



CASE STUDY

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Introduction

In recent years, athletic shoe manufactures have incorporated advanced technologies in their new products to gain competitive edge. New Balance was preparing to penetrate into this highly competitive market which was pioneered by the major athletic shoe manufactures such as Nike, Reebok, and Ewing.

This report analyzed the profitability of New Balance's two feasible projects to determine the most financially promising decision. The two projects are called "*Sneaker 2013*" and "*Persistence*". Each project was analyzed based on projected cash flow budget by assessing net present values (NPV), equivalent annual return, internal rate of return (IRR), payback period, and risk & sensitivity analysis.

Background

New Balance Company

New Balance (NB) has been in operation for over 100 years and claimed to have "worked to move the world around us" for those years (New Balance, 2018). NB is one of the best well-known athletic footwear manufacturers in the world. NB's products hold positive reputation in numerous sport fields, such as tennis, basketball, and cricket. Recently, NB investigated hiking segment of the sporting goods market for more opportunities. In addition, NB has been pursuing endorsements from world-renowned athletes and large sports events (e.g., the Olympics) to increase sales revenue and to maintain its presence in the competition. Manufactures expect dramatic increase in sales by associating successful athletes with their products, thus major sports events such as the Olympics, are ideal opportunities to advertise the and/or seek out new talents to represent the brand. NB found a great opportunity in the 2012 Olympics to expand into the youth segment of the market which had been under-served. This opportunity is the "*Sneaker 2013 project*."

Sneaker 2013

After the 2012 Olympics, New Balance saw a great opportunity in the 12 to 18-year-old market, a segment that New Balance found was under-served by their competitors. The company did not possess the adequate amount of cash or the product that could serve the market, but with an effective marketing campaign the product could have had a great potential. We should have the opportunity to obtain endorsement from a promising athlete, Kirani James, who just won the gold medal in track at the 2012 London Olympics. Monte Holliday, the VP of product development, proposed a new item to Ms. Michelle Rodriguez. The project to manufacture this new item was expected to have a lifetime of 6 years. The whole sale price of the Sneaker 2013 was \$115 and suggested retail price was \$190 yielding 40% in gross margin. Assuming we successfully obtain Kirani's endorsement and a few others which we already secured, we can expect approximately 9.3 million pairs in total sales.

Persistence

Hiking shoe was another segment of the footwear market with considerable potential profitability. This was one of the fastest growing sectors and expected to grow steadily at the rate of 15% per year. We expect our market share to reach 15% in the first year, 18% in the second year, and 20% in the third year. The project to introduce NB's very first hiking shoe, "Persistence" was developed which targeted 25 to 40 years old male and female. Due to the rapid development of technologies incorporated in hiking shoes, we expect the project to last only three years. The whole sale price of this shoe was \$90.

The Footwear Industry

Even though the economy in the recent years were less than desirable, the industry continued to grow steadily turning into an unexpected, spectacular road ahead for the footwear companies. The

global athletic footwear market totaled a spectacular \$74.5 billion and was expected to grow at the rate of 1.8% through 2018, reaching the value of \$84.4 billion.

Methodology

For Ms. Rodriguez to present a report on Monday morning to Senior VP of product development, Monte Holliday, she will need to analyze the capital budget statements. Specifically, looking at the NPV, equivalent annual return, IRR, and payback periods. Furthermore, @RISK analysis on sensitivity will be conducted in order to measure the sensitivity of expected sales to a price change.

When comparing the two projects, Ms. Rodriguez should consider the two investment opportunities as being mutually exclusive. Even though both projects will require independent factories and equipment, and their production lines would not affect each other, both investments will require management to raise capital. This might cause a budgeting problem for the company, thus when comparing the two opportunities, Ms. Rodriguez should only pick one of them for a final decision.

Net Present Value (NPV) and Equivalent Annual Return

Using the data from capital budget, the NPV, equivalent annual return, IRR, and payback period can be calculated. NPV recognizes the magnitude, risk, and timing of cash flows. A project should be considered profitable if the NPV is greater than zero because this entails the project has a positive return. However, NPV is not a reliable measure when the discount rate and/or the project lifetime differed between two or more projects being compared. Therefore, we also need to calculate the equivalent annual return from the investments of the project based on the NPV values. NPV calculation and equivalent annual returns comparison will follow the steps below:

1. Calculate the cash flow of each year

2. Determine the NPV of total cash flows by using formula:

$$\text{NPV} = \text{Total present value of future cash flows} + \text{Initial investment in year 0}$$

In Excel, use the NPV function, $\text{=NPV}(\text{rate}, \text{value1}, [\text{value 2}], \dots) + \text{year 0 investment}$

3. Consider the project if NPV is greater than zero. If less than zero, then we can disregard this project without comparing with another project. Proceed to step 4 if both projects have positive NPV.
4. Calculate the equivalent annual return using payment formula:

$$\text{PMT} = (\text{NPV} * \text{discount rate}) / \{1 - (1 + \text{discount rate})^{-n}\}$$

In Excel, use the PMT function, $\text{=PMT}(\text{rate}, \text{nper}, \text{pv}, [\text{fv}], [\text{type}])$

5. The value of PMT calculated will be the equivalent annual return. This number can then be compared with other projects. Accept the project with higher equivalent annual return.

Internal Rate of Return (IRR)

IRR is the discount rate when the NPV is set to zero. Since this is an investment project, we will say that the project is profitable if the IRR is greater than the discount rate. In our case, we will consider Sneaker 2013 project profitable if the IRR is greater than 11% and consider Persistence project profitable if the IRR is greater than 14%. IRR comparison is not valid when the discount rates of the compared projects are different. While this limitation can be overcome by calculating modified IRR(MIRR), MIRR is not applicable to projects with different life expectancies. Hence, IRR calculated will only be used to justify individually on whether the project should be considered. IRR is calculated via method below:

$$1. \text{ NPV} = 0 = \text{year0 cash flow} + \{\text{year1 cash flow} / (1 + \text{IRR})\} + \{\text{year 2 cash flow} / (1 + \text{IRR})^2 + \{\dots\}$$

In Excel, use IRR function =IRR(values, [guess])

Payback Period

Payback period is a measure of how long it will take for the project's cash flows to recover its initial investment. Limitations of payback period calculation are:

- Disregard timing of cash flow
- Disregard cash flows after the payback period
- Long-term projects may not appear to be favorable in comparison to short-term projects
- Different acceptance range needs to be used for projects with different lifetimes
- Project that fits the range may not have positive NPV

The acceptance range of payback period is to be determined by the upper management. Current case study lacks payback period, thus our team will use our best judgement, with justifications, to present our recommendation. Note, we did not use the discounted payback period because we would essentially be calculating the NPV.

