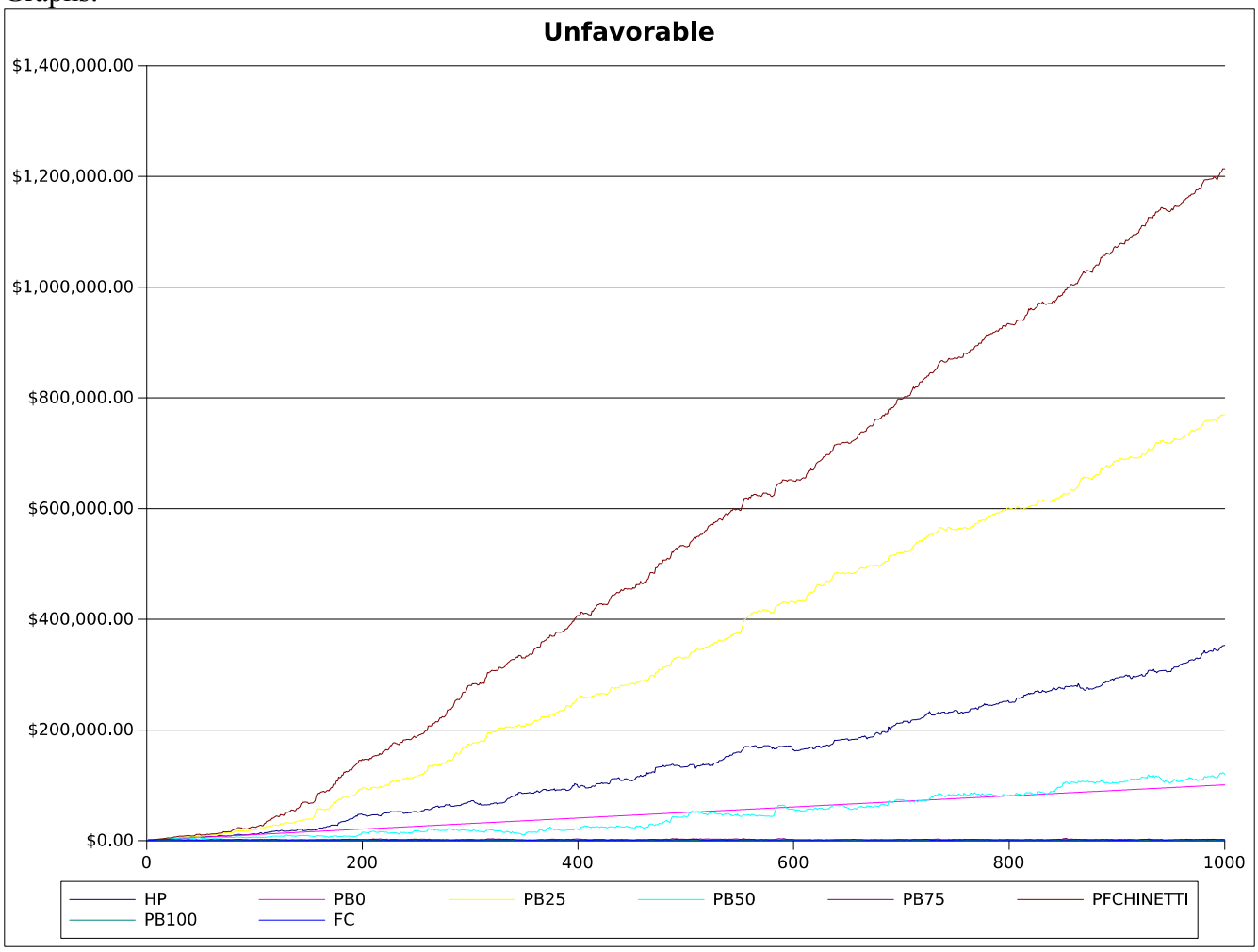
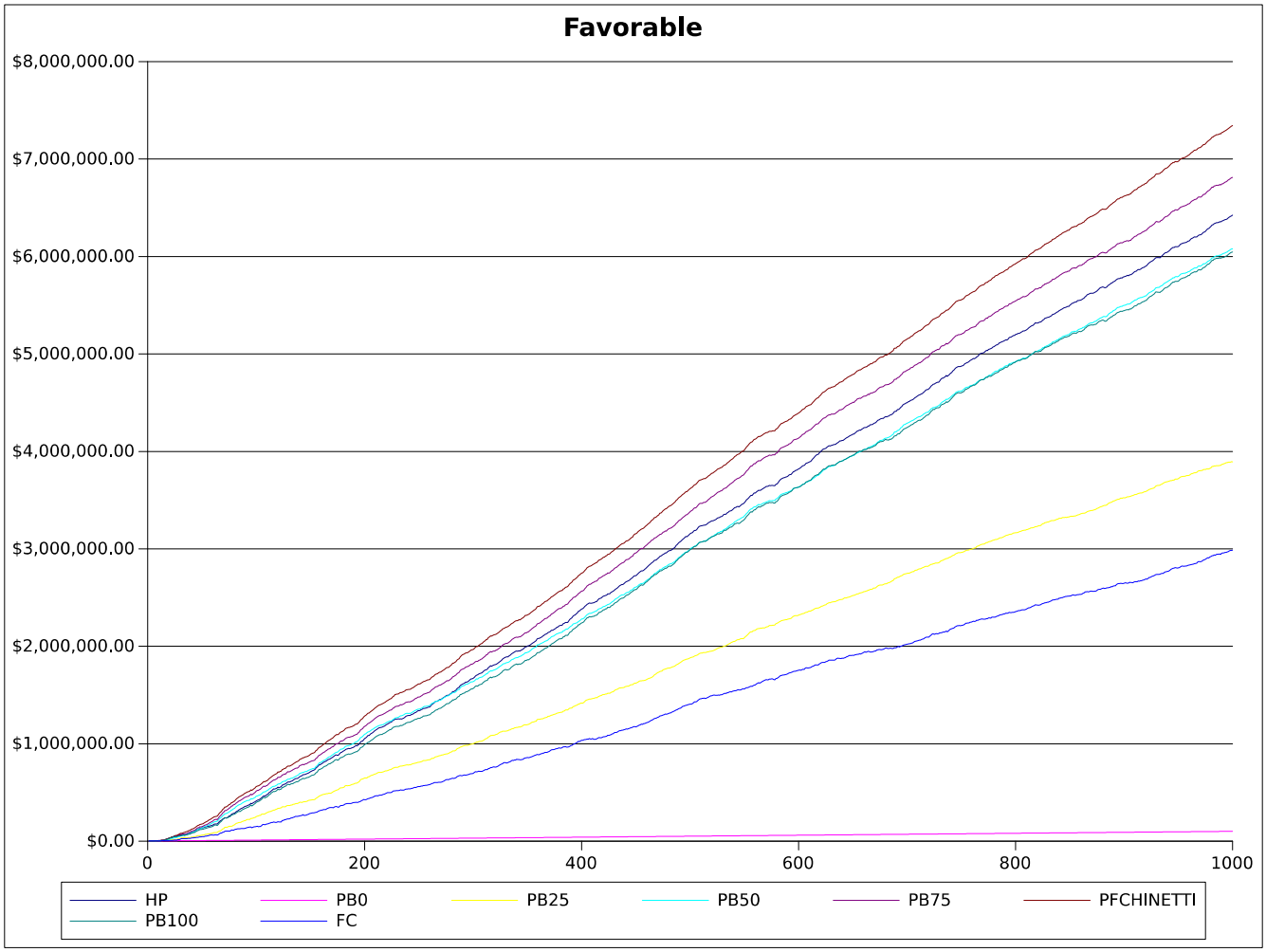
Peter Chinetti
CS 480
Project – Part 1

