

Fundamental

Research Corp.

Investment Analysis for Intelligent Investors

December 5, 2017

Shoal Games Ltd. (TSXV: SGW / OTCQB: SGLDF) – Rooplay at 220,000+ Downloads

Sector/Industry: Mobile Games

www.shoalgames.com

Market Data (as of December 5, 2017)

Current Price	C\$0.54
Fair Value	C\$1.63
Rating*	BUY
Risk*	5 (Highly Spec)
52 Week Range	C\$0.37 – C\$0.62
Shares O/S	65,048,592
Market Cap	C\$35.13 mm
Current Yield	N/A
P/E (forward)	N/A
P/B	N/A
YoY Return	0.0%
YoY TSXV	5.8%

*see back of report for rating and risk definitions

*All the figures are in US\$ unless otherwise specified.



Highlights

- Rooplay has had over 220,000 downloads, up from over 120,000 at the time of our previous report in August 2017. Rooplay was launched on the Android platform in May 2017.
- The platform currently offers over 500 titles, and is available in 27 different languages in 135 countries.
- **According to Metaari (market research firm), educational games for early childhood will almost triple by 2022.**
- The company intends to gain traction through direct marketing to consumers and through partnerships with mobile handset manufacturers, cable companies, in-flight entertainment, and mobile telecommunications operators through a revenue share model. Management is in discussions with a number of mobile operators worldwide. Even a single distribution deal, we estimate, will allow Rooplay to reach significant audience levels at a very low cost.
- In October 2017, completed the final tranche of a \$1.06 million financing by issuing 3.02 million units at a unit price of \$0.35.

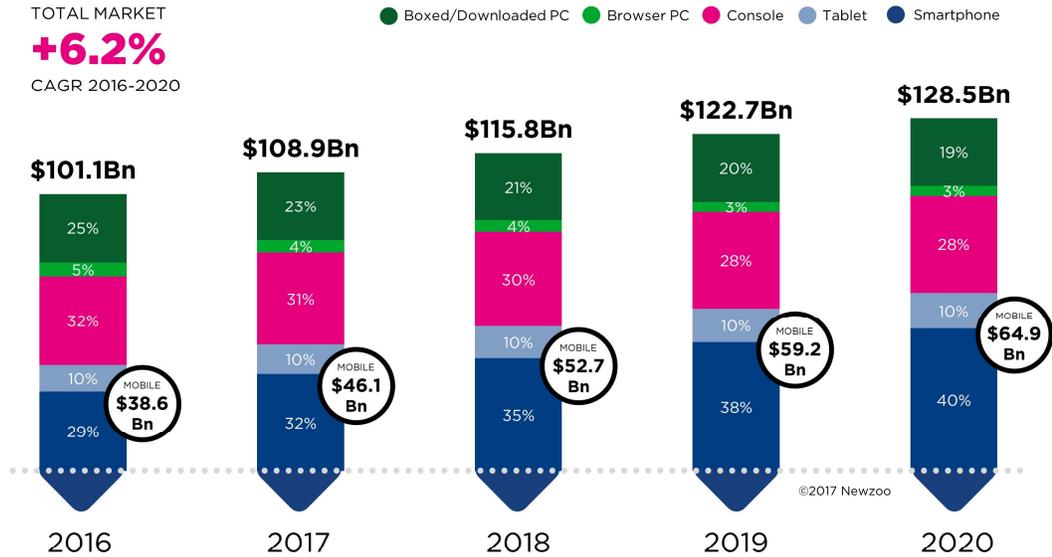
Key Financial Data (FYE - Dec 31)

(US\$)	2015	2016	2017E	2018E
Cash	570,086	60,190	236,166	428,494
Working Capital	454,447	13,896	29,225	339,897
Total Assets	1,129,526	129,093	264,079	656,335
LT Debt to Capital	0.0%	928.0%	1059.2%	151.3%
Revenues	111,610	278,921	89,888	2,932,650
Net Income	(2,965,682)	(3,156,302)	(2,015,248)	(1,189,764)
EPS	-0.05	-0.05	-0.03	-0.02

Educational games for early childhood estimated to triple by 2022

In a recent update, market research firm Newzoo estimated that the global games market will reach \$109 billion this year (8% YoY growth), and increase to \$129 billion by 2020. Revenues in 2017 are expected to come from 2.2 billion gamers worldwide.

