VFC DLOM CALCULATOR

DOUBLE PROBABILITY DISCOUNT FOR LACK OF MARKETABILITY
Based on Marketing Period and Price Volatility Probabilities

Appraiser

Marc Vianello CPA, ABV, CFF

8826 Santa Fe Drive, Suite 217
Overland Park, Kansas 66212 US
913-432-1331
vianello@vianello.biz

Valuation Subject

Sample Company
1234 First Street, Suite 100
Kansas City, Missouri 64114
United States

Valuation Date

10 / 05 / 2016

Report Date

10 / 05 / 2016

Probability-Adjusted Discount for Lack of Marketability

8.9%

Summary Results

Discount for Lack of Marketability

	Low Bound	Average	High Bound
Probability Adjusted DLOM	8.4%	8.9%	9.4%
DLOM Price Volatility Mean	4.2%	4.9%	5.1%
DLOM Price Volatility Median	3.0%	3.7%	3.9%
DLOM Price Volatility Mode	1.5%	1.5%	1.6%
DLOM Marketing Period Mean	3.3%	3.3%	3.8%
DLOM Marketing Period Median	2.2%	2.1%	2.7%
DLOM Marketing Period Mode	0.6%	0.5%	0.9%

Marketing Period

	Low Bound	Average	High Bound
Probability Adjusted Marketing Period	209.2	212.1	215.0
Mean	213.2	216.1	219.0
Median	159.4	162.5	165.6
Mode	89.1	91.9	94.8
Standard Deviation	189.3	189.3	189.3
Coefficient of Variation	0.9	0.9	0.9
95th Percentile	1,342.0	1,339.0	1,336.1

Price Volatility

	Low Bound	Average	High Bound
Probability Adjusted Price Volatility	14.0%	14.7%	15.4%
Mean	14.3%	15.0%	15.7%
Median	10.2%	11.0%	11.8%
Mode	5.3%	5.9%	6.6%
Standard Deviation	13.8%	13.8%	13.8%
Coefficient of Variation	1.0	0.9	0.9
95th Percentile	99.6%	98.8%	98.1%

Summary Results

Marketing Period Statistics

Factor Name	Specified Range	Average Days	Standard Deviation in Days	Coefficient of Variation	Standard Error	Transaction Count	95% Confidence Interval	
							Low	High
SIC	5500 to 5599	224.0	177.0	0.79	7.5	551	209.2	238.8
Asking Price	$79,000 to $194,000	203.4	177.9	0.87	2.3	5,924	198.9	207.9
Employees	0 to 50	215.8	189.3	0.88	1.5	16,361	212.9	218.7
Annual Revenue	$0 to $830,000	207.3	181.7	0.88	1.6	12,336	204.1	210.5
Month	Aug, Sept, Oct	219.3	189.5	0.86	2.9	4,218	213.6	225.1
Region	AR, IA, KS, MO, NE, OK	202.4	209.5	1.03	11.4	339	180.1	224.7
Weighted Average of Factors		211.7	185.3	0.88	0.9	39,729	209.9	213.5
Average of Unique Transactions		216.1	189.3	0.88	1.5	16,423	213.2	219.0
Transactions With All Factors		0.0	0.0	0.00	0.0	0	0.0	0.0

Price Volatility Statistics

Ticker	Average	Standard Deviation	Price Volatility Days	Coefficient of Variation	Standard Error	From Date	To Date	95% Confidence Interval	
								Low	High
IBM	15.4%	14.9%	500	1.0	0.7%	2014-10-09	2016-10-04	14.1%	16.7%
T	11.6%	9.8%	500	0.8	0.4%	2014-10-09	2016-10-04	10.8%	12.5%
F	17.9%	16.8%	500	0.9	0.8%	2014-10-09	2016-10-04	16.4%	19.4%
Overall	15.0%	13.8%	1,500	0.9	0.4%	2014-10-09	2016-10-04	14.3%	15.7%

Formula Inputs

Selected Formula   Longstaff
Marketing Period Carrying Cost   Simple
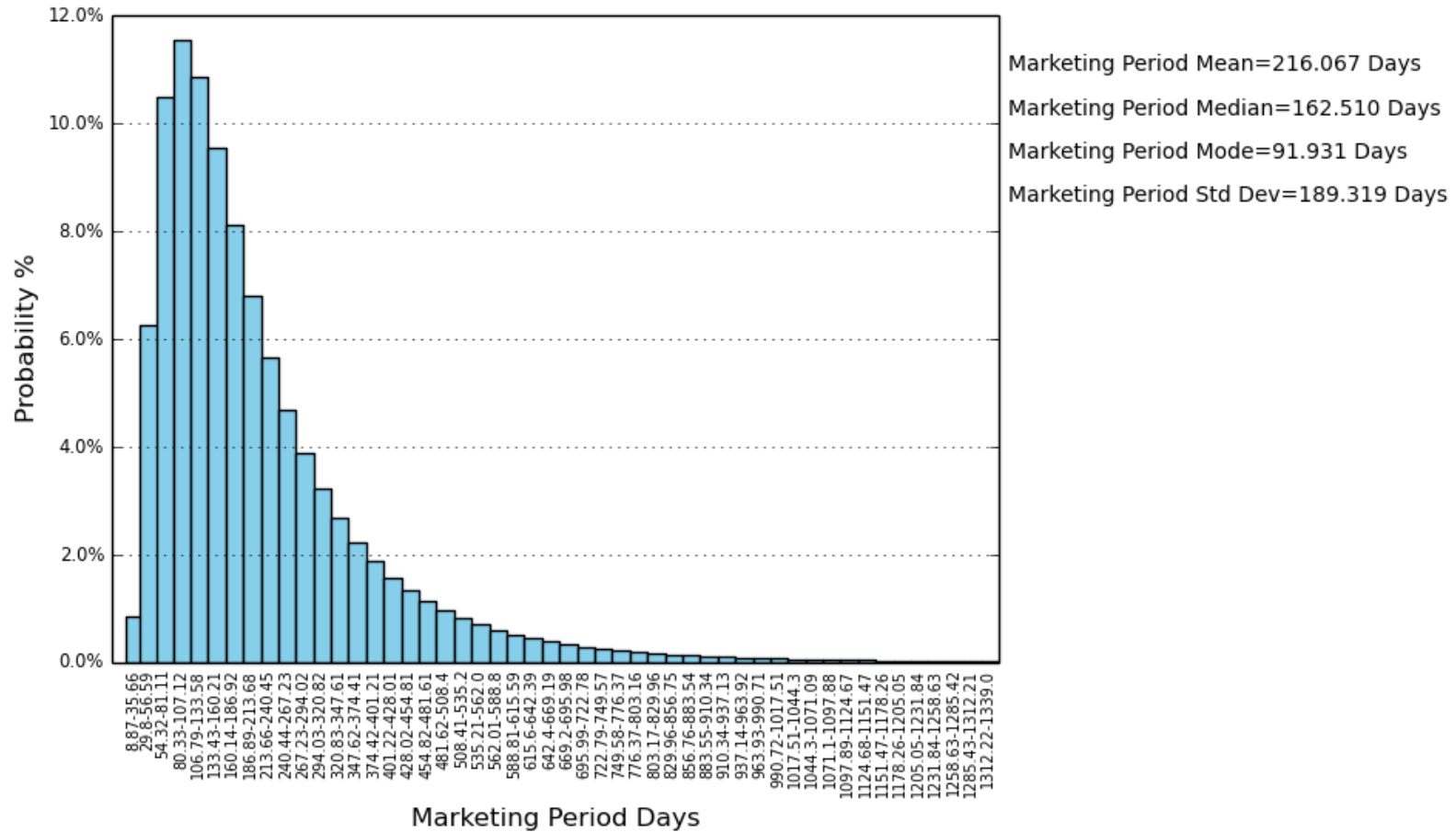
Summary Results