Graphs:

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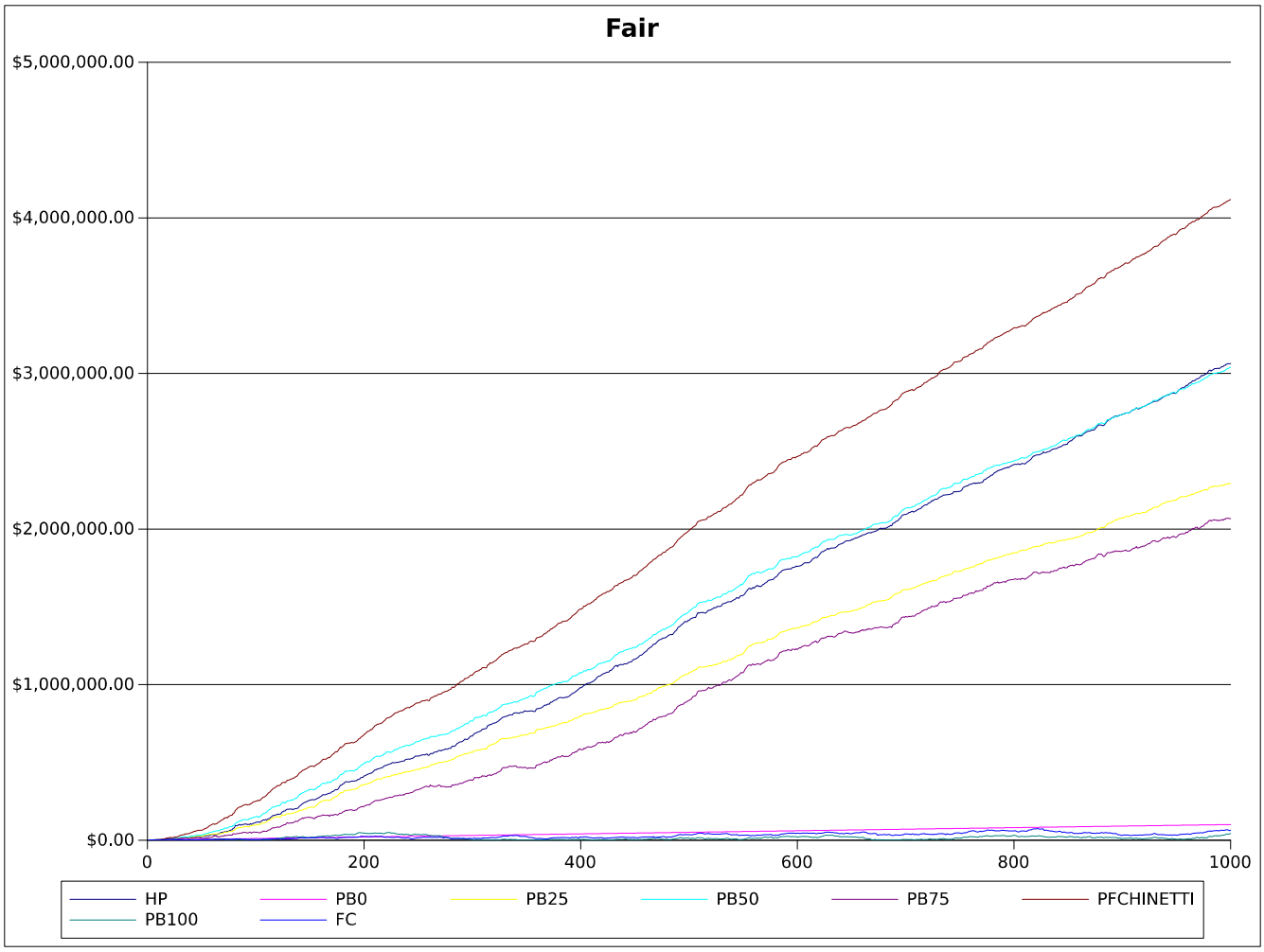
$6,000,000.00
$5,000,000.00
$4,000,000.00
$3,000,000.00
$2,000,000.00
$1,000,000.00
$0.00
0
200
400
600
800
1000
HP
PB0
PB25
PB50
PB75
PFCHINETTI
PB100
FC