The Global Games Market



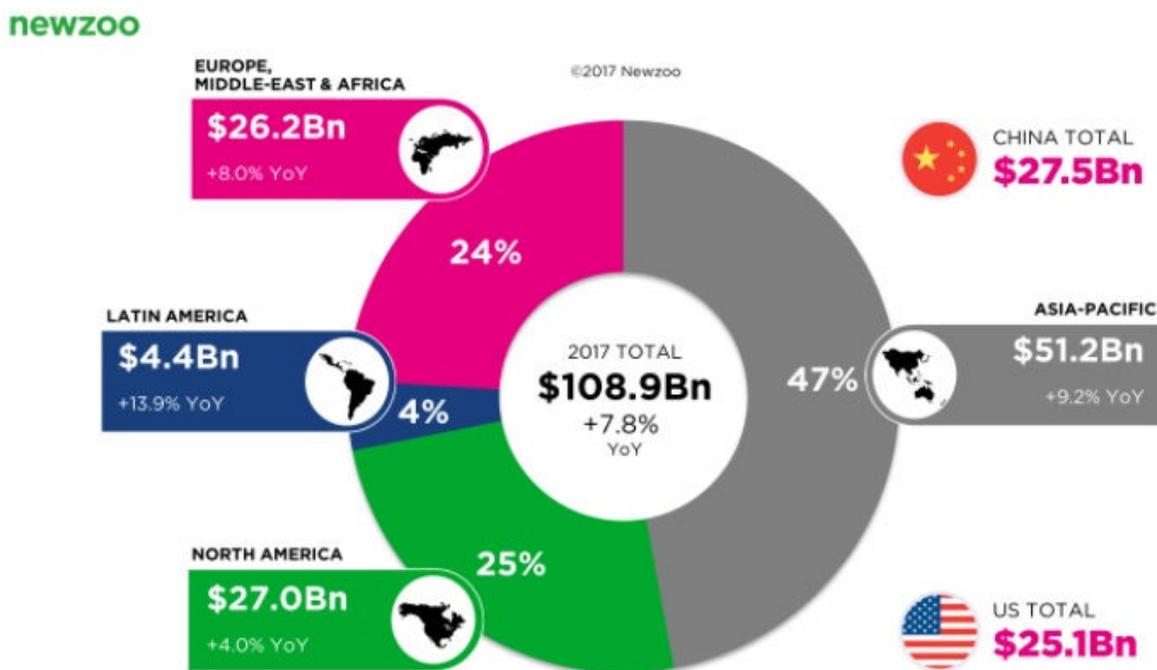
Source: ©Newzoo | Q2 2017 Update | Global Games Market Report
newzoo.com/globalgamesreport



As shown in the above chart, the mobile market (including smartphones and tablets), accounting for 42% of the total, is estimated to grow by 19% this year to \$46 billion. This market is expected to account for 50% of the total, or \$65 billion, in 2020.

Geographically, the APAC region is estimated to generate \$51.2 billion this year (up 9% YoY), or 47% of the total. North America is the second largest region, with estimated revenues of \$27 billion in 2017, up 4% YoY.

The Global Games Market in 2017 by Region



Source: Newzoo

According to Research and Markets, the global game based learning market is estimated to be US\$3.49 billion in 2017, and is expected to grow at a rate of 19.60% p.a. to \$8.5 billion by 2022. Another research firm, Metaari, predicts the market will grow from \$3.2 billion in 2017, at a rate of 20.2% p.a., to reach \$8.1 billion by 2022. The U.S. market alone is estimated to grow at a rate of 24.3% p.a. from \$0.27 billion in 2017, to \$0.80 billion by 2022.

Consumers were the top purchasers of educational games in 2017, followed by primary schools and corporations. Metaari’s study also indicated that the highest revenue generating products are early childhood learning games, brain trainers, and language learning games. **Metaari estimates that educational games designed for early childhood will almost triple by 2022 – a highly encouraging indicator for Shoal’s Rooplay.**

Rooplay has had over 220,000 downloads, up from over 120,000 at the time of our previous report in August 2017. Rooplay is a games / educational platform primarily targeting kids aged 2 to 10 years. Rooplay’s primary advantage is that it is designed to be totally safe for kids as it has no advertisements, no in-app purchases, no outbound links, no instant messaging, and no social networks. These are key issues with existing competing platforms. With over 500 games on the platform, we believe that Shoal has a significant first mover advantage in the growing EdTech space focused on games for kids. Rooplay is currently available in 27 different languages in 135 countries.