@RISK Risk and Sensitivity Analysis

@RISK is an Excel plug-in tool that performs Monte Carlo simulation to help model and forecast performance of different projects. Monte Carlo simulation is also known as probability simulation that models different outcomes when input variables change. We use @RISK to model Sneaker 2013 and Persistence projects due to the uncertainties we have about the market and our target customer's sensitivity to price change. By setting sale price as the input variable, @RISK will

simulate different outcomes, thus, helping us to determine what is the “most likely” outcome for each project.

The distribution chosen for the simulations is Program Evaluation and Review Technique (PERT) distribution. This is the smoothed version of a triangular distribution. PERT distribution will allow us to insert our team’s best guess for minimum sale price, maximum sale price, and most-likely sale price for the shoes. This will help us to model out most desired outcome. However, the result of PERT must be considered carefully because it tends to be unrealistic as the price figures are determined solely by our team.

Based on PERT distribution, we will also present a tornado graph to show the outcomes of the simulations. We are interested in visualizing the sensitivity of profit/loss to different sale price. Hence, we decided to use Tornado graph. Another reason to use Tornado graph is because our model is based on a linear distribution. Our analysis assumes that our profit/loss is dependent on sale price. Tornado graph will show us the profit/loss of the projects when sale price is changed by one standard deviation.

To conduct all the analysis mentioned above, we will create projected income statement and projected cash flow statement for each of the projects based on the information we have at hand. In each statement we will present the calculated operating cash flow (OCF) and the net cash flow of the investment. They differ due to the way they are calculated.

- OCF is different from net income because it adds back depreciation expense since it is not a cash flow.

$$\text{OCF} = \text{Earnings Before Interest and Taxes} + \text{Depreciation} - \text{Tax Expense}$$

$$\text{Net OCF} = \text{Sum of each year's OCF}$$

- Net cash flow of investment takes into account of all cash flows including working capital, recovering working capital, opportunity costs, cannibalism, synergy and tax. However, interest expense is ignored because in cash budgeting we assume all working capital are financed through equity financing not debt. In addition, sunk costs are ignored.

Sneaker 2013

The research and development occurred for Sneaker 2013 are considered a sunk cost, in result, we omit the sunk cost in the cash flow. However, some items that will be included in the budgeted statement are the initial investment in the project, such as the cost of building the factory, and purchase of the equipment and installation of it. In **Figure 1** in the appendix, we can see that along with the cost of equipment, we included the cost of cannibalization of the other sneaker sales, taxes and the costs to sell the Sneaker 2013, advertising and promotion of Sneaker 2013, and changes in working capital.

Cash Flow Statement

In order to start the project, the initial investment outlay in 2012 sums up to \$160 million. This investment will lead to operating cash flows as seen in **Table 1**. The annual net operating cash flows are as follows: \$20.5 in 2013, \$41.32 in 2014, \$36.89 in 2015, \$54.66 in 2016, \$39.43 in 2017 and \$16.91 in 2018 (all in millions).

Table 1. Sneaker 2013 Operating Yearly Operating Cash Flow and Net Cash Flow

Year	2012	2013	2014	2015	2016	2017	2018
Net OCF (millions)*	-	\$20.50	\$41.32	\$36.89	\$54.66	\$39.43	\$16.91
Net CF (millions)**	\$(160.00)	\$(14.63)	\$40.32	\$36.89	\$54.66	\$39.43	\$110.84

*OCF = Earnings Before Interest and Taxes + Depreciation – Tax Expense

Sample calculation for year 2013, \$millions:

*Earnings before taxes = \$19,0; Depreciation = 7.90; Tax Expense = 40% * Earnings before taxes*

*19,0 + 7.90 – (40%*19) = \$20,5 = OCF of 2013*

Net Operating Cash Flow = Sum of each year's OCF

***NCF = OCF + Taxes + PP&E Investment + Salvage Value + Working Capital + Working Capital Recovered*

Sneaker 2013 ending year non-operating net cash flow can be found out by adding the factory and equipment depreciation expenses using **Figure 1** in the appendix, which will result in a non-operating cash flow of \$7.2 million for the whole project. However, this amount is included in the calculation for income after tax, which is our net income, so we add back depreciation to net income to get the OCF.

Table 2. Sneaker 2013 Payback period calculations

Year	Cash Flow	Balance
0	\$ (160,000,000.00)	\$ (160,000,000.00)
1	\$ (14,633,000.00)	\$ (174,633,000.00)
2	\$ 40,320,000.00	\$ (134,313,000.00)
3	\$ 36,890,000.00	\$ (97,423,000.00)
4	\$ 54,660,000.00	\$ (42,763,000.00)
5	\$ 39,430,000.00	\$ (3,333,000.00)
6	\$ 110,838,000.00	\$ 107,505,000.00
	Payback Period (years)	5.03

The NPV of the project, with 11% discount rate, will be \$ 5,179,925.58. **Table 2** shows the total cash flows for the project and the balance for the respected years. By referencing the table, we can find out the payback period for the Sneaker 2013 project, which is when the balance turns positive. According to **Table 2**, the payback period for the project will be 5.03 years. For the IRR, the same net cash flow of the project can be used to compute the numbers, which will give us an IRR of

11.78%. Since IRR is greater than 11% discount rate, we can consider accepting the project. The equivalent annual return of Sneaker is calculated from NPV, and it is \$1,224,413.01.

Persistence

As performed in Sneaker 2013's budget, when building the cash flow statement, interest expenses, and depreciation should not be included in the statement for Persistence. Furthermore, we do not need to include factory cost in the statement since the project will be using a part of a facility that is already the property of the company. However, all other cost will be considered in the cash flow statement as seen in **Figure 2** in the appendix.

Cash Flow Statement

In order to start the Persistence project, the initial investment outlay including the opportunity cost for year 0 will sum up to \$9.8 million. This initial investment will lead to the following net cash flows per year as shown in Table 3, row 2:

Table 3. Persistence Yearly Operating Cash Flow and Net Cash Flow

Year	2012	2013	2014	2015
Net OCF	\$(8,000,000.00)	\$15,190,018.00	\$23,604,400.00	\$29,954,325.92
Net CF	\$5,200,000.00	\$13,390,018.00	\$21,804,400.00	\$13,154,325.92

In order to find the NPV, equivalent annual return, payback period, and IRR for Persistence, we need to separate the yearly cash flows and calculate the balances for each year as seen in **Table 4**. Because Persistence project will have an initial raise in working capital of \$15 million through equity financing, the cash inflow will be higher than the outflow. Thus, the total cost of the initial investment will be covered by the initial raise in capital during year 0. Although the working

capital financed in year 0 needs to be recovered in year 3, the cash inflow from operations is greater than the sum of recovery and opportunity cost. Hence, year 3 is also a positive cash inflow. Therefore, Persistence has positive cash flow every year.

