

Financial derivatives, summer term 2015/2016
Extra credit 1: Option strategies

- You can buy and sell call options on Amazon stock, listed on the following page (but not stocks themselves); recall the difference between bid and ask price.
- All of them expire on 11th March 2016.
- You can buy and sell an arbitrary integer number of the options.
- Construct a strategy, based on your expectation about Amazon stock price in future. The only requirement is, that your loss cannot be higher than 100 USD, regardless of the stock price at the time of expiration of the options.
- This extra credit homework can be solved individually or in pairs.
- Submission:
 - By e-mail to

beata.ulohy@gmail.com

with subject

derivatives 2016 – extra credit 1 – name(s)/nick.

In case you want to use a nick in the list of strategies, don't forget to write the name(s) in the body of the e-mail.
 - Submit: description of the strategy (which options do you buy/sell and in what amount) and an R-script which plots your profit diagram
 - **Deadline: Thursday 25th February 2016**
- Grading:
 - 1 point for a strategy satisfying the given condition on a possible loss and correctly computed profit diagram.
 - 1 additional point for a strategy which yields a profit at expiration time (so we need to wait a little with this...)
 - 3 additional points (i.e., together 5 points) for a strategy with the highest profit. This, naturally, applies only if there is a strategy with a positive profit among the submitted strategies. But so far, it has always been the case. If there are more strategies sharing the first place, these 3 points are splitted among them

Amazon.com, Inc. (AMZN) ★ Watchlist

536.67 **+2.57(+0.48%)** NASDAQ - As of 12:29pm EST

March 11, 2016 ▾

In The Money

Calls

Strike [^] Filter	Contract Name	Last	Bid	Ask	Change	%Change	Volume	Open Interest	Implied Volatility
510.00	AMZN160311C00510000	37.00	34.65	36.40	3.00	8.82%	10	26	39.49%
512.50	AMZN160311C00512500	33.05	33.00	34.55	0.00	0.00%	2	14	39.11%
515.00	AMZN160311C00515000	31.95	30.95	32.10	10.23	47.10%	2	81	37.39%
517.50	AMZN160311C00517500	20.80	29.55	30.55	0.00	0.00%	1	12	37.49%
520.00	AMZN160311C00520000	20.40	27.80	29.15	0.00	0.00%	2	170	37.79%
522.50	AMZN160311C00522500	21.80	26.20	27.75	0.00	0.00%	1	8	37.99%
525.00	AMZN160311C00525000	26.15	24.60	25.65	1.65	6.73%	10	47	36.73%
530.00	AMZN160311C00530000	20.00	21.80	22.60	0.00	0.00%	1	15	36.19%
535.00	AMZN160311C00535000	18.53	19.00	20.00	-0.18	-0.96%	17	21	36.12%
540.00	AMZN160311C00540000	15.82	16.40	17.10	0.42	2.73%	19	55	35.11%
545.00	AMZN160311C00545000	10.22	14.10	14.85	0.00	0.00%	3	18	34.92%
550.00	AMZN160311C00550000	11.80	12.00	12.75	0.00	0.00%	5	121	34.63%
552.50	AMZN160311C00552500	6.35	10.95	11.70	0.00	0.00%	1	3	34.34%
555.00	AMZN160311C00555000	11.20	10.00	10.85	1.20	12.00%	6	52	34.33%
557.50	AMZN160311C00557500	8.90	9.10	10.00	0.00	0.00%	2	3	34.23%
560.00	AMZN160311C00560000	8.25	8.30	9.00	-0.21	-2.48%	2	532	33.72%
562.50	AMZN160311C00562500	7.84	7.55	8.30	0.00	0.00%	11	25	33.72%
565.00	AMZN160311C00565000	6.85	6.90	7.50	-0.31	-4.33%	5	37	33.41%
567.50	AMZN160311C00567500	5.80	6.20	6.95	0.00	0.00%	3	8	33.55%
570.00	AMZN160311C00570000	5.65	5.60	6.30	0.30	5.61%	4	21	33.37%