Rooplay at 220,000+ Downloads

One of Shoal’s primary strategies to quickly gain mass adoption is to license popular intellectual property rights for use in their apps. Games associated with popular brands / characters are likely to instantly appeal and capture attention, allowing Shoal to attract a much larger user-base at significantly low acquisition costs. The following chart shows the company’s key licensing partners:

Licensing Partners



Source: Company

Shoal currently has 12 originals – all of which are not only included in the Rooplay platform, but also available as stand-alone apps on Google Play.

Rooplay is currently only available on Android mobile devices. Management estimates that Rooplay will be available on most platforms and devices (Apple, Google, Mobile Phones, Tablets, and Computers) in the next few months.

The company intends to gain traction through direct marketing to consumers and through partnerships with mobile handset manufacturers, cable companies, in-flight entertainment, and mobile telecommunications operators through a revenue share model. Our discussions with management indicated that management has completed negotiations with several distribution partners, and is in discussions with several additional mobile/cable operators worldwide. **Considering that such operators have millions of subscribers, even a single distribution deal will allow Rooplay to reach significant audience levels at a very low cost.** Note that the user acquisition cost of Rooplay is zero when acquired through their distribution partners.

In November 2017, Shoal announced the formation of an Advisory Board with two high profile members. Brief biographies follow below:

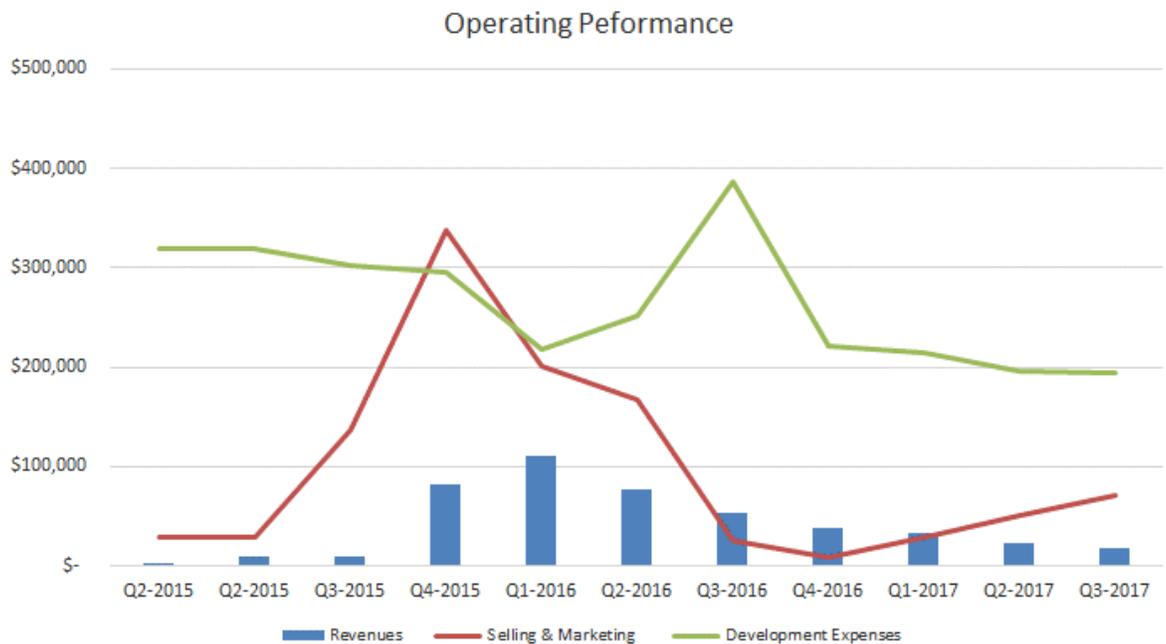
- **Stan Chow** is a 25-year digital media executive and entrepreneur who has held executive and management positions at Disney, Zynga and Electronic Arts across

North America and East Asia. Stan is currently the Entrepreneur in Residence at Vanedge Capital.

- **Dave Long** is an entrepreneur and inventor of the blockbuster Scene It? DVD game which sold more than 20 million copies and was acquired by Paramount Pictures. Dave's current venture, Exponential Entertainment, focuses on the development of digital and mobile games and has been creating interactive games for Comcast's X1 platform.

