes and transaction fees, etc.
- Both on the assets side the concept of long-term loses its meaning as when the distress materialises all the debt will be treated as due no matter how far the maturities are.
- After the simplification process, the objectivised (lean) balance sheet may not balance out! Either the lean assets will be greater, which is safer but less profitable due to lower leverage, or lean liabilities will be greater, which is manageable as long as there is little or no distress likelihood⁴.
- For simplicity's sake, I assumed that fixed assets could be liquidated quickly, though in reality this will most probably not be the case.
- In case of a total systemic collapse, net worth of each individual type of asset would converge to zero or almost zero in case of liquidation.
- For analysis's sake, in this endeavour I'm not going to elaborate the potential losses of employment as well as other economic losses due to a potential bankruptcy.

The potential accounting items on a typical objectivised (lean) balance sheet then are:

- **On the Assets Side**
 - **Current Assets**
 - **Liquid Assets;** cash, corporate deposit accounts, cheques-in-hand,
 - **Marketable Securities;** stock shares, private sector bonds, notes and bills, public sector bonds, notes and bills,
 - **Short-Term Trade Receivables;** accounts receivable (in good faith), notes receivable, discounts on notes receivable(-),
 - **Other Short-Term Receivables;** receivables from shareholders (in good faith), receivables from participations, receivables from affiliated enterprises,
 - **Goods Stocks and Inventories;** raw materials and supplies, work in progress, finished goods, merchandise.
 - **Fixed Assets**
 - **Long-Term Trade Receivables;** accounts receivable (in good faith), notes receivable, discounts on notes receivable(-),
 - **Other Long-Term Receivables;** receivables from shareholders (in good faith), receivables from participations, receivables from affiliated enterprises,

⁴ It depends on how much aggressive the management is towards profitability through financial leverage, which I will not delve into, as it is out of the scope of this work.

- **Financial Fixed Assets;** non-marketable securities, provisions for non-marketable securities (-), participations, subscribed capital to participations (-), provision for capital share in participations (-), affiliated enterprises, subscribed capital to affiliated enterprises (-), provision for capital shares in affiliated enterprises (-),
- **Tangible Fixed Assets;** land, land improvements, buildings, machinery, plant and equipment, motor vehicles, furniture and fixtures,
- **Other Long-Term Assets;** inventories and tangible fixed assets to be sold.
- **On the Liabilities Side**
 - **Short-Term Liabilities**
 - **Financial Liabilities;** bank loans, financial leasing payables, deferred financial leasing payables costs (-), principal instalments and interest payments of long-term loans, principal instalments and interest payments of bonds, commercial papers issued,
 - **Short-Term Trade Payables;** accounts payable (in good faith), notes payable, discount on notes payable (-),
 - **Other Short-Term Debts;** payables to shareholders, payables to participations, payables to affiliated enterprises,
 - **Taxes and Other Liabilities Payable;** taxes and funds payable, deferred taxes and other liabilities over-due,
 - **Provisions for Liabilities and Charges;** provisions for income taxes and other liabilities to government, prepaid income taxes and other liabilities to government (-).
 - **Long-Term Liabilities**
 - **Financial Liabilities;** bank loans, financial leasing payables, deferred financial leasing payables costs (-), bonds issued, other securities issued, adjustments for the securities issued under par value (-)
 - **Long-Term Trade Payables;** accounts payable (in good faith), notes payable, discount on notes payable (-),
 - **Other Long-Term Debts;** payables to shareholders, payables to participations, payables to affiliated enterprises, deferred and scheduled payments to government
 - **Other Long-Term Liabilities;** value added taxes deferred to next years.

These accounting items with their possible weight boundaries on a typical stylised objectivised (lean) balance sheet is shown on Table 2.

