

COVER LETTER CORPORATE DEVELOPMENT ANALYST SYNOPSYS

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Dear Corporate Development Team,

Most engineers that are within the Signal Integrity domain for system on chip or board level designs utilize industry level signal integrity tools, to analyze their designs for insertion loss, to analyze crosstalk generated by parasitic capacitance and inductance, to optimize power distribution networks and to produce a high yield on manufacturing. These optimized technical features combined with the ability, to meet high speed functionality, to maximize revenue, to be the first to market and to manufacture at low COGs is the strategic goal of research and development departments.

With that said, let me go through a high level merger analysis based on a marketing project that I wrote in 2013 for Synopsys. This custom idea was to incorporate the Ansys design toolkits within Synopsys and hence remove overlapping products, markets and customers. The operational, financial and market synergies would justify the investment and the combined product portfolio would enable customers especially architects to transition seamlessly through the product portfolio. The details of the market research project is not provided, this can be made available upon an on-site interview. I can go through a custom NPV analysis based on custom spreadsheets within the cover letter to provide an executive level summary of the synergies, sort of a back of a napkin quick analysis, assuming a sales growth ratio of 12% with a long term growth ratio of 4.5% and a beta value of approximately 0.9 with generic treasury bond yield values for long term and short term debt a custom DCF analysis values the current market value of the firm to be \$12.892 billion with 150.47 million outstanding shares with a value of \$85.68 price of share, this would be end of the year for 2017, with a stock price ending at \$85.24. The standalone entity valuation for Ansys with a long term growth rate of 7%, beta value of 0.9 and projected sales growth ratio of 15% to be approximately \$13.851 billion with a stock price value of \$131.02 at the end of the year. Analyst predictions for next year sales are higher than 15% hence the current market price of the stock is \$186.54.

The estimated valuation of the combined firm is \$55,293 with an NPV of tax shields equating to \$9,084. The capital structure of the combined firm would be optimized with a 23% ratio of debt to equity. With operational synergies of \$5459 and marketing synergies of \$8177, the valuation including synergies would equate to a stock price of \$269.06. The financial synergy would be more stable cash flows and lower beta value. Due to the high growth product portfolio of Ansys, the long term growth rate of the combined firm would be higher than Synopsys standalone. Knowledge on the industry would be very helpful in understanding the details on why these are the synergy values and what further optimizations are possible. Alternative scenarios besides acquiring debt to raise capital to finance the merger would also be areas of further optimization for this analysis.

I look forward to hearing back from you. I will be applying to applications and software engineering within Synopsys, where my technical skill set can be applied.

Regards
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