Financials

Q3-2017 revenues were \$19k. Revenues have experienced a declining trend since Q1-2016, as shown in the chart below, as a result of the shift in focus from bingo gaming apps to Rooplay.



Source: Company Data

The company started ramping up marketing expenses in Q2-2017, with the launch of Rooplay. In Q3-2017, Shoal spent \$71k in selling and marketing versus just \$9k in Q4-2016. Management expects to spend approximately \$75k in Q4-2017.

In the first nine months of 2017, Shoal reported EBITDA of -\$1.24 million versus -\$1.88 million the same period last year. The net loss was \$1.29 million (EPS: -\$0.02) versus \$2.41 million (EPS: -\$0.04) in the same period last year.

Revenue / EBITDA / Net Losses



Source: Company Data

Management estimates 2017 operating expenses (including G&A, compensation, consulting, and development expenses) will be approximately \$1.9 million, including development expenses of approximately \$1.1 million.

Free cash flows were -\$0.122 million in the first nine months of 2017, versus -\$2.03 million in the same period last year.

Summary of Cash Flows	2016 (9M)	2017 (9M)
Cash Flows from Operations	(2,022,550)	(1,212,089)
Cash Flows from Investing	(5,104)	(3,640)
Cash Flows from Financing	1,539,985	1,973,624
Net Change	(487,669)	757,895
Free Cash Flows	(2,027,654)	(1,215,729)

Source: Company Data

At the end of Q3-2017, the company had \$0.82 million in cash. Working capital and the current ratio were \$0.65 million, and 3.9x, respectively.

Balance sheet and cash flows

Liquidity Analysis	2016	Q3-2017
Cash	\$60,190	\$818,085
Working Capital	\$13,896	\$647,600
Current Ratio	1.14	3.93
Debt / Capital	942.3%	72.9%
LT Debt / Capital	928.0%	72.9%
EBIT Interest Coverage Ratio	0.2	n/a

Source: Company Data

The company has a line of credit and loan arrangement with the Chairman, Tarnie Williams, and another major shareholder, for up to \$5 million; of which, \$0.59 million was drawn at the end of Q3.

Subsequent to the quarter-end, Shoal completed the final tranche of a \$1.06 million financing by issuing 3.02 million units at a unit price of \$0.35. Each unit consisted of a common share and a warrant (term – 1 year, exercise price - \$0.44 per share for the first six months, C\$0.52 per share for the subsequent six months).

Stock options and warrants: The company has 1.61 million options (Weighted average exercise price of C\$0.47) and 5.34 million warrants (weighted average exercise price of C\$0.53) outstanding. **Currently, 1.61 million options and 3.02 million warrants are in the money, indicating that the company can raise up to C\$2.21 million if they all are exercised.**

We have revised our revenue forecasts as we pushed out the company’s marketing campaign for Rooplay.

Revenue Projections

Rooplay	2018E	2019E	2020E	2021E
Marketing Dollars	\$350,000	\$1,000,000	\$2,000,000	\$4,000,000
Avg Subscribers	61,250	175,000	350,000	700,000
Subscription Rate (annual)	\$48	\$48	\$48	\$48
Revenues	\$2,932,650	\$11,311,650	\$25,137,000	\$50,274,000

Source: FRC

Valuation

STATEMENTS OF OPERATIONS					
(in US\$)- YE Dec 31st	2017E	2018E	2019E	2020E	2021E
Revenues	89,888	2,932,650	11,311,650	25,137,000	50,274,000
Cost of Sales	-	1,173,060	5,090,243	11,311,650	22,623,300
Gross Profit	89,888	1,759,590	6,221,408	13,825,350	27,650,700
Expenses					
Selling & Marketing	229,969	350,000	1,000,000	2,000,000	4,000,000
Development	1,092,390	1,310,868	1,966,302	2,949,453	4,424,180
Stock Based Compensation					
Compensation & Consulation	477,294	715,941	894,926	1,118,657	1,398,321
Bad Debt Expense					
G & A	324,063	567,110	992,443	1,984,885	3,969,771
EBITDA	-2,033,828	-1,184,329	1,367,737	5,772,355	13,858,429
Amortization	6,089	5,436	5,174	5,070	5,028
EBIT	-2,039,917	-1,189,764	1,362,563	5,767,285	13,853,401
Interest & Bank Charges					
Exchange rate and Unusual items					
EBT	-2,039,917	-1,189,764	1,362,563	5,767,285	13,853,401
Unusual gain or loss	24,669				
Income Taxes			408,769	1,730,185	4,156,020
Net Earnings for the period	-2,015,248	-1,189,764	953,794	4,037,099	9,697,381

Source: FRC

We are adjusting our fair value estimate to C\$1.63 per share from C\$1.77 per share, as we pushed out Rooplay's growth projections.