Cost of Money (APR)   0%

Marketing Period Graphs

Probabilities by Marketing Period Intervals

Marketing Period Mean=216.067 Days
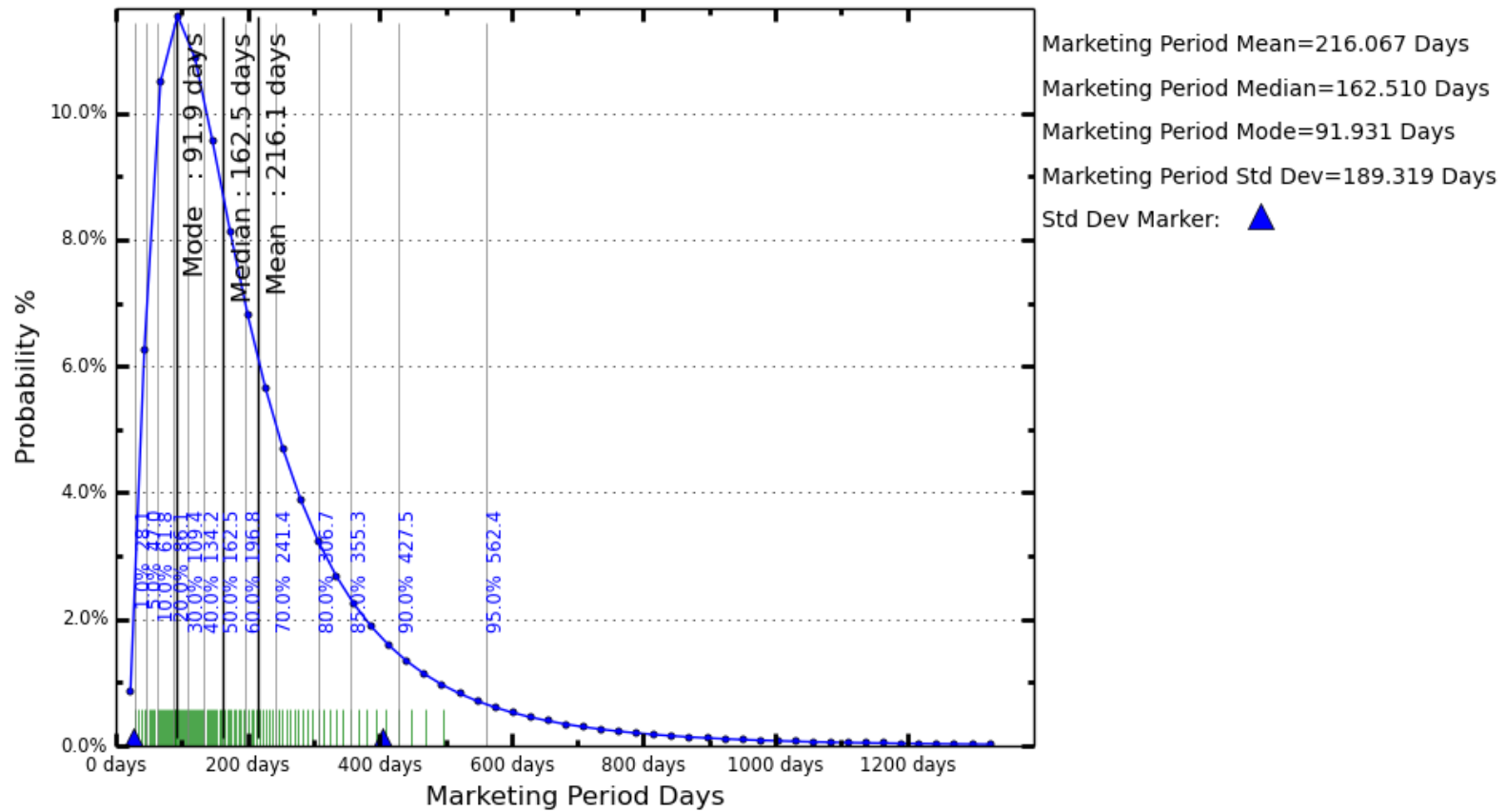
Marketing Period Median=162.510 Days

Marketing Period Mode=91.931 Days

Marketing Period Std Dev=189.319 Days

Marketing Period Graphs

Cumulative Probability of Marketing Period
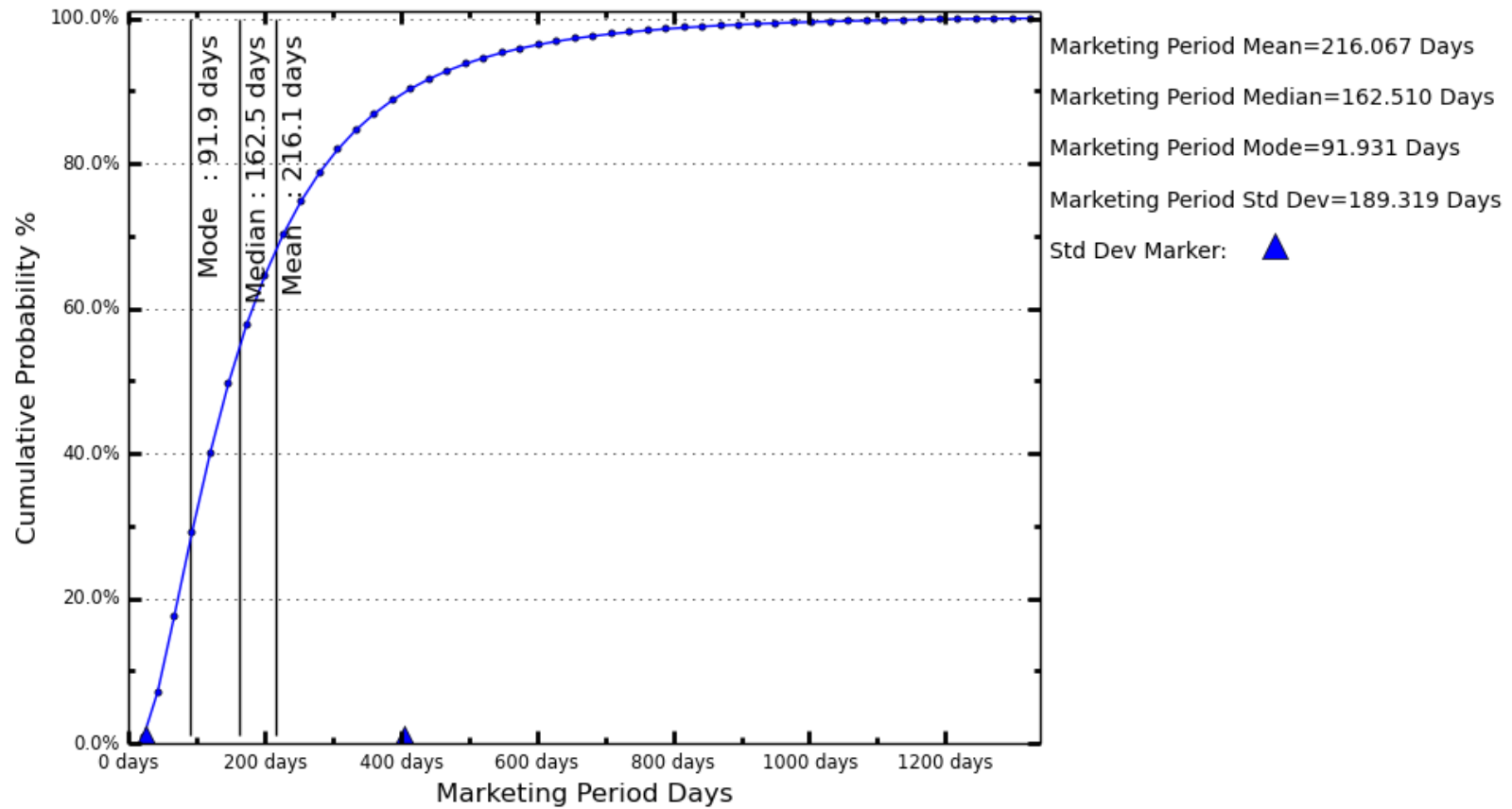
Marketing Period Mean=216.067 Days