Table 4. Persistence Payback Period Calculations

Year	Cash Flow	Balance	CF Positive/Negative?
0	\$ 5,200,000.00	\$ 5,200,000.00	+
1	\$ 13,390,018.00	\$ 18,590,018.00	+
2	\$ 21,804,400.00	\$ 40,394,418.00	+
3	\$ 13,154,325.92	\$ 53,548,743.92	+

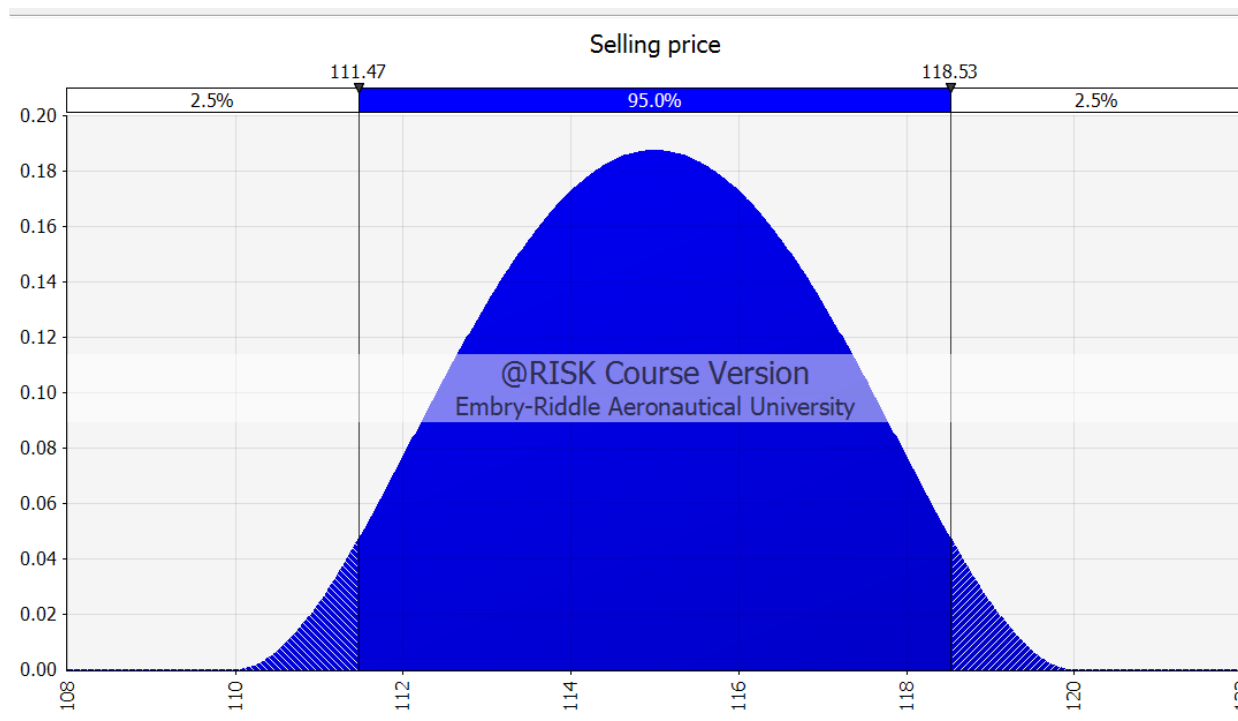
The NPV of the project, using a 14% discount rate, is equal to \$ 42.6 million. Because of the positive inflow of year 0, the project will not have a total cash outflow, thus the payback period for Persistence is 0. Since all the cash flows are positive because of the initial raise in capital, IRR can't be calculated. Equivalent annual return calculated from NPV is \$18,350,109.93.

Risk and Sensitivity Analysis

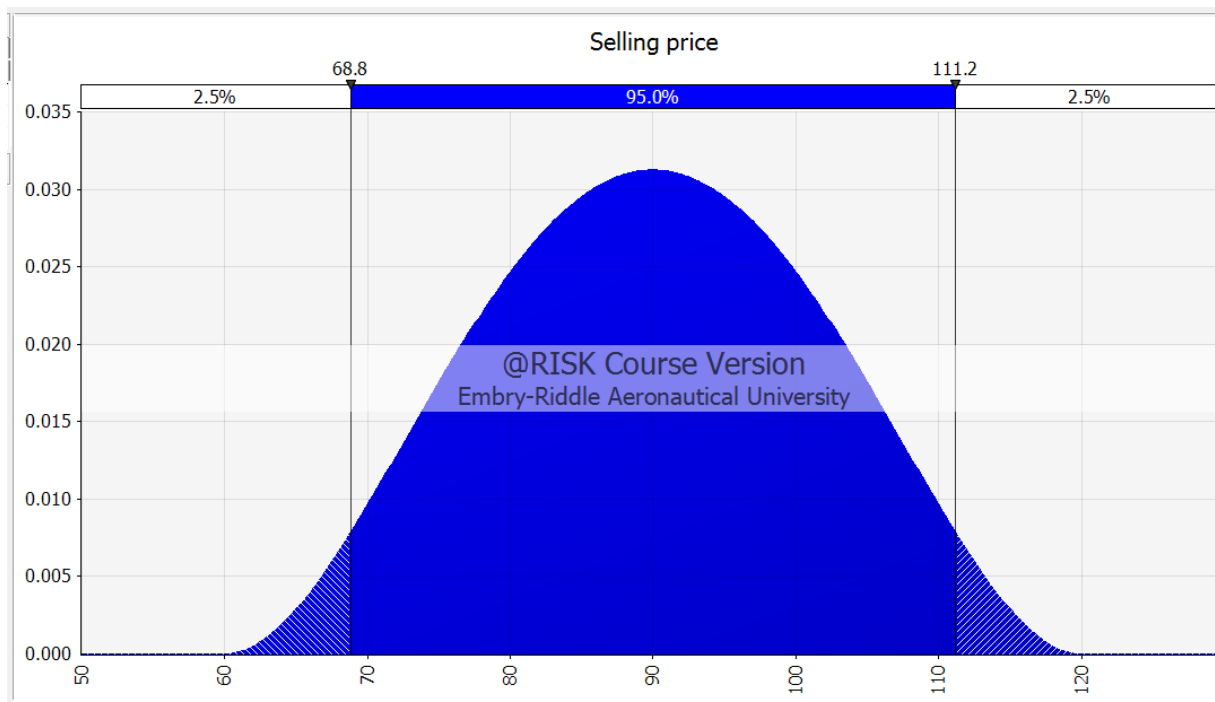
When using @RISK we need to determine the input and output of the model. One of the dependent variables is units sold, which we defined with a function. Our input is the sales price per unit and the output is profit/loss. To simulate the total earnings if the price of the pair of shoes went down or goes up, we have taken out the total cost of manufacturing each of the pair of shoes to find out the lowest price to sell the shoe and have a break even result. The cost of manufacturing the shoe was taken out from total variable costs, total fixed costs and the interest costs, divided by the number of shoes sold. That gave us that for Sneaker 2013 the total manufacturing cost was \$99 and for Persistence \$49, adding to both \$10 of minimum additional profit gain. The maximum

price was calculated from the difference between the lowest price and the actual selling price, in that case for Sneaker 2013 there was a difference of \$5 and for Persistence the difference was \$30. That difference was added to the actual selling price and we obtained the maximum selling price of \$120 for Sneaker 2013 and \$120 for Persistence, the actual selling price for them was \$115 and \$90 respectively.