Risks

DCF Valuation							
	Q4-2017E	2018E	2019E	2020E	2021E	2022E	Terminal
Funds Flow from Operations (US\$)	(763,427)	(1,184,329)	958,968	4,042,169	9,702,408	18,680,148	
Change in Working Capital (US\$)	127,004	(118,344)	(344,443)	(592,541)	(1,085,114)	(1,559,042)	
Cash from Operations (US\$)	(636,423)	(1,302,673)	614,525	3,449,629	8,617,294	17,121,106	
CAPEX (US\$)	(1,360)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	
Free Cash Flow (US\$)	(637,783)	(1,307,673)	609,525	3,444,629	8,612,294	17,116,106	
Present Value (US\$)	(637,783)	(1,137,107)	460,889	2,264,899	4,924,107	8,509,730	83,906,280
Discount Rate	15%						
Terminal Growth	3%						
Present Value (C\$)	\$108,120,117						
Cash - Debt (C\$)	\$439,247						
Fair Value (C\$)	\$108,559,364						
Shares O/S*	66,692,065						
Value per Share (C\$)	\$1.63						

* long-term C\$/US\$ - 1.1

The following risks, though not exhaustive, may cause our estimates to differ from actual results:

- The company’s primary app, Rooplay, is in early stages.
- Attracting players and keeping them engaged is critical and requires continuous development and innovation.
- The social games sector is highly competitive.
- The company may have to pursue equity financings, which may dilute existing shareholders.
- The social games sector is not currently subject to any material regulations. Any unfavorable changes in regulations in the future may impact the company’s business.
- Management and insiders own over 75% - 80% of the outstanding shares. Therefore, the liquidity and the average daily trading volume of SGW’s shares are low at this time.

We maintain our risk rating of 5 (Highly Speculative).

APPENDIX

STATEMENTS OF OPERATIONS					
(in US\$)- YE Dec 31st	2014	2015	2016	2017E	2018E
Revenues	32,470	111,610	278,921	89,888	2,932,650
Cost of Sales	482,013	482,012	482,013	-	1,173,060
Gross Profit	-449,543	-370,402	-203,092	89,888	1,759,590
Expenses					
Selling & Marketing	247,258	549,534	403,523	229,969	350,000
Development	1,181,382	1,230,216	1,077,638	1,092,390	1,310,868
Stock Based Compensation			257,293		
Compensation & Consulation	532,287	438,572	419,166	477,294	715,941
Bad Debt Expense			27,666		
G & A	212,649	356,647	231,404	324,063	567,110
EBITDA	-2,623,119	-2,945,371	-2,619,782	-2,033,828	-1,184,329
Amortization	3,470	3,467	3,570	6,089	5,436
EBIT	-2,626,589	-2,948,838	-2,623,352	-2,039,917	-1,189,764
Interest & Bank Charges	510	1,089	155		
Exchange rate and Unusual items	-44,617	-33,758	-33,020		
EBT	-2,670,696	-2,981,507	-2,656,217	-2,039,917	-1,189,764
Unusual gain or loss	6,677,759	16,305	-498,791	24,669	
Income Taxes	848	480	1,294		
Net Earnings for the period	5,062,233	-2,965,682	-3,156,302	-2,015,248	-1,189,764
EPS	0.07	-0.05	-0.05	-0.03	-0.02

