Valuation report on the acquisition of Starlight

FY 2014

Determining the value of the target (Starlight) and whether or not the purchase is possible through financing provided in part by Eastern Seaboard Bank.

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# Background/Purpose

## background

Collectibles Inc. is a producer of consumer goods that current makes products such as dolls and jewelry. Their products are produced in China and sold in numerous small shops as well as on the Television Shopping Network (TSN). Although Collectibles is currently operating at a profit, they have recently become interested in acquiring the assets of Starlight Jewelry Manufacturing Inc. (thus resulting in a merger of the two companies).

Starlight is a company that currently manufactures and sells low-end jewelry in the United States. Through this merger, both companies would achieve numerous operating efficiencies including reductions in cost of goods sold of 1% and $600,000 in salary savings. In addition to these synergies, Collectibles also expects the acquisition to complement the higher-priced custom jewelry it currently sells (thus appealing to the buying habits of its existing customers) and to eliminate capital expenditures in the foreseeable future.

If the merger is approved, the acquisition will be paid for through a loan (accounting for 60% of the acquisition price) and additional equity from venture capitalists (accounting for the remaining 40%). In addition to this, the accounts payable of the target would be assumed. However, in order for the purchase to be viable, Collectibles Inc. (which would now include Starlight Inc.) would have to maintain a Quick Ratio of at least 1.25 and a Debt Service Coverage Ratio of at least 1.75 to satisfy Eastern Seaboard Bank’s loan requirements.

## Purpose

The nature of this report is to communicate what the value of the company is calculated to be, whether or not this purchase is feasible, and if it is, what the financing structure would look like. In the analysis section, the assumptions made are presented as well as what financial statements are expected to look like post-acquisition. The report then concludes with a recommendation on whether or not merging with Starlight (i.e. the target) is in Collectibles’ (i.e. the buyer) best financial interest.

# Analysis

## General Assumptions Made

In determining the value of the target the following basic assumptions were made:

* Only the assets of Starlight Inc. will be assumed (excluding cash).
* The accounts payable of the target will be assumed.
* The purchase will be financed through 60% debt and 40% equity.
* Pro forma financial statement numbers will be calculated based on historical data using the percentage of sales approach (e.g. cost of goods sold will be forecasted using the average percent of COGS from 2011 to 2014 over total sales for the year projected), unless otherwise noted below.
* If the aforementioned ratios are not met, the merger will not be recommended to Collectibles Inc.

## Projected INcome Statements

Through the merger of Collectibles and Starlight Inc., net income after taxes is expected to increase from $6,157,743 to $10,974,207 by 2018 (*see Exhibits I-III*). This is attributable to operating synergies, as demonstrated by the line item *Synergies from Cost Reductions* on the income statement. The line item represents $600,000 of annual salary savings and a reduction of 1% in cost of goods sold at the consolidated level. The 78% in net income is also attributable in part to the fact that no more capital expenditures will occur as operating synergies will occur with the combination of both entities fixed assets.

As asset lives and historical costs were not provided and net fixed assets are presented at a negative balance in Starlight’s historical financial statements, depreciation is set at $0 for subsequent years for both firms in order to depict a more accurate balance in net fixed assets. A similar situation arose for amortization expense.

Other administrative expenses were calculated based on the percentage sales approach as outlined in greater detail in the section above. However, if expenses had remained constant for two or more years, the value was carried forward as the projected value (except when dealing with taxes). Commissions & Royalties/Fees were also zeroed out for Starlight as we determined this line item could be eliminated due to the consolidation. In other words, commission's costs will be reduced due to a reduction in workforce (specifically relating to the sales department).

Interest expense was also zeroed at the firm level as the target’s debt was not to be assumed. However, in the consolidated income statement is based on a 7.75% rate applied to both the new long-term debt and the revolving line of credit (explained in more detail in the *Conclusions/Recommendations* section).