Marketing Period Median=162.510 Days

Marketing Period Mode=91.931 Days

Marketing Period Std Dev=189.319 Days

Std Dev Marker: ▲

VFC DLOM CALCULATOR

Marketing Period Graphs

Probabilities by Marketing Period Intervals

Marketing Period Mean=216.067 Days

Marketing Period Median=162.510 Days

Marketing Period Mode=91.931 Days

Marketing Period Std Dev=189.319 Days

Std Dev Marker: ▲

VFC DLOM CALCULATOR

Price Volatility Graphs

Probabilities by Price Volatility Intervals

Price Volatility Mean=14.978 %

Price Volatility Median=10.998 %

Price Volatility Mode=5.930 %

Price Volatility Std Dev=13.848 %

VFC DLOM CALCULATOR
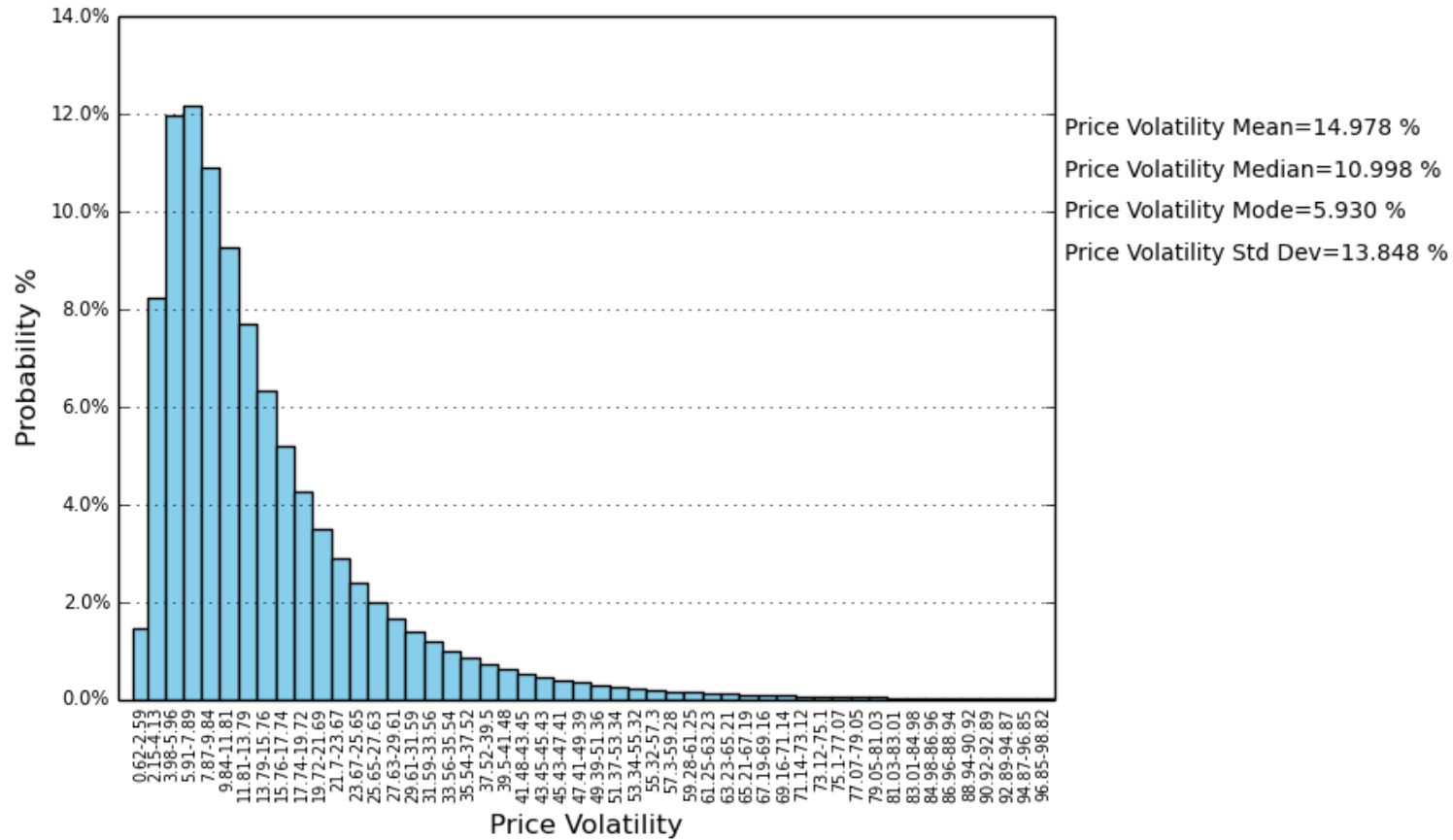
Price Volatility Graphs