Objectivised Balance Sheet Valuation Approach Demonstrated

Carrying through the objectivising exercise over the balance sheet, now both sides need to be weighted. For this, I carry out an analysis where in the three possible scenarios weights take on three different values for assets (best case 100%, most likely 75%, worst case 50%) except for the cash and corporate deposit accounts⁵. Those that are marked as “*in good faith*” are assets or liabilities that the stakeholder chooses to pay

⁵ Different combinations are possible for different asset classes, but to keep the analysis simple and just for the sake of an example I use this weighting scheme. Therefore, I use a set of constant predefined weights for all asset classes.

in case of assets and not claim for payment in case of liabilities⁶, that is if an asset in good faith is collected or cashed it is reflected in the lean balance sheet at the par weighted with the corresponding value. On the other hand, if a liability in good faith is not claimed, it is reflected in the lean balance sheet at null value. This analysis can be applied to individual as well as to balance sheets aggregated and/or consolidated at sector, scale and geographical levels. (Table 3 – Table 5)

Findings Discussed

The results obtained reveal that under different scenarios

- The levels of lean assets and lean liabilities vary depending on the weights and on the payment likelihoods of in good faith items. The ratio of lean assets to lean liabilities and the decay factors change accordingly.
- The decay factors⁷ are usually very close, but not necessarily equal to the weights. These numbers are directly calculated values from the balance sheet observations; they are not estimates. Such estimates though, can be obtained from real distressed liquidation cases.
- The ratios of lean assets to lean liabilities are the highest when in good faith items are effective on both sides (all receivables are collected at the best market value and none of the payables are paid out). They are the lowest when they are not effective on any of these sides (no receivable can be collected and all the payables have to be paid out). Both cases are irrespective of the levels of those balance sheet items except when one asset or liability item is in good faith while others are not. The variability can be tested by devising more complicated scenarios or by using the real case observations.
- The worst ratios are observed in the worst case scenario where none of the in good faith items are observed and with the lowest weights, as can be expected.

⁶ We end up with twelve possible combinations of scenarios including assets weighted in good faith (100, 75, 50 per cents), liabilities weighted in good faith (100, 75, 50 per cents), both in good faith, and none.

⁷ Decay factor is the percentage of the original value on the balance sheet item after the objectivisation exercise.

