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MHF4U  
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### MHF4U M1 Culminating Activity



Figure 1. Value of APPL stock in dollars over the period of 05/24/2016 to 06/24/2016. Source: NASDAQ (2016)

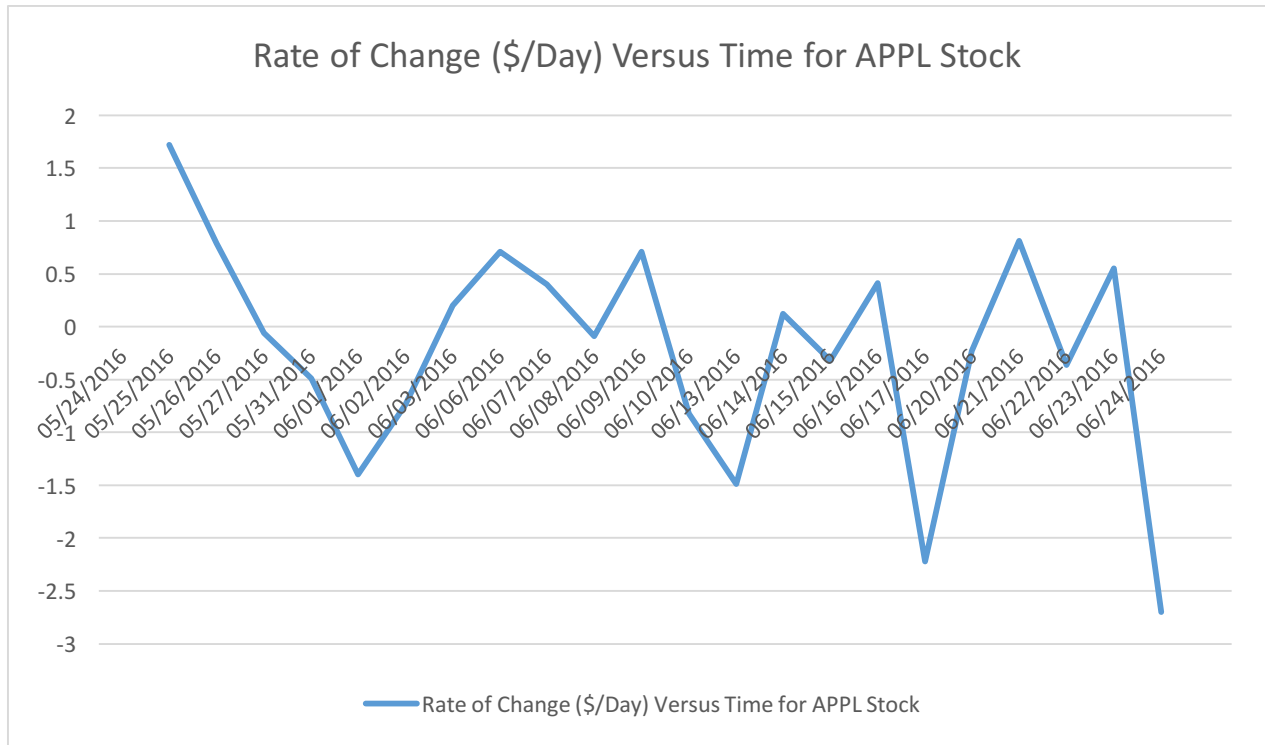
Over the period of May 24, 2016 to June 24, 2016 Apple's stock displays notable fluctuation, but ultimately decreases over the thirty-one-day period. Note that the thirty-day period does not include weekends. The behaviour of APPL stock over this period is further described in the Figure 2.

Interval of Increase/Decrease (x, x)	Direction of Change	Rate of Change over Interval (\$/interval)	Average Rate of Change (\$/Day)	Type of Change
(05/24, 05/26)	Positive	2.51	1.26	Variable
(05/26, 06/02)	Negative	-2.69	-0.67	Variable
(06/02, 06/07)	Positive	1.31	4.4	Variable
(06/07, 06/08)	Negative	-0.9	-0.09	Constant
(06/08, 06/09)	Positive	0.71	0.71	Constant
(06/09, 06/13)	Negative	-2.31	-1.16	Variable
(06/13, 06/14)	Positive	0.12	0.12	Constant
(06/14, 06/15)	Negative	-0.32	-0.32	Constant
(06/15, 06/16)	Positive	0.41	0.41	Constant
(06/16, 06/20)	Negative	-2.45	-1.23	Variable
(06/20, 06/21)	Positive	0.81	0.81	Constant
(06/21, 06/22)	Negative	-0.36	-0.36	Constant
(06/22, 06/23)	Positive	0.55	0.55	Constant
(06/23, 06/24)	Negative	-2.70	-2.70	Constant

Figure 2. Direction of change, rate of change, average rate of change per day, and type of change for value of APPL stock in dollars over the period of 05/24/2016 to 06/24/2016. Uses data from Figure 3.

<b>Date</b>	<b>Close/Last (\$)</b>	<b>Rate of Change (\$/day)</b>
06/24/2016	93.40	-2.70
06/23/2016	96.10	0.55
06/22/2016	95.55	-0.36
06/21/2016	95.91	0.81
06/20/2016	95.10	-0.23
06/17/2016	95.33	-2.22
06/16/2016	97.55	0.41
06/15/2016	97.14	-0.32
06/14/2016	97.46	0.12
06/13/2016	97.34	-1.49
06/10/2016	98.83	-0.82
06/09/2016	99.65	0.71
06/08/2016	98.94	-0.09
06/07/2016	99.03	0.4
06/06/2016	98.63	0.71
06/03/2016	97.92	0.20
06/02/2016	97.72	-0.74
06/01/2016	98.46	-1.4
05/31/2016	99.86	-0.49
05/27/2016	100.35	-0.06
05/26/2016	100.41	0.79
05/25/2016	99.62	1.72
05/24/2016	97.90	

Figure 3. Date, price, and rate of change for value of APPL stock in dollars over the period of 05/24/2016 to 06/24/2016. Source: NASDAQ (2016)



As with most stocks, Apple's stock performance fluctuates notably during the period of 05/23/2016 to 06/23/2016. The average rate of change, however, also fluctuates noticeably during this period. The APPL stock value ultimately decreases over this period, and so does the average rate of change. This does not necessarily say much, however, because over the period the rate of change can vary by significant amounts over short periods of time. This implies that, while in this period the average rate of change increases, this net decrease is susceptible to similar fluctuation in the future and may not last long.

Table 1 displays that the rate of change is sometimes variable and sometimes constant depending on the interval of increase or decrease. This is to be expected for such complex systems as the stock market, and the significant fluctuation implies that no events of much significance occurred during this period to encourage or deter Apple investors. For instance, the period of 06/16 to 06/17 yields a decrease in the rate of change of 1.99 \$/day, but the next day, 06/17 to 06/18 yields an increase in the rate of change of 2.63 \$/day.

The most significant interval of change is a decrease of 2.70 \$/day between 06/23 and 06/24, which happens to coincide with Britain's vote to leave the European Union. This has little, if anything, to do with Apple, but the market as a whole did definitely suffer from this decision, and therefore this significant rate of change should be expected. It is also possible that the net decrease of the rate of change is the result of apprehension and related events leading up to this vote, but there are so many factors in the stock market that this is difficult to determine.

## References

NASDAQ. *Apple Inc. Interactive Chart*. (2016, June 24). Retrieved June 24, 2016, from <http://www.nasdaq.com/symbol/aapl/interactive-chart>