Cumulative Probability of Price Volatility
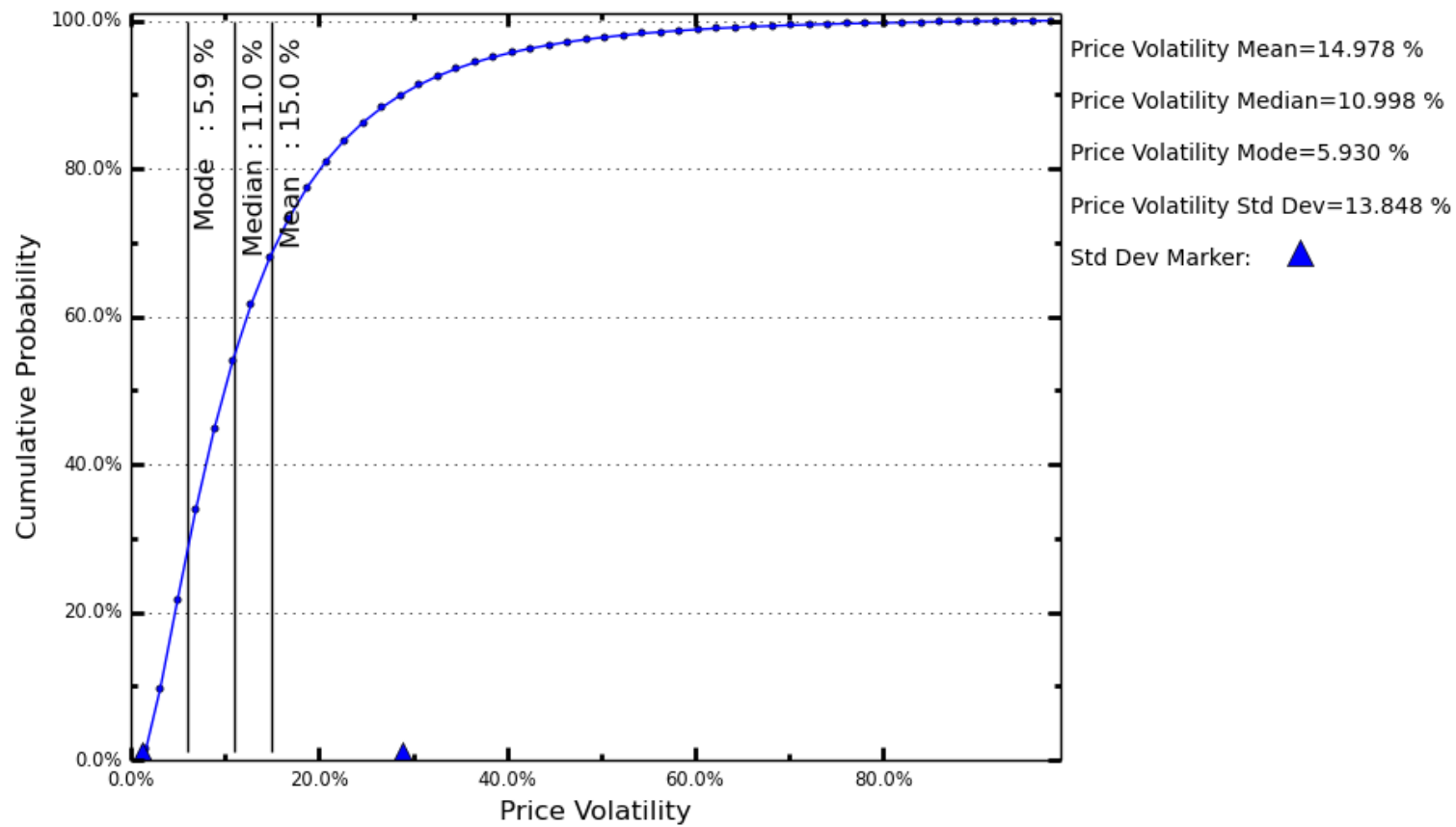
Price Volatility Mean=14.978 %

