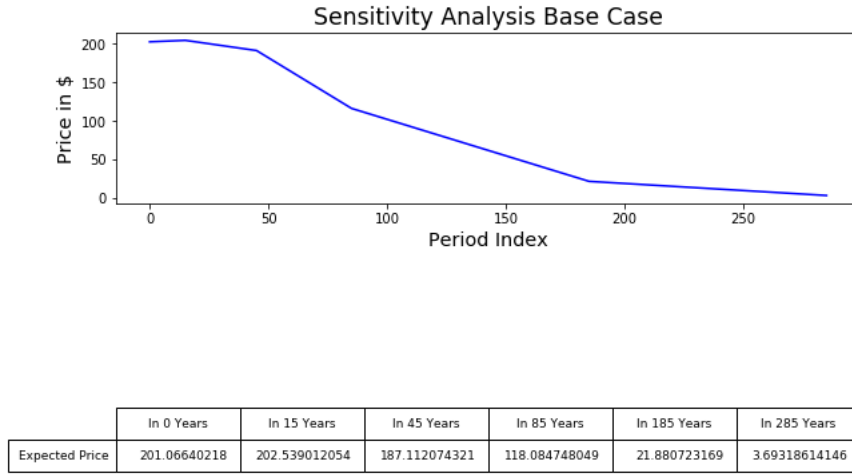


# 1 Sensitivity Analysis with Quasi-Newton

Table 1: Quasi-Newton Sensitivity Analysis

Final Utility	Final Norm of Gradient	Number of Iterations
-9.4942	$8.6500 \times 10^{-4}$	214.6897
Number of Utility Iterations	Number of Gradient Evaluations	
549.4333	549.4333	
Standard Deviation of Final Utility	Number of Tests	Total Time Average
0.0011	29	1472.2

Figure 1: Sensitivity Test Average



	In 0 Years	In 15 Years	In 45 Years	In 85 Years	In 185 Years	In 285 Years
Expected Price	201.06640218	202.539012054	187.112074321	118.084748049	21.880723169	3.69318614146

	Iteration Number	Utility at Start Point	Norm of Gradient
Test 1	213.0	9.49269658533	0.0007634950268
Test 2	174.0	9.49461016831	0.000874383316829
Test 3	199.0	9.49340451124	0.00071055865618
Test 4	230.0	9.49535567336	0.000910136908193
Test 5	231.0	9.49488360286	0.000858997716733
Test 6	202.0	9.49302622425	0.000802076739772
Test 7	231.0	9.49514268786	0.000947424812049
Test 8	165.0	9.49318217437	0.000993996238838
Test 9	199.0	9.49563492163	0.000704831398821
Test 10	231.0	9.49514420684	0.000970804158501
Test 11	227.0	9.4952641927	0.000985176611482
Test 12	224.0	9.49250033592	0.000779075627789
Test 13	225.0	9.49218026919	0.000817705435568
Test 14	242.0	9.49332388844	0.000871082346933
Test 15	162.0	9.49350528986	0.000805748687418
Test 16	202.0	9.49333713762	0.000700724968602
Test 17	187.0	9.49403461329	0.000758329361405
Test 18	202.0	9.49402000678	0.000908135766683
Test 19	207.0	9.49426270781	0.000794495822206
Test 20	217.0	9.49490041176	0.000863356636833
Test 21	200.0	9.49495663613	0.000970493335606
Test 22	245.0	9.49316128325	0.000899781771906
Test 23	202.0	9.49479246214	0.000810800493629
Test 24	243.0	9.49563985013	0.000933327804445
Test 25	247.0	9.49538874247	0.000942364929384
Test 26	254.0	9.49254162286	0.000946078218015
Test 27	223.0	9.49460838567	0.00087729434841
Test 28	227.0	9.49438373486	0.000914537915264
Test 29	215.0	9.49507857007	0.000969865327315
Average	214.689655172	9.49417106541	0.00086500277178