To find out if the price of Sneaker 2013 drops to the minimum price, where the pair of shoes reaches a price lower than \$111.47 per pair, there will be a 2.5% of sales that can be handled without losing money out of the sales on the product. This correlation is given by the distribution curve shown in the **Graph 1** below. The same graph shows that we can expect a max price of selling the product at \$118.53 with a 2.5% of total sells going beyond this price. With the data calculated, New Balance will not reach a max of more than \$120 per sale on the Sneaker 2013.

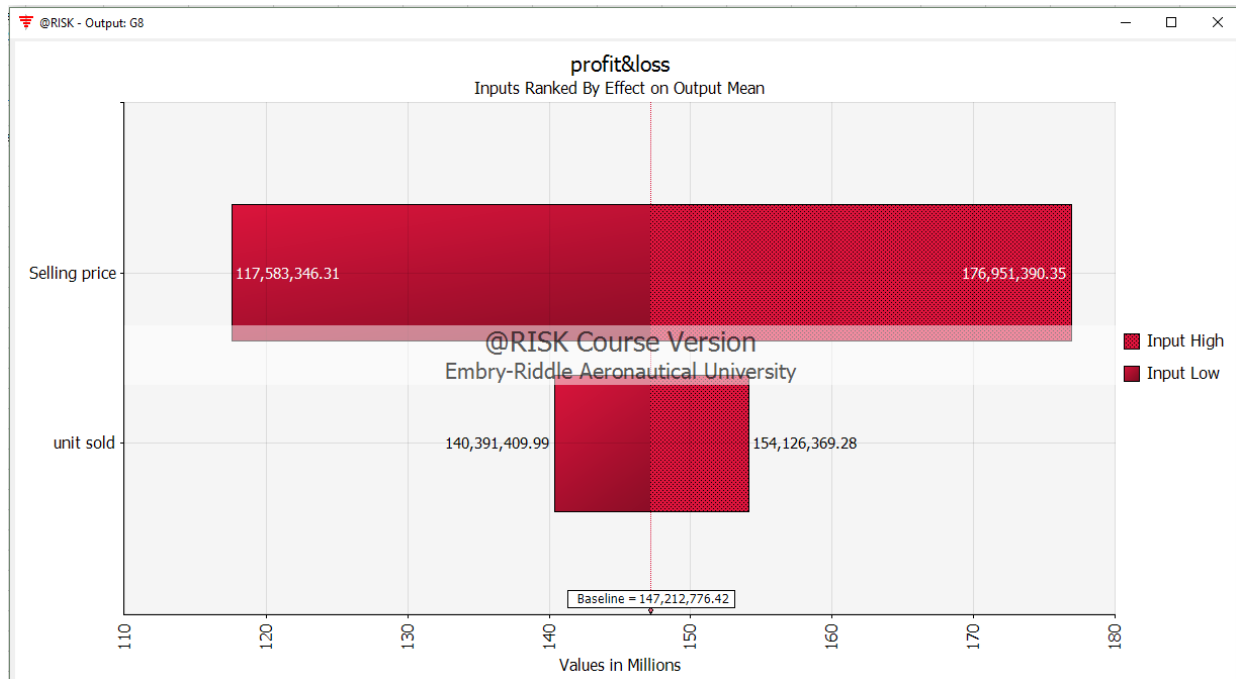


According to the Persistence shoe selling variation seen in **Graph 2**, the range of prices is larger, where the shoe can be sold at \$111 or at \$68. The probability to sell the shoe under the cost of manufacturing the shoe is of 2.5%, which entails that the shoe is selling below \$68. As opposed to the Sneaker shoe, the Persistence is a type of shoe in the market that can be sold below the \$100 barrier and can attract different customers.



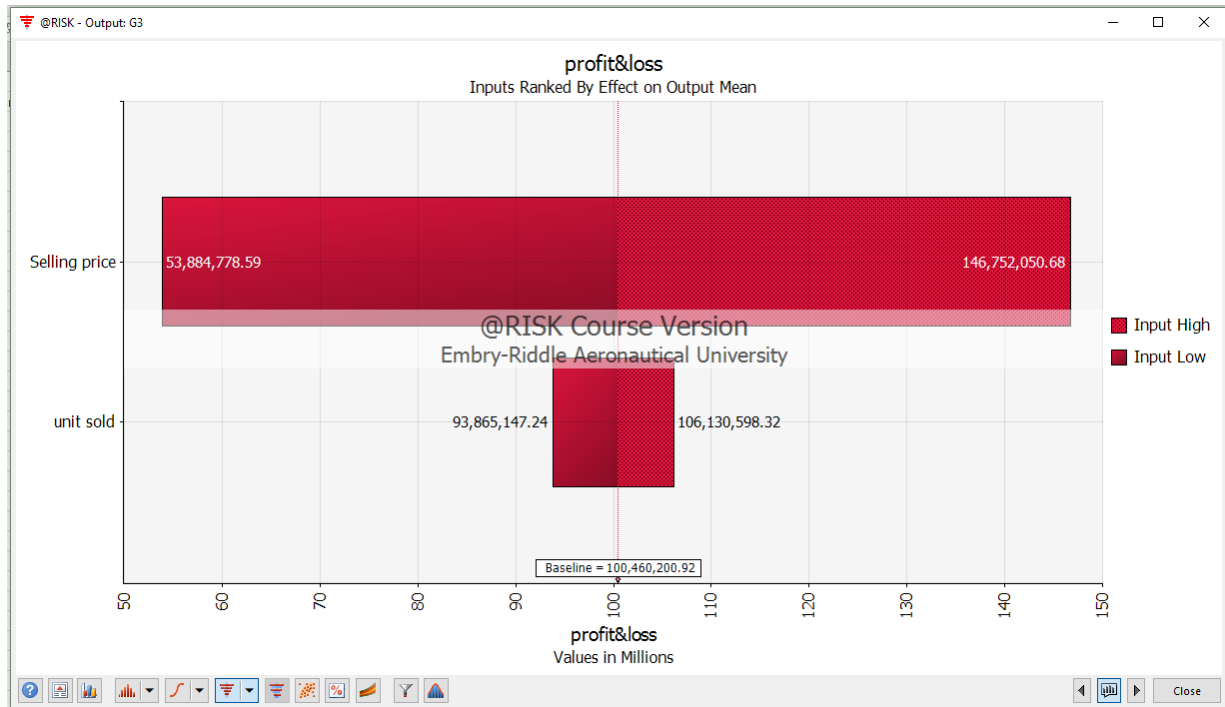
Graph 2 - Persistence Distribution Curve