Price Volatility Median=10.998 %

Price Volatility Mode=5.930 %

Price Volatility Std Dev=13.848 %

Std Dev Marker: ▲

VFC DLOM CALCULATOR

Price Volatility Graphs

Probabilities by Price Volatility Intervals

Price Volatility Mean=14.978 %

Price Volatility Median=10.998 %

Price Volatility Mode=5.930 %

Price Volatility Std Dev=13.848 %

Std Dev Marker: ▲
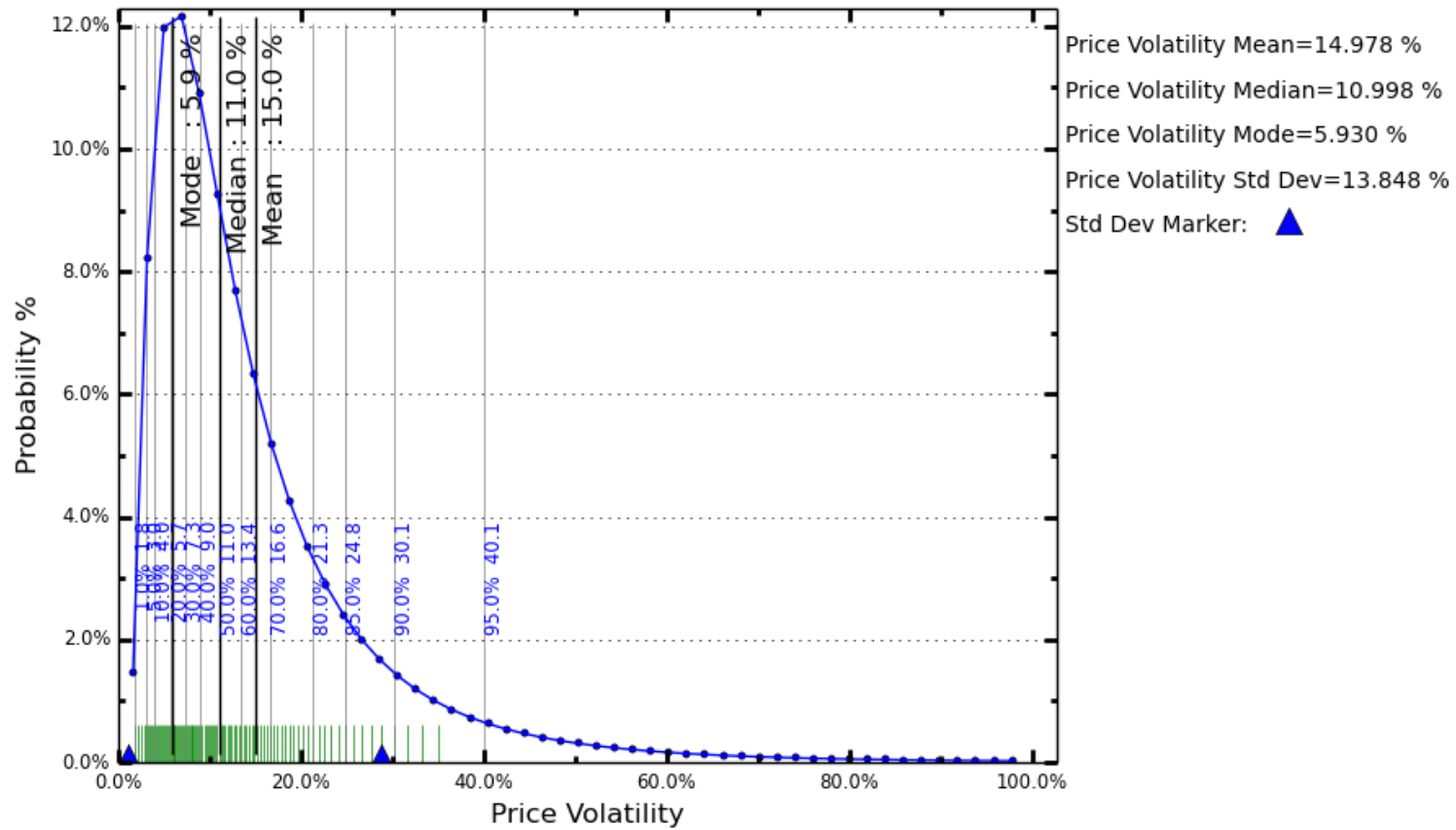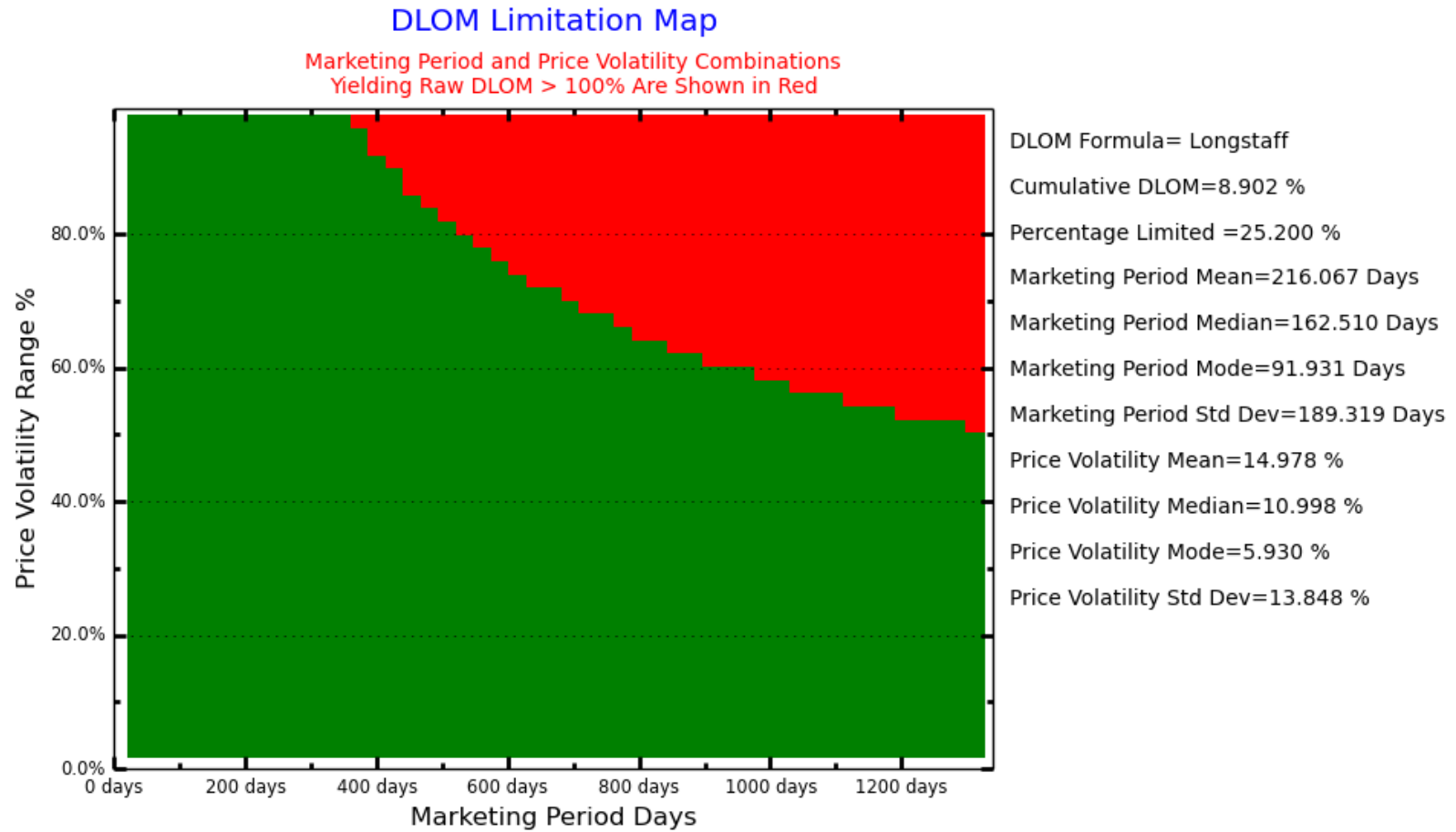
Combined Probabilities Graphs

Comparative Probability Distributions of Marketing Period and Price Volatility

Combined Probabilities Graphs

DLOM Limitation Map

Marketing Period and Price Volatility Combinations
Yielding Raw DLOM > 100% Are Shown in Red

DLOM Formula= Longstaff

Cumulative DLOM=8.902 %

Percentage Limited =25.200 %

Marketing Period Mean=216.067 Days

Marketing Period Median=162.510 Days

Marketing Period Mode=91.931 Days

Marketing Period Std Dev=189.319 Days

Price Volatility Mean=14.978 %

Price Volatility Median=10.998 %

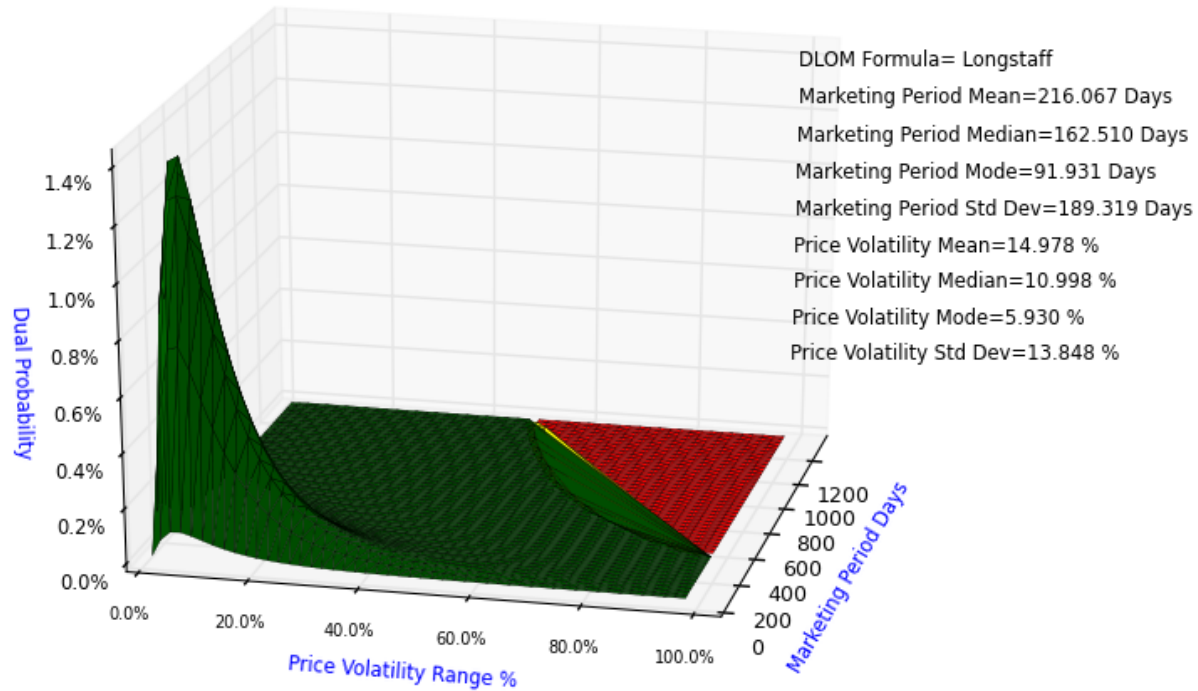Price Volatility Mode=5.930 %

Price Volatility Std Dev=13.848 %

Combined Probabilities Graphs

Combined Probabilities
Marketing Period and Price Volatility Combinations
Yielding Raw DLOM > 100% Are Shown in Red