Taxes were calculated based on a corporate tax rate of 40%. As information regarding carryforwards was not provided, it was disregarded.

## Projected Balance Sheets

Assets were determined on varying bases on the balance sheet and were projected to increase from $33,355,212 to $55,436,953 by 2018.

Cash was zeroed out for Starlight Inc. as it was expected to be paid out as a dividend to existing shareholders. In the consolidated statements, cash was set as the necessary amount needed to support projected sales after other assets were projected (*see Exhibits IV-VI*).

The balances in accounts receivable were projected based on the historical average collection period of 43 days for Collections and 58 days for Starlight (*see Table 1*) based on total sales. A similar approach was taken in calculating the inventory levels for both firms. The values were based on inventory turnover ratios of 6.54 for Collectibles and 2.37 for Starlight Inc. (*see Table 2*) and them summed at the consolidated level. As the consolidated firm becomes more stable, we anticipate the average collection period to drop and the turnover ratio to increase by year 2020.

As no further capital expenditures will be required and we stopped depreciating fixed assets due to previous accounting errors, net fixed asset balance are expected to remain constant in the foreseeable future.

Accounts payable are once more calculated based on the percentage of sales method. Since they are to be assumed by the buyer they are included in the consolidated balance sheet.

Unlike accounts payable, Accrued Expenses on the consolidated balance sheet includes only the buyer’s portion of the expenses as this liability will not be assumed. Accrued Income/Other Tax include both firms and have been maintained constant as these figures are not expected to fluctuate.

Due to the merger, financing will be restructured using 60% debt (consisting of both long-term debt and a revolving credit line) and 40% equity; see the *Financing Alternatives* section for a breakdown of the financing structure and the balances. Once again, the balances of liabilities and stockholder’s equity reflect the buyer’s prior balances as well as the amounts necessary to finance the asset requirements of the firm as a whole.

For the first few years, the consolidated firm will not be paying out dividends. This is because management plans on building up the equity before dividends begin being paid out (beginning in year 2020 if the firm’s position remains favorable). Due to this, retained earnings will increase exponentially from $3,831,954 to $40,238,853 by 2018.

## Statement of Cash Flows

The statement of cash flows indicated that virtually all cash inflows stem from operations; more specifically from net income and a reduction in current liabilities for years 2014 through 2018 (*see Exhibits VII-IX*). There are no investing activities that occur for any of the years, but the balances in the financing section are primarily due to repayment of long-term debt and preferred stock. Due to these activities, and the lack of dividend payouts, the cash balance increases significantly from $2,721,329 to $16,135,654.

## Financing Alternatives

Our analysts have determined the Net Present Value of the target to be $7,849,026 with a weighted average cost of capital of 14.79% based on the table below:



As has been mentioned throughout the report, the merger is to be financed with 60% debt and 40% equity (provided by venture capitalists). In regards to the debt financing portion it is our recommendation that 75% be financed via long-term debt ($6,140,880) to be paid over a 5 year period and that the remaining 25% ($2,046,960) be financed using the revolving line of credit extended by Eastern Seaboard Bank (both having a 7.75% interest rate); see the table below for a breakdown.



# Conclusions/Recommendations

Based on the analysis provided in previous sections and the valuation of Starlight Inc., it is our recommendation that the merger of the two firms is in Collectible Inc.’s best financial interest. The merger would lead to significant operating efficiencies which would in turn lead to an unprecedented growth in both net income and total assets. By structuring the financing as proposed in the previous section, the newly consolidated firm would meet the Quick Ration and Debt Service Coverage Ratios of at least 1.25 and 1.75 respectively; see table below for projected ratios.



However, although financing the debt portion relying primarily on long term debt provides the desired ratios, our cash balance suffers as a result of having to pay out such large amounts due to loan repayment on an annual basis (for a 5 year period after the acquisition). Nevertheless, this remains the optimal recommendation.

# Exhibits/Tables