Evaluating the different variants that we can have if we manipulate the sale of the Sneaker 2013 and considering the lower price, we show in Graph 1, our sells will decrease to \$117.6 million. With this price, we will still cover the costs that involve manufacturing the Sneaker 2013. The same goes at the time of increasing the selling price of the shoe, as shown in **Graph 3**. We have two variants in this tornado graph; the number of units sold and the Selling price of the shoe. The cost of manufacturing the shoe will always be the same, so the variant was not taken into consideration.



Graph 3 - Sneaker 2013 Tornado Graph

As for the Persistence prototype that we evaluate, if we sell Sneaker 2013 at the lower price possible to cover the manufacturing cost of \$68, our sales come to be \$53.80 during the whole time period of the project. Shown in **Graph 4**, the variations in number of units sold is much lower than the variation of the amount of money earned in revenue. Taken into consideration the differences of prices between the lowest price and the highest price per pair is much higher when compared to the Sneaker 2013 prototype.



Graph 4 - Persistence Tornado Graph

Taking the results from @RISK we had the following Total Net Income for both projects, Sneaker 2013 and Persistence.

Table 5. Parameters and results set for @RISK model for Sneaker 2013

Sneaker 2013	Minimum	Most-Likely	Maximum
Sales Price (input in @RISK)	110	115	120
Numbers of units sold (output of @RISK)	9,957,000	9,300,000	8,643,000
Total Net Income of the project (aka. accounting earnings)	\$ 492,871,500	\$ 481,275,000	\$ 466,722,000

Table 6. Parameters and results set for @RISK model for Persistence

Persistence	Minimum	Most-Likely	Maximum
Sales Price (input in @RISK)	60	90	120
Numbers of units sold (output of @RISK)	2,658,641	2,416,946	2,172,252
Total Net Income of the project (aka. accounting earnings)	\$ 71,783,307	\$ 97,886,313	\$ 117,301,608

According to the analysis done with @Risk, our Minimum Total Net Income for Sneaker 2013 will be \$492,871,500 considering that we will be selling around 9,957,000 pair of shoes at \$110 dollars. If we raise the price to \$120 dollars per pair, our sales will be dropping to 8,643,000 pair of shoes and we will be having a Total Net Income of \$466,722,000.

For Persistence, our Minimum Total Net Income will be \$71,783,307, considering that we will be selling around 2,658,641 shoes at \$60 dollars. If we raise the price to \$120 dollars per pair, our sales will be dropping to 2,172,252 pair of shoes and we will be having a Total Net Income of \$117,301,608.

Conclusion

NPV comparison resulted in the following; \$5,179,925.58 for “Sneaker 2013” and \$42,602,202.91 for “Persistence”. However, this is not a reliable measure because the two projects differed in lengths of time, one lasts three years longer than the other. IRR comparison was not conclusive because “Persistence” had no net cash out flow throughout the entire project length. Furthermore, Payback period analysis was not conductible due to the lack of predetermined schedule to recover the initial investment, in addition to the difference in projects

time lengths. Moreover, we determined that @RISK analysis had no practical application in our decision making because the simulated scenarios were based on the most favorable parameters which our team decided using our best judgement. However, it does give us an overview of what can happen if we proceed with either of the projects. Equivalent annual return comparison resulted in \$1,224,413.01 for “*Sneaker 2013*” and \$18,350,109.93 for “*Persistence*”.

“*Persistence*” is expected to be significantly more cost effective, therefore, we strongly recommend to persistently pursue project “*Persistence*”.

References

Harvard Business. (2018). Sneaker 2013. Retrieved from <https://hbr.org/product/sneaker-2013/BAB166-PDF-ENG>

New Balance. (2018). Company Overview. Retrieved from <https://www.newbalance.com/about-new-balance-content-assets/inside-nb-overview.html>