DLOM Formula= Longstaff
Marketing Period Mean=216.067 Days
Marketing Period Median=162.510 Days
Marketing Period Mode=91.931 Days
Marketing Period Std Dev=189.319 Days
Price Volatility Mean=14.978 %
Price Volatility Median=10.998 %
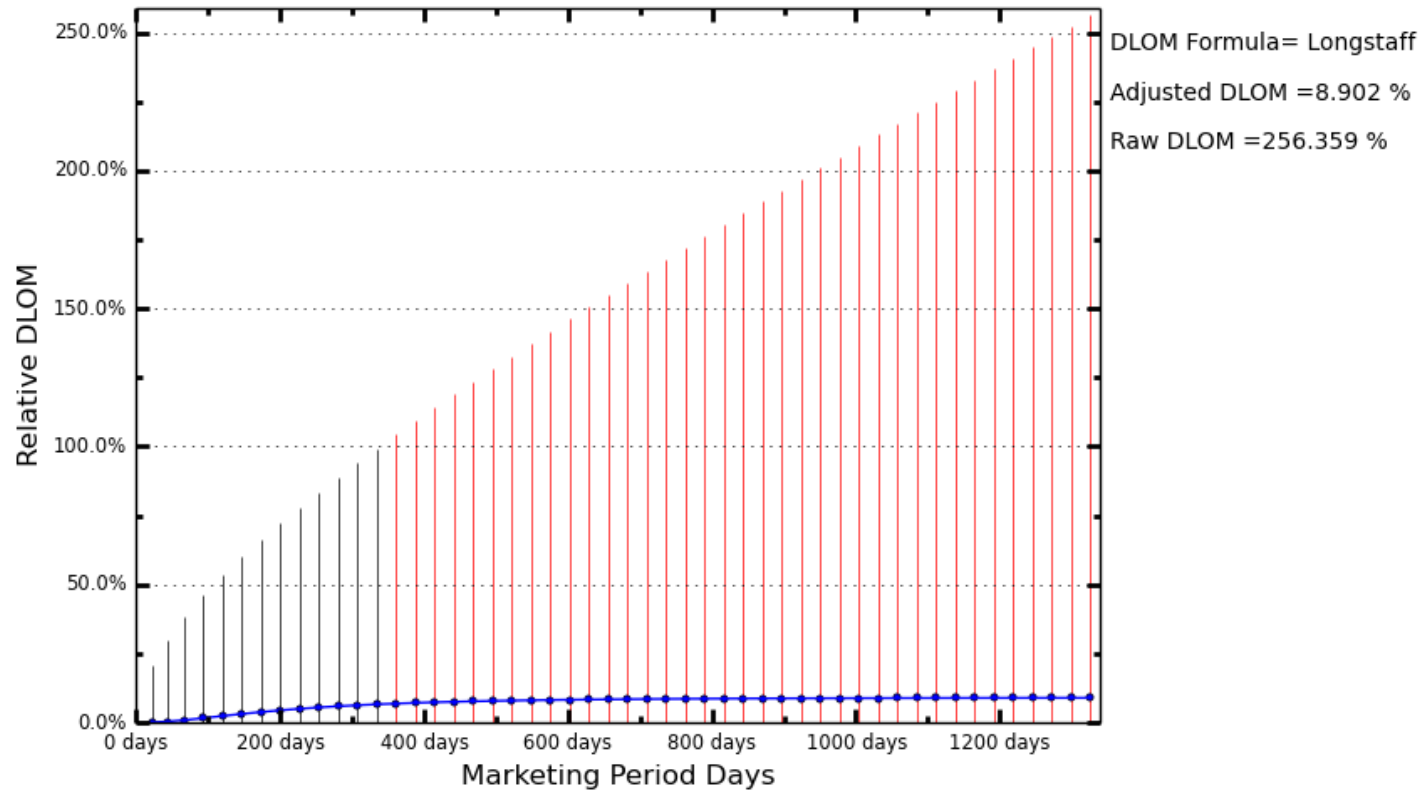Price Volatility Mode=5.930 %
Price Volatility Std Dev=13.848 %

DLOM Graphs

Some combinations of marketing period and price volatility are yielding raw DLOMs greater than 100%.
The VFC DLOM Calculator has limited these combinations to 100% DLOM.

Cumulative Probability Adjusted DLOM (Marketing Period)