Objectivised (Lean) Balance Sheet for XYZ Co. as of Dec 31, 20XX					
ASSETS			LIABILITIES		
	VALID FOR LIQUIDATION	WEIGHT (%)		VALID FOR LIQUIDATION	WEIGHT (%)
Current Assets			Short Term Liabilities		
Liquid Assets			Financial Liabilities		
Cash	Y	100	Bank Loans	Y	<=100
Checks Received / Cheques-In-Hand	Y	<=100	Financial Leasing Payables	Y	<=100
Corporate Deposit Accounts	Y	100	Deferred Financial Leasing Payables Costs (-)	Y	<=100
Marketable Securities			Principal Instalments And Interest Payments Of Long-Term Loans	Y	<=100
Securities (Stock Shares)	Y	<=100	Principal Instalments And Interest Payments Of Bonds	Y	<=100
Private Sector Bonds, Notes And Bills	Y	<=100	Commercial Papers Issued	Y	<=100
Public Sector Bonds, Notes And Bills	Y	<=100	Short-Term Trade Payables		
Short-Term Trade Receivables			Accounts Payable	Y (In Good Faith)	<=100 or 0
Accounts Receivable	Y (In Good Faith)	<=100 or 0	Notes Payable	Y	<=100
Notes Receivable	Y	<=100	Discount On Notes Payable (-)	Y	<=100
Discount On Notes Receivable (-)	Y	<=100	Other Short-Term Debts		
Other Short-Term Receivables			Payables To Shareholders	Y (In Good Faith)	<=100 or 0
Receivables From Shareholders	Y (In Good Faith)	<=100 or 0	Payables To Participations	Y (In Good Faith)	<=100 or 0
Receivables From Participations	Y	<=100	Payables To Affiliated Enterprises	Y (In Good Faith)	<=100 or 0
Receivables From Affiliated Enterprises	Y	<=100	Taxes And Other Liabilities Payable		
Goods Stocks And Inventories			Taxes And Funds Payable	Y	<=100
Raw Materials And Supplies	Y	<=100	Deferred Taxes And Other Liabilities Over-Due	Y	<=100
Work In Progress	Y	<=100	Provisions For Liabilities And Charges		
Finished Goods	Y	<=100	Provisions For Income Taxes And Other Liabilities To Government	Y	<=100
Merchandise	Y	<=100	Prepaid Income Taxes And Other Liabilities To Government (-)	Y	<=100
Fixed Assets			Long Term Liabilities		
Long-Term Trade Receivables			Financial Liabilities		
Accounts Receivable	Y (In Good Faith)	<=100 or 0	Bank Loans	Y	<=100
Notes Receivable	Y	<=100	Financial Leasing Payables	Y	<=100
Discount On Notes Receivable (-)	Y	<=100	Deferred Financial Leasing Payable Costs (-)	Y	<=100
Other Long-Term Receivables			Bonds Issued	Y	<=100
Receivables From Shareholders	Y (In Good Faith)	<=100 or 0	Other Securities Issued	Y	<=100
Receivables From Participations	Y	<=100	Adjustments For The Securities Issued Under Par Value (-)	Y	<=100
Receivables From Affiliated Enterprises	Y	<=100	Long-Term Trade Payables		
Financial Fixed Assets			Accounts Payable	Y (In Good Faith)	<=100 or 0
Non Marketable Securities	Y	<=100	Notes Payable	Y	<=100
Provisions For Non Marketable Securities (-)	Y	<=100	Discount On Notes Payable (-)	Y	<=100
Participations	Y	<=100	Other Long-Term Debts		
Subscribed Capital To Participations (-)	Y	<=100	Payables To Shareholders	Y (In Good Faith)	<=100 or 0
Provisions For Capital Share In Participations (-)	Y	<=100	Payables To Participations	Y (In Good Faith)	<=100 or 0
Affiliated Enterprises	Y	<=100	Payables To Affiliated Enterprises	Y (In Good Faith)	<=100 or 0
Subscribed Capital To Affiliated Enterprises (-)	Y	<=100	Deferred And Scheduled Payments To Government	Y	<=100
Provision For Capital Shares In Affiliated Enterprises (-)	Y	<=100	Other Long-Term Liabilities		
Tangible Fixed Assets			Value Added Taxes Deferred To The Next Years	Y	<=100
Land	Y	<=100			
Land Improvements	Y	<=100			
Buildings	Y	<=100			
Machinery, Plant And Equipment	Y	<=100			
Motor Vehicles	Y	<=100			
Furniture And Fixtures	Y	<=100			
Other Long-Term Assets					
Inventories And Tangible Fixed Assets To Be Sold	Y	<=100			
Total Objectivised (Lean) Assets			Total Objectivised (Lean) Liabilities		

Table 2. A Stylised Objectivised Balance Sheet with Weights

Conclusion and Future Research

The conceptualisation and the objectivisation exercise shows that the balance sheet of a distressed firm should be analysed differently from the balance sheet of a going concern. Under different scenarios, I obtained miscellaneous results, which reveal that as the scenarios worsen where no debtor pays its debt (net change in receivables decrease or is zero) and/or no creditor pardons any liability (net change in payables increase or is zero), that is, the more conservative the scenario is the lower the net liquidation value of a distressed firm.

This isolated calculation of distressed liquidation value obtained with my approach is useful for many purposes. Banks can use the yielding results for credit pricing. Authorities can use this method through their systemic risk evaluations to estimate a more realistic burden over the system. Examples abound.

In future, my plan is to use this method with real firm data and try to find estimates of the decay factors. Also, I will try to figure out if this method can be of value in bankruptcy prediction.

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