Appendix

Figure 1. Capital Budget for Sneaker 2013

SNEAKER 2013 PRO FORMA INCOME STATEMENT							
Account Name	Year End of 2012 Year 0	2013 1	2014 2	2015 3	2016 4	2017 5	2018 6
Revenue per pair	0	\$ 115.00	\$ 115.00	\$ 115.00	\$ 115.00	\$ 115.00	\$ 115.00
Estimated sales Volume (pairs) (millions)	0	1200000	1600000	1400000	2400000	1800000	900000
Sales Revenue	\$ -	\$ 138,000,000.00	\$ 184,000,000.00	\$ 161,000,000.00	\$ 276,000,000.00	\$ 207,000,000.00	\$ 103,500,000.00
Variable Costs (55% of Revenues)	\$ -	\$ 75,900,000.00	\$ 101,200,000.00	\$ 88,550,000.00	\$ 151,800,000.00	\$ 113,850,000.00	\$ 56,925,000.00
Gross Profit	\$ -	\$ 62,100,000.00	\$ 82,800,000.00	\$ 72,450,000.00	\$ 124,200,000.00	\$ 93,150,000.00	\$ 46,575,000.00
Operating Expenses:							
Factory Outlay	\$ 150,000,000.00						
MACRS Rates For Factory		2.60%	5.00%	4.70%	4.50%	4.30%	4.00%
Factory Depreciation	\$ -	\$ 3,900,000.00	\$ 7,500,000.00	\$ 7,050,000.00	\$ 6,750,000.00	\$ 6,450,000.00	\$ 6,000,000.00
Accumulated Depreciation of Factory	\$ -	\$ 3,900,000.00	\$ 11,400,000.00	\$ 18,450,000.00	\$ 25,200,000.00	\$ 31,650,000.00	\$ 37,650,000.00
Adjusted Depreciation of Factory*	\$ -	\$ 146,100,000.00	\$ 138,600,000.00	\$ 131,550,000.00	\$ 124,800,000.00	\$ 118,350,000.00	\$ 112,350,000.00
Factory Salvage Value**							\$ 102,000,000.00
Equipment Cost	\$ 15,000,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Freight & Installation	\$ 5,000,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Equipment Cost	\$ 20,000,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
MACRS Rates For Equipment		20%	32%	19%	12%	11%	6%
Depreciation of Equipment		\$ 4,000,000.00	\$ 6,400,000.00	\$ 3,800,000.00	\$ 2,400,000.00	\$ 2,200,000.00	\$ 1,200,000.00
Accumulated Depreciation of Equipment***		\$ 4,000,000.00	\$ 10,400,000.00	\$ 14,200,000.00	\$ 16,600,000.00	\$ 18,800,000.00	\$ 20,000,000.00
Adjusted Depreciation of Equipment		\$ 16,000,000.00	\$ 9,600,000.00	\$ 5,800,000.00	\$ 3,400,000.00	\$ 1,200,000.00	\$ -
Equipment Salvage Value							\$ 3,000,000.00
Endorsement Fees to Kirani James		\$ 2,000,000.00	\$ 2,000,000.00	\$ 2,000,000.00	\$ 2,000,000.00	\$ 2,000,000.00	\$ 2,000,000.00
Olympic Bonus in 2016		\$ -			\$ 1,000,000.00		
SG&A Expenses Per Year		\$ 7,000,000.00	\$ 7,000,000.00	\$ 7,000,000.00	\$ 7,000,000.00	\$ 7,000,000.00	\$ 7,000,000.00
A&P Expenses per Year		\$ 25,000,000.00	\$ 15,000,000.00	\$ 10,000,000.00	\$ 30,000,000.00	\$ 25,000,000.00	\$ 15,000,000.00
Total Operating Expenses	\$ 160,000,000.00	\$ 41,900,000.00	\$ 37,900,000.00	\$ 29,850,000.00	\$ 49,150,000.00	\$ 42,650,000.00	\$ 31,200,000.00
Operation Profit (EBIT)	\$ -	\$ 20,200,000.00	\$ 44,900,000.00	\$ 42,600,000.00	\$ 75,050,000.00	\$ 50,500,000.00	\$ 15,375,000.00
Interest Expense	\$ -	\$ 1,200,000.00	\$ 1,200,000.00	\$ 1,200,000.00	\$ 1,200,000.00	\$ 1,200,000.00	\$ 1,200,000.00
Pre-Tax Income (EBT)	\$ -	\$ 19,000,000.00	\$ 43,700,000.00	\$ 41,400,000.00	\$ 73,850,000.00	\$ 49,300,000.00	\$ 14,175,000.00
Tax expense at 40%	\$ -	\$ 7,600,000.00	\$ 17,480,000.00	\$ 16,560,000.00	\$ 29,540,000.00	\$ 19,720,000.00	\$ 5,670,000.00
Net Income (Income After Tax)	\$ -	\$ 11,400,000.00	\$ 26,220,000.00	\$ 24,840,000.00	\$ 44,310,000.00	\$ 29,580,000.00	\$ 8,505,000.00
Depreciation							
Depreciation of Factory		\$ 3,900,000.00	\$ 7,500,000.00	\$ 7,050,000.00	\$ 6,750,000.00	\$ 6,450,000.00	\$ 6,000,000.00
Depreciation of Equipment		\$ 4,000,000.00	\$ 6,400,000.00	\$ 3,800,000.00	\$ 2,400,000.00	\$ 2,200,000.00	\$ 1,200,000.00
Total Depreciation Expense		\$ 7,900,000.00	\$ 13,900,000.00	\$ 10,850,000.00	\$ 9,150,000.00	\$ 8,650,000.00	\$ 7,200,000.00
Cash Flow from Operations	\$ -	\$ 20,500,000.00	\$ 41,320,000.00	\$ 36,890,000.00	\$ 54,660,000.00	\$ 39,430,000.00	\$ 16,905,000.00
SNEAKER 2013 WORKING CAPITAL							
Working Capital Requirements:							
Inventory	\$ 15,000,000.00	\$ 18,975,000.00					
Payables	\$ 5,000,000.00	\$ 15,180,000.00					
Receivables	\$ -	\$ 6,072,000.00					
Working Capital Invested	\$ 10,000,000.00	\$ 9,867,000.00					
Incremental Working Capital		\$ 133,000.00					
Working Capital Recovered							\$ (9,867,000.00)
SNEAKER 2013 PROJECTED CASH FLOW							
Account Name	Year End of 2012 Year 0	2013 1	2014 2	2015 3	2016 4	2017 5	2018 6
Sales Revenue		\$ 138,000,000.00	\$ 184,000,000.00	\$ 161,000,000.00	\$ 276,000,000.00	\$ 207,000,000.00	\$ 103,500,000.00
Variable Costs (55% of Revenues)		\$ (75,900,000.00)	\$ (101,200,000.00)	\$ (88,550,000.00)	\$ (151,800,000.00)	\$ (113,850,000.00)	\$ (56,925,000.00)
Operating Expenses(less depreciation)		\$ (34,000,000.00)	\$ (24,000,000.00)	\$ (19,000,000.00)	\$ (40,000,000.00)	\$ (34,000,000.00)	\$ (24,000,000.00)
Income Tax		\$ (7,600,000.00)	\$ (17,480,000.00)	\$ (16,560,000.00)	\$ (29,540,000.00)	\$ (19,720,000.00)	\$ (5,670,000.00)
Cash flow from operations		\$ 20,500,000.00	\$ 41,320,000.00	\$ 36,890,000.00	\$ 54,660,000.00	\$ 39,430,000.00	\$ 16,905,000.00
Factory	\$ (150,000,000.00)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 102,000,000.00
Equipment	\$ (20,000,000.00)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000.00
Taxes paid on sale of factory****		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Taxes paid on sale of equipment		\$ -	\$ -	\$ -	\$ -	\$ -	\$ (1,200,000.00)
Net working capital	\$ 10,000,000.00	\$ (133,000.00)	\$ -	\$ -	\$ -	\$ -	\$ (9,867,000.00)
Lost Sales of other projects (Cannibalism)	\$ -	\$ (35,000,000.00)	\$ (1,000,000.00)	\$ -	\$ -	\$ -	\$ -
Total cash flow of project	\$ (160,000,000.00)	\$ (14,633,000.00)	\$ 40,320,000.00	\$ 36,890,000.00	\$ 54,660,000.00	\$ 39,430,000.00	\$ 110,838,000.00

*If book value is greater than salvage value than no tax is charged on the sale of factory. The opposite is true.

**Salvage value = market value

***The market value (salvage value) is more than the book value so there will be a tax charged on the revenue made, which is tax rate multiplied by the salvage value.

****Factory is recorded in book at salvage value \$112,350,000, but we sell at \$102,000,000. Seems that we made a loss, but we saved tax expense on this sale.

