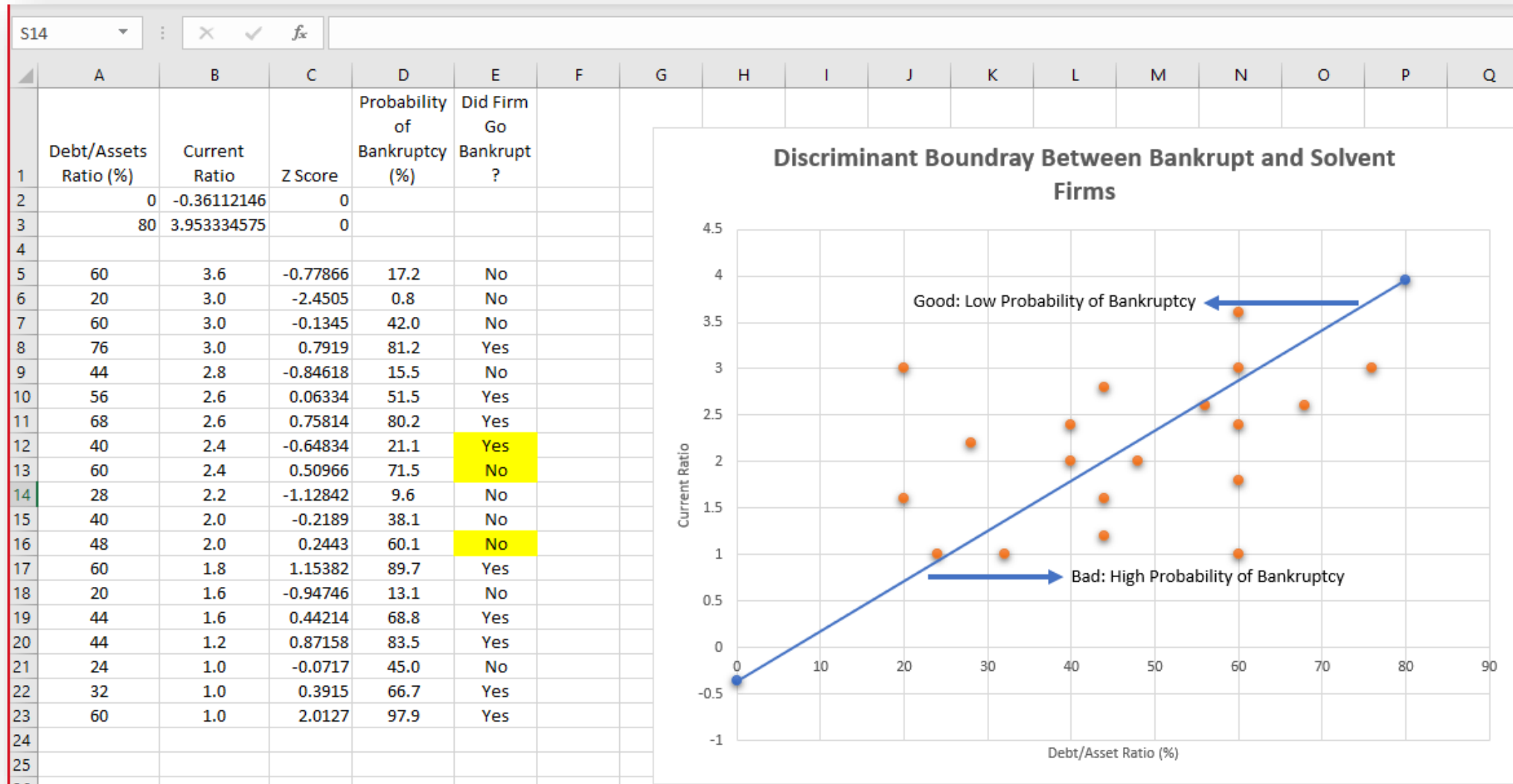


Understanding the Defense Industry

Part 3 - Financial Capability

12 November 2024

Multiple Discriminant Analysis



$$\text{MDA} = a + b_1 (\text{Current Ratio}) + b_2 (\text{Debt Ratio})$$

$$\text{MDA} = -0.3877 - 1.0736(\text{Current Ratio}) + 0.0579(\text{Debt Ratio})$$

Positive MDA predicts Bankruptcy

Negative MDA predicts Solvency

A Tool is Worth a Thousand Words

	A	B	C	D	E	F	G	H	I	J	K	
1	mm/dd/20yy	Total Debt	Total Assets				mm/dd/(20yy-1)	Total Debt	Total Assets			
2		0.0	0.0					0.0	0.0			
3												
4	Debt Ratio (%):	#DIV/0!					Debt Ratio (%):	#DIV/0!				
5												
6		Current Assets	Current Liabilities					Current Assets	Current Liabilities			
7		0.0	0.0					0.0	0.0			
8												
9	Current Ratio:	#DIV/0!					Current Ratio:	#DIV/0!				
10												
11	MDA Analysis:	= -0.3877 - 1.0736(Current Ratio) + 0.0579(Debt Ratio)					MDA Analysis:	= -0.3877 - 1.0736(Current Ratio) + 0.0579(Debt Ratio)				
12	MDA =	#DIV/0!					MDA =	#DIV/0!				
13												
14	Positive MDA predicts Bankruptcy											
15	Negative MDA predicts Solvency											
16	MDA between negative 1.5 and positive 1.5 may warrant deeper analysis											

Z-Score Formula

$$\text{Z-Score} = 1.2A + 1.4B + 3.3C + 0.6D + 1.0E$$

Where:

- A. = (Current Assets – Current Liabilities) / Total Assets
- B. = Retained Earnings / Total Assets
- C. = Earnings Before Interest and Taxes / Total Assets
- D. = Market Value of Equity / Total Liabilities
(where: Market Value of Equity = Number of Outstanding Shares * Stock's Price per Share)
- E. = Sales / Total Assets

A Tool is Worth a Thousand Words

	A	B	C	D	E	F	G
1	Current Assets:			Total Assets			
2	Current Liabilities:			Sales:			
3	Total Liabilities:						
4	Retained Earnings:						
5	EBIT:						
6	Market Value of Equity:	0					
7	Price/Share						
8	# of Common Shares		Outstanding ao (fill in Date)				
9							
10	A	#DIV/0!			Z = 1.2A + 1.4B + 3.3C + 0.6D + 1.0E		
11	B	#DIV/0!			Z =	#DIV/0!	
12	C	#DIV/0!					
13	D	#DIV/0!					
14	E	#DIV/0!					
15							
16	Altman Z-Score < 1.8 predicts Bankruptcy						
17	Altman Z-Score > 3.0 predicts Solvency						
18	Altman "zone of ignorance" is 1.81 to 2.99 and may warrant deeper analysis						
19	2.675 is Altman 50-50 of Bankruptcy						