BALANCE SHEET					
(in US\$)- YE Dec 31st	2014	2015	2016	2017E	2018E
Assets					
Cash	2,876,386	570,086	60,190	236,166	428,494
Accounts receivable	122,056	44,948	17,194	8,989	175,959
Prepaid expenses	14,367	17,205	33,494	1,798	35,192
Current Assets	3,012,809	632,239	110,878	246,953	639,645
Property and equipment	9,269	6,314	10,148	9,059	8,624
Other Assets	964,025	482,013	-	-	-
Security Deposits	10,642	8,960	8,067	8,067	8,067
Total Assets	3,996,745	1,129,526	129,093	264,079	656,335
Liabilities & Shareholders' Equity					
Accounts payables & accrued liabilities	107,911	145,226	91,626	212,372	294,392
Deferred income					
Loans payable/ borrowings					
Derivative					
Related parties	48,668	32,566	5,356	5,356	5,356
Current Liabilities	156,579	177,792	96,982	217,728	299,748
Loans payable			347,698	547,698	547,698
Shareholder's Equity					
Share Capital	19,257,040	19,334,290	21,223,271	23,052,759	24,552,759
Foreign Currency Translation	24,580	24,580	24,580	24,580	24,580
Deficit	-15,441,454	-18,407,136	-21,563,438	-23,578,686	-24,768,450
Total Liabilities & Shareholders' Equity	3,996,745	1,129,526	129,093	264,079	656,335

STATEMENTS OF CASH FLOWS					
(in US\$)- YE Dec 31st	2014	2015	2016	2017E	2018E
Operating Activities					
Net earnings for the period	5,062,233	-2,965,682	-3,156,302	-2,015,248	-1,189,764
Items not involving cash					
Depreciation	3,470	3,467	3,570	6,089	5,436
Trophy Bingo Amortization	482,013	482,012	482,013		
Gain on sale of domain name/others	-6,677,759	-16,305	262,464		
	-1,130,043	-2,496,508	-2,408,255	-2,009,159	-1,184,329
Accounts Receivable	159,201	77,108	27,754	8,205	-166,970
Other Assets	877	1,682	893		
Prepaid Expenses	97,728	-2,838	-16,289	31,696	-33,394
Security Deposits					
Accounts payable and accrued expenses	-30,260	37,518	-80,810	120,746	82,020
Changes in working capital	227,546	113,470	-68,452	160,647	-118,344
Cash from (used in) operations	-902,497	-2,383,038	-2,476,707	-1,848,512	-1,302,673
Financing activities					
Proceeds from secured borrowings, net			400,811	200,000	
Private Placement	1,400,000		1,573,404	1,829,488	1,500,000
Exercise of Stock Options	9,350	77,250			
Cash provided by financing activities	1,409,350	77,250	1,974,215	2,029,488	1,500,000
Investing activities					
Acquisition of Equipment	-4,969	-512	-7,404	-5,000	-5,000
Cash used in investing activities	1,878,330	-512	-7,404	-5,000	-5,000
Increase (decrease) in cash	2,385,183	-2,306,300	-509,896	175,976	192,327
Cash beginning of period	491,203	2,876,386	570,086	60,190	236,166
Cash end of period	2,876,386	570,086	60,190	236,166	428,494

Fundamental Research Corp. Equity Rating Scale:

Buy – Annual expected rate of return exceeds 12% or the expected return is commensurate with risk

Hold – Annual expected rate of return is between 5% and 12%

Sell – Annual expected rate of return is below 5% or the expected return is not commensurate with risk

Suspended or Rating N/A— Coverage and ratings suspended until more information can be obtained from the company regarding recent events.

Fundamental Research Corp. Risk Rating Scale:

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2 (Below Average Risk) - The company operates in an industry where the fundamentals and outlook are positive. The industry and company are relatively less sensitive to systematic risk than companies with a Risk Rating of 3. The company has a history of profitability and has demonstrated its ability to generate positive free cash flows (though current free cash flow may be negative due to capital investment). The company’s capital structure is conservative with little to modest use of debt.

3 (Average Risk) - The company operates in an industry that has average sensitivity to systematic risk. The industry may be cyclical. Profits and cash flow are sensitive to economic factors although the company has demonstrated its ability to generate positive earnings and cash flow. Debt use is in line with industry averages, and coverage ratios are sufficient.

4 (Speculative) - The company has little or no history of generating earnings or cash flow. Debt use is higher. These companies may be in start-up mode or in a turnaround situation. These companies should be considered speculative.

5 (Highly Speculative) - The company has no history of generating earnings or cash flow. They may operate in a new industry with new, and unproven products. Products may be at the development stage, testing, or seeking regulatory approval. These companies may run into liquidity issues, and may rely on external funding. These stocks are considered highly speculative.

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