Figure 2. Capital Budget for Persistence

PERSISTENCE PRO FORMA INCOME STATEMENT				
Account Name	Year End of 2012	2013	2014	2015
	Year 0	1	2	3
Revenue per pair		\$ 90.00	\$ 90.00	\$ 90.00
Estimated Sales Volume (pairs)		583334	805000	1028612
Sales Revenue		\$ 52,500,060.00	\$ 72,450,000.00	\$ 92,575,080.00
Variable Costs (38% of Revenues)		\$ 19,950,022.80	\$ 27,531,000.00	\$ 35,178,530.40
Gross Profit		\$ 32,550,037.20	\$ 44,919,000.00	\$ 57,396,549.60
Operating Expenses:				
Equipment Cost	\$ 8,000,000.00	\$ -	\$ -	\$ -
MACRS Rates For Equipment		20%	32%	19%
Depreciation of Equipment	\$ -	\$ 1,600,000.00	\$ 2,560,000.00	\$ 1,520,000.00
Accumulated Depreciation of Equipment	\$ -	\$ 1,600,000.00	\$ 4,160,000.00	\$ 5,680,000.00
Adjusted Depreciation of Equipment	\$ 8,000,000.00	\$ 6,400,000.00	\$ 3,840,000.00	\$ 2,320,000.00
Equipment Salvage Value				\$ 2,320,000.00
SG&A Expenses Per Year		\$ 6,300,007.20	\$ 7,245,000.00	\$ 7,406,006.40
A&P Expenses per Year		\$ 3,000,000.00	\$ 2,000,000.00	\$ 2,000,000.00
Total Operating Expenses	\$ 8,000,000.00	\$ 9,300,007.20	\$ 9,245,000.00	\$ 9,406,006.40
Operation Profit (EBIT)	\$ (8,000,000.00)	\$ 23,250,030.00	\$ 35,674,000.00	\$ 47,990,543.20
Interest Expense	\$ -	\$ 600,000.00	\$ 600,000.00	\$ 600,000.00
Pre-Tax Income (EBT)	\$ (8,000,000.00)	\$ 22,650,030.00	\$ 35,074,000.00	\$ 47,390,543.20
Tax expense at 40%		\$ 9,060,012.00	\$ 14,029,600.00	\$ 18,956,217.28
Net Income (Income After Tax)	\$ (8,000,000.00)	\$ 13,590,018.00	\$ 21,044,400.00	\$ 28,434,325.92
Non-Cash Charges				
Depreciation of Equipment	\$ -	\$ 1,600,000.00	\$ 2,560,000.00	\$ 1,520,000.00
Net Cash Flow (millions)	\$ (8,000,000.00)	\$ 15,190,018.00	\$ 23,604,400.00	\$ 29,954,325.92
PERSISTENCE WORKING CAPITAL				
Working Capital Requirements:				
Inventory & Receivables	\$ 25,000,000.00			
Payables	\$ 10,000,000.00			
Working Capital Invested	\$ 15,000,000.00			
Working Capital Recovered				\$ (15,000,000.00)
PERSISTENCE PROJECTED CASH FLOW				
Account Name	Year End of 2012	2013	2014	2015
	Year 0	1	2	3
Sales Revenue		\$ 52,500,060.00	\$ 72,450,000.00	\$ 92,575,080.00
Variable Costs (38% of Revenues)		\$ (19,950,022.80)	\$ (27,531,000.00)	\$ (35,178,530.40)
Operating Expenses(less depreciation)		\$ (7,700,007.20)	\$ (6,685,000.00)	\$ (7,886,006.40)
Income Tax		\$ (9,060,012.00)	\$ (14,029,600.00)	\$ (18,956,217.28)
Cash flow from operations		\$ 15,190,018.00	\$ 23,604,400.00	\$ 29,954,325.92
Equipment	\$ (8,000,000.00)	\$ -	\$ -	\$ -
Net working capital	\$ 15,000,000.00	\$ -	\$ -	\$ (15,000,000.00)
Factory Outlay (opportunity cost)	\$ (1,800,000.00)	\$ (1,800,000.00)	\$ (1,800,000.00)	\$ (1,800,000.00)
Total cash flow of project	\$ 5,200,000.00	\$ 13,390,018.00	\$ 21,804,400.00	\$ 13,154,325.92