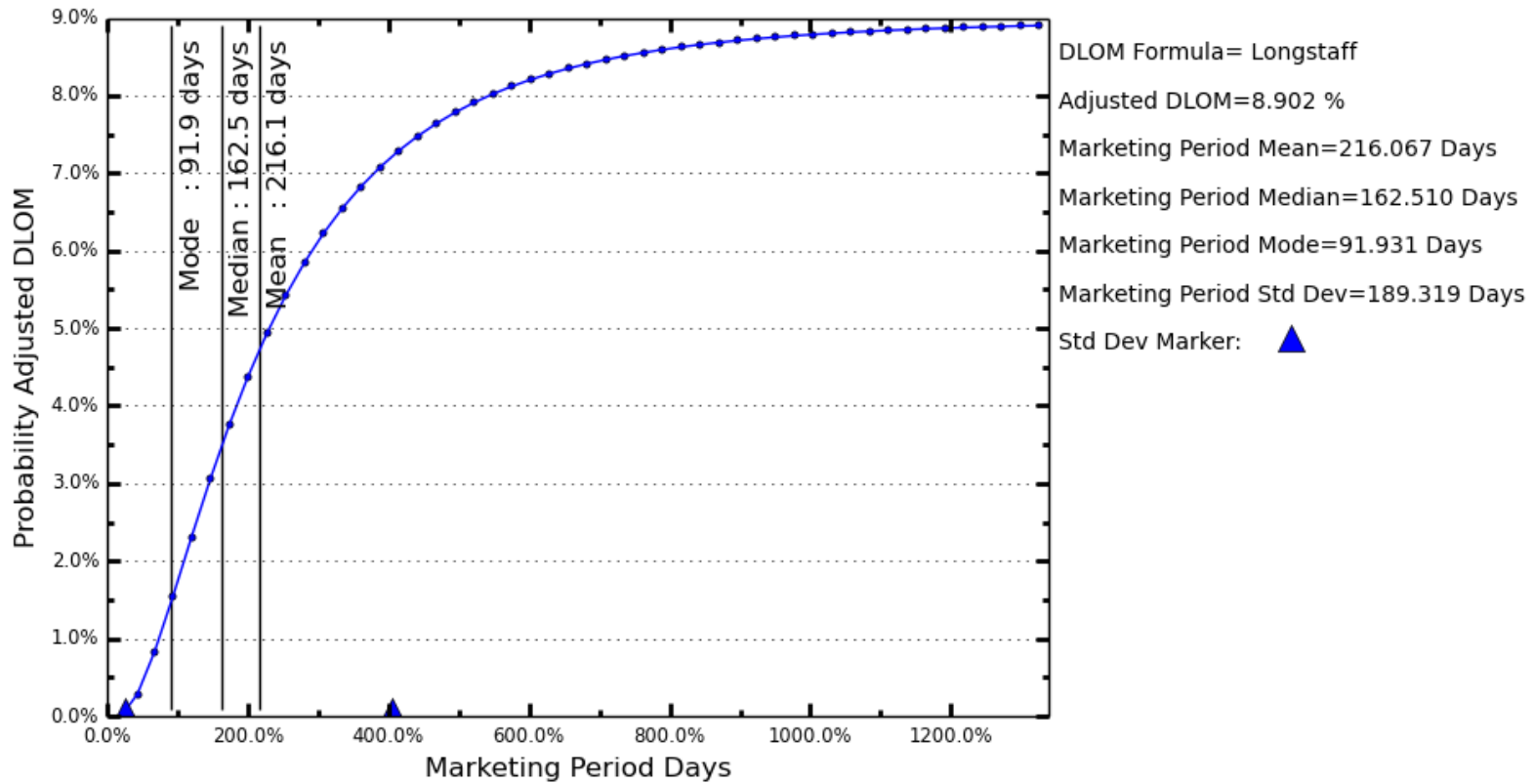DLOM Formula= Longstaff

Adjusted DLOM =8.902 %

Raw DLOM =256.359 %

DLOM Graphs

Some combinations of marketing period and price volatility are yielding raw DLOMs greater than 100%.
The VFC DLOM Calculator has limited these combinations to 100% DLOM.

Cumulative Probability Adjusted DLOM (Marketing Period)

DLOM Formula= Longstaff

Adjusted DLOM=8.902 %

Marketing Period Mean=216.067 Days

Marketing Period Median=162.510 Days

Marketing Period Mode=91.931 Days

Marketing Period Std Dev=189.319 Days

Std Dev Marker: ▲
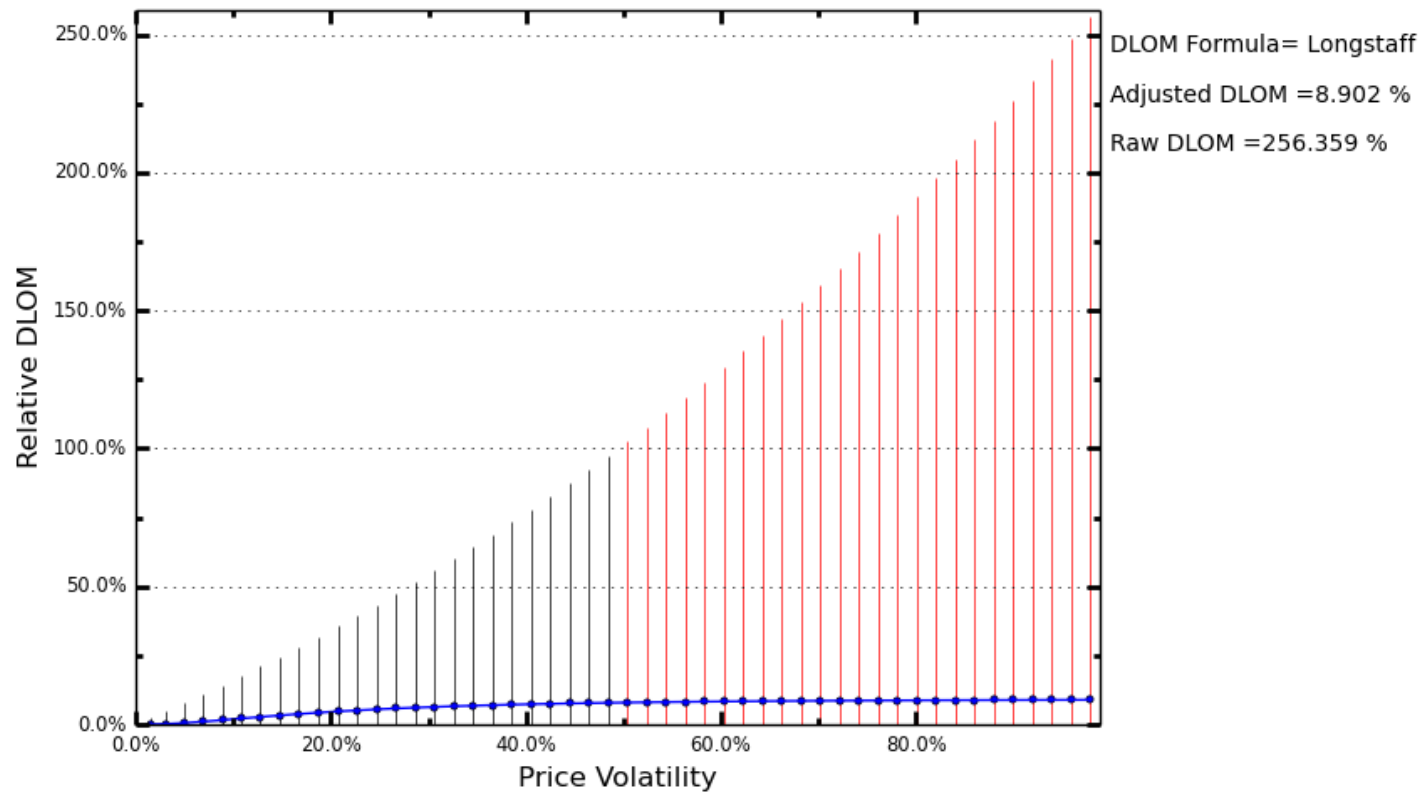
VFC DLOM CALCULATOR

DLOM Graphs

Some combinations of marketing period and price volatility are yielding raw DLOMs greater than 100%.
The VFC DLOM Calculator has limited these combinations to 100% DLOM.

Cumulative Probability Adjusted DLOM (Price Volatility)

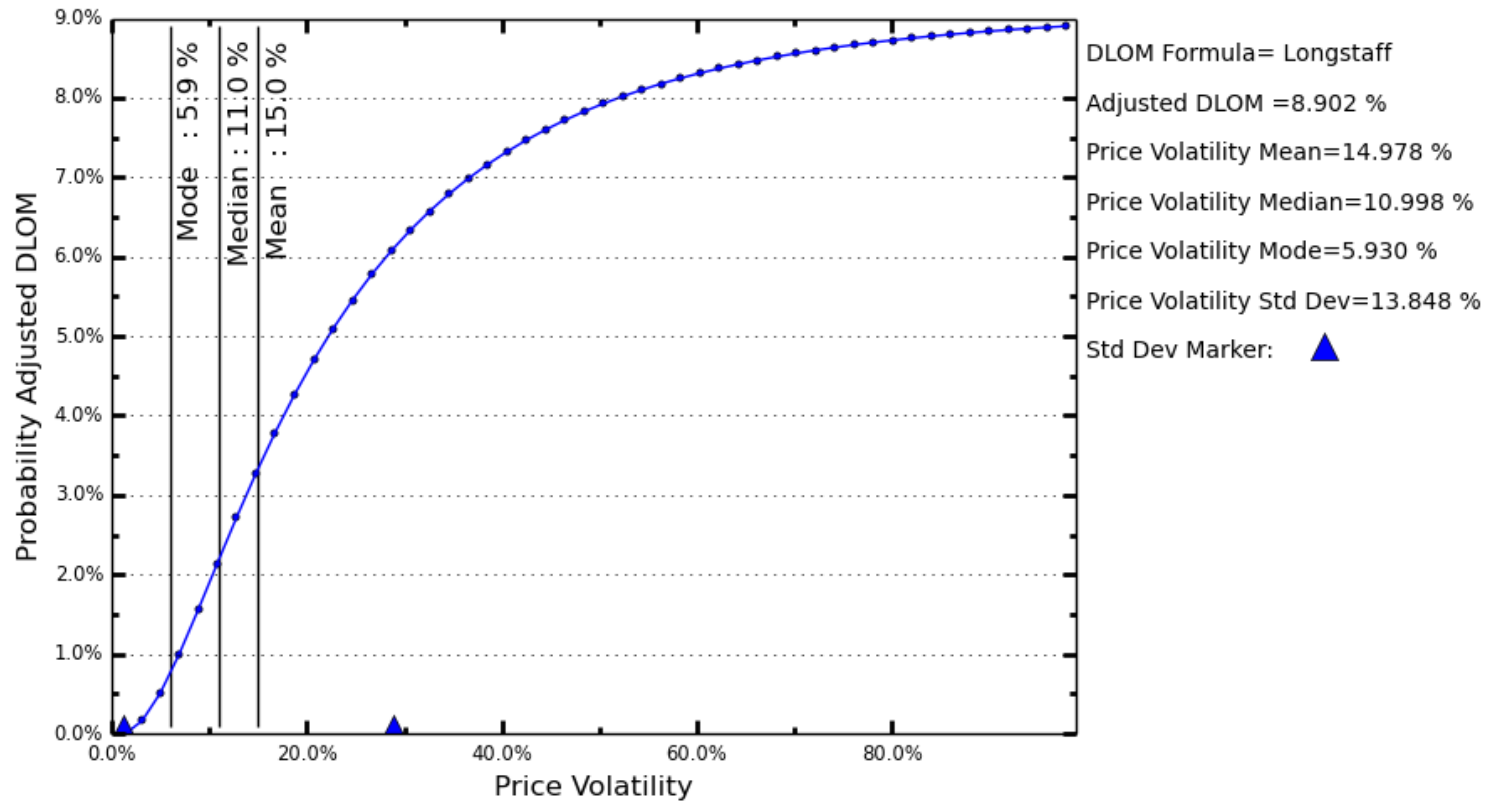DLOM Formula= Longstaff

Adjusted DLOM =8.902 %

Raw DLOM =256.359 %

DLOM Graphs

Some combinations of marketing period and price volatility are yielding raw DLOMs greater than 100%.
The VFC DLOM Calculator has limited these combinations to 100% DLOM.

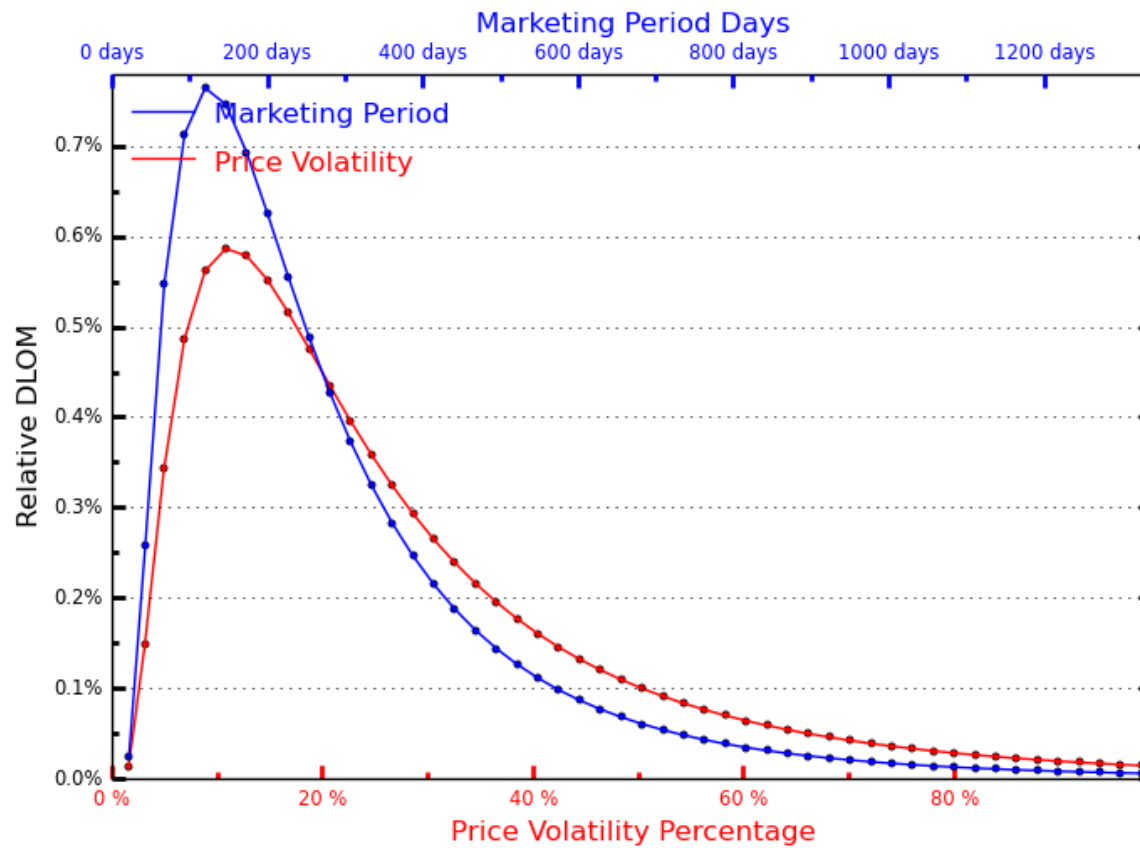Cumulative Probability Adjusted DLOM (Price Volatility)

DLOM Formula= Longstaff

Adjusted DLOM =8.902 %

Price Volatility Mean=14.978 %

Price Volatility Median=10.998 %

Price Volatility Mode=5.930 %

Price Volatility Std Dev=13.848 %

Std Dev Marker: ▲

DLOM Graphs

Separate DLOM Distributions of Marketing Period and Price Volatility
(Before Combining the Probabilities)

VFC DLOM
CALCULATOR

DLOM Graphs

Distribution of Probability Adjusted DLOM

DLOM Formula= Longstaff
Cumulative DLOM=8.902 %
Percentage Limited =25.200 %
Marketing Period Mean=216.067 Days
Marketing Period Median=162.510 Days
Marketing Period Mode=91.931 Days
Marketing Period Std Dev=189.319 Days
Price Volatility Mean=14.978 %
Price Volatility Median=10.998 %
Price Volatility Mode=5.930 %
Price Volatility Std Dev=13.848 %