*Estimated sales volumes are

Figure 3. Sneaker 2013 @Risk Discrete Graph

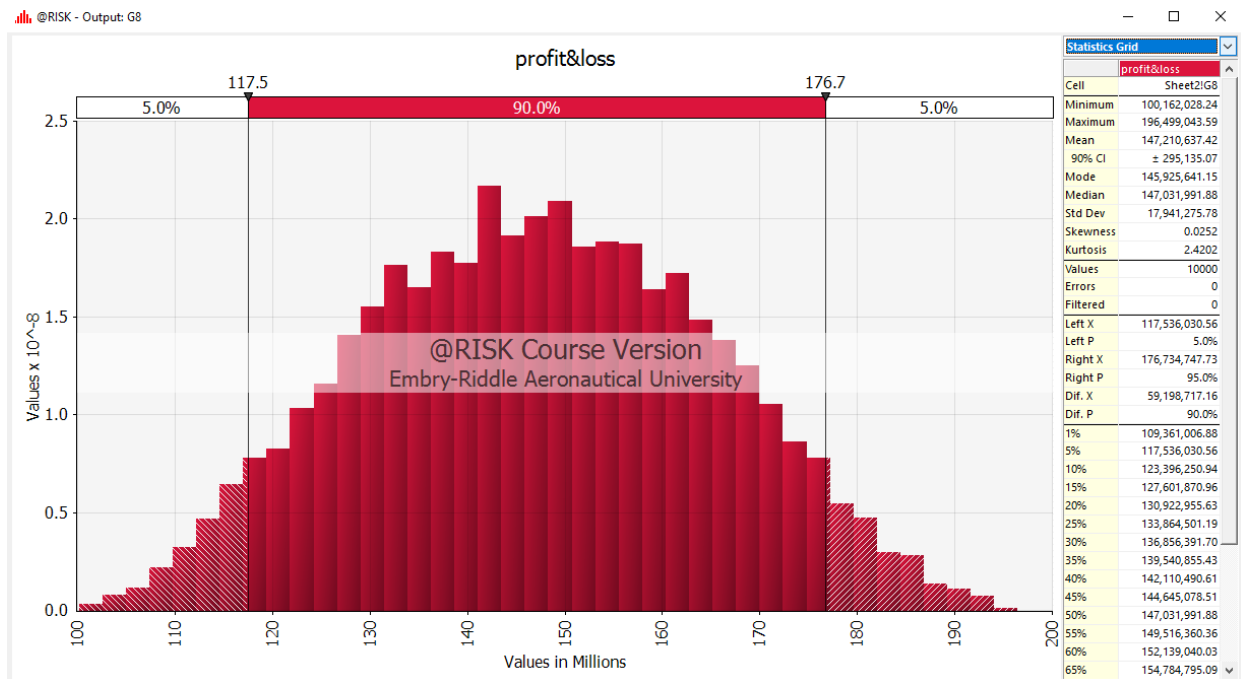


Figure 4. Sneaker 2013 @Risk Excel sheet

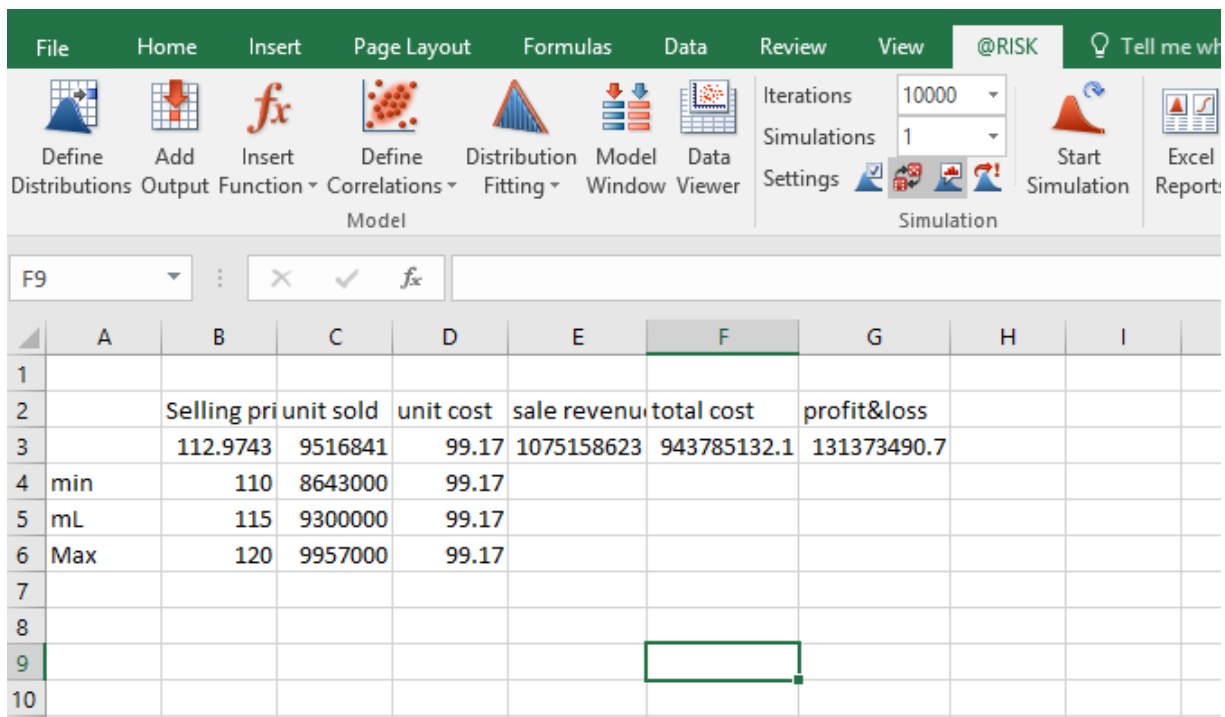


Figure 5. Persistence @Risk Discrete Graph

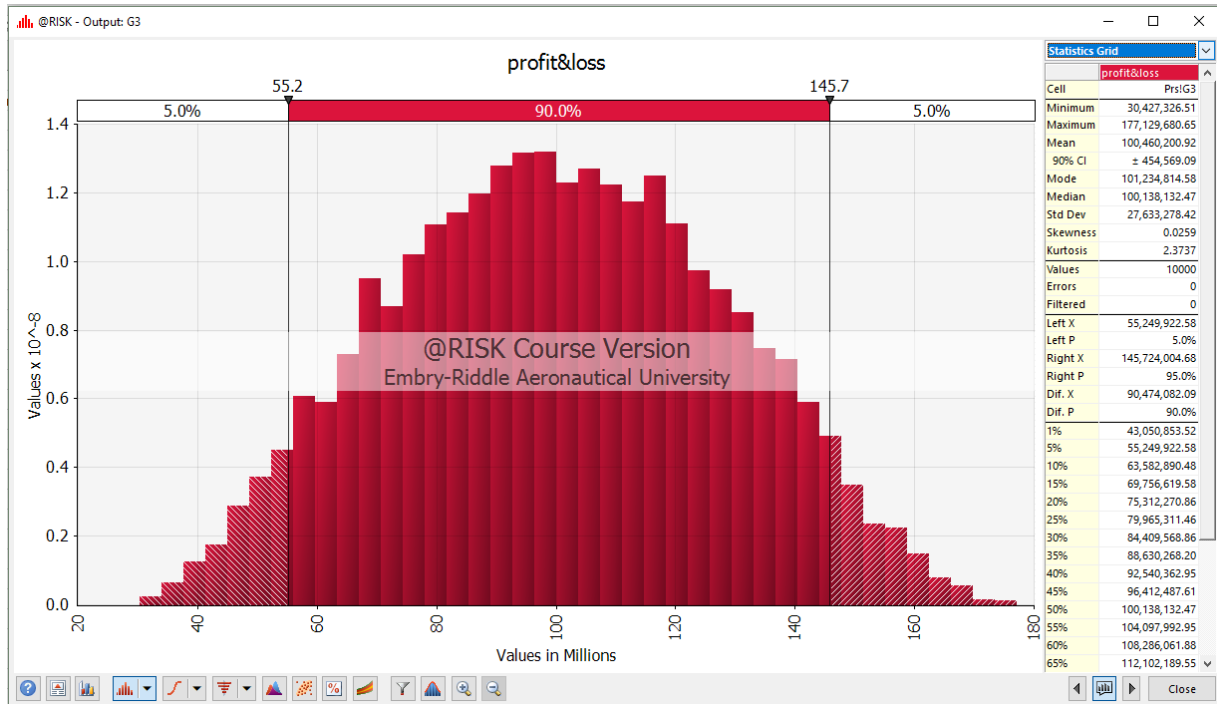


Figure 6. Persistence @Risk Excel sheet

FileHomeInsertPage LayoutFormulasDataReviewView@RISKTell



Define
Distributions



Add
Output



Insert
Function



Define
Correlations



Distribution
Fitting



Model
Window



Data
Viewer

Iterations10000

Simulations1

Settings

Simulation



Start
Simulation

Model

G3 : X ✓ fx =RiskOutput()+E3-F3

	A	B	C	D	E	F	G	H	I
1									
2		Selling price	unit sold	unit cost	sale revenue	total cost	profit&loss		
3		69.80222	2499577	48.43	174476025	121054519.1	53421505.62		
4	min	60	2175252	48.43					
5	mL	90	2416946	48.43					
6	Max	120	2658641	48.43					
7									
8									
9									