Fair
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$3,000,000.00
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$0.00
0
200
400
600
800
1000
HP
PB0
PB25
PB50
PB75
PFCHINETTI
PB100
FC

Tables:
Fair:

FC	HP	PB0	PB25	PB50	PB75	PFCHINETTI	PB100
$1,063.06	$1,326.53	$1,100	$1,290.03	$1,258.63	$1,264.05	$1,326.53	$1,204.13
$1,040.06	$1,488.90	$1,200	$1,564.52	$1,456.39	$1,399.10	$1,601.02	$1,198.97
$1,056.88	$1,612.24	$1,300	$1,655.42	$1,547.28	$1,490.43	$1,707.33	$1,196.35
$1,069.16	$1,887.87	$1,400	$1,691.93	$1,648.21	$1,669.68	$2,032.58	$1,194.78
$1,124.49	$2,130.99	$1,500	$1,813.44	$1,974.36	$1,837.66	$2,353.31	$1,246.41
$1,186.07	$2,432.16	$1,600	$1,957.65	$2,129.86	$2,043.37	$2,609.49	$1,443.34
$1,425.32	$2,758.52	$1,700	$2,288.52	$2,566.84	$2,331.44	$3,109.30	$1,584.16
$1,519.69	$2,500.90	$1,800	$2,534.61	$2,775.19	$2,351.55	$3,363.14	$1,551.24
$1,742.36	$3,041.22	$1,900	$3,052.99	$3,359	$2,927.10	$4,256.40	$1,650.61
$1,840.09	$3,164.94	$2,000	$3,293.91	$3,627.10	$3,174.68	$4,715.22	$1,742.49
$65,061.38	$3,042,328.30	$100,200	$2,279,654.40	$3,012,012.27	$2,061,015.33	$4,085,713.61	$32,131.66
$63,090.23	$3,044,145.92	$100,300	$2,279,355.34	$3,011,131.05	$2,057,065.15	$4,089,365.40	$31,936.03
$63,586.27	$3,051,443.20	$100,400	$2,286,435.39	$3,018,547.52	$2,064,481.62	$4,097,309.34	$34,435.09
$65,584.20	$3,052,261.94	$100,500	$2,285,612.98	$3,020,380.33	$2,063,444.42	$4,097,265.78	$36,217.96
$67,039.52	$3,059,582.41	$100,600	$2,288,984.29	$3,028,000.03	$2,068,789.98	$4,105,096.19	$38,963.09
$68,726.85	$3,060,311.31	$100,700	$2,289,503.66	$3,029,244.38	$2,069,309.57	$4,106,717.33	$40,950.34
$65,309.16	$3,063,563.34	$100,800	$2,290,192.55	$3,033,192.19	$2,069,150.28	$4,112,032.80	$38,096.47
$62,148.73	$3,061,932.61	$100,900	$2,294,115.75	$3,038,303.95	$2,066,600.57	$4,114,935.55	$39,705.83
$65,279.26	$3,063,321.68	$101,000	$2,293,884.43	$3,038,724.34	$2,067,642.56	$4,118,608.84	$43,325.07

Favorable:

FC	HP	PB0	PB25	PB50	PB75	PFCHINETTI	PB100
$1,136.15	$1,355.96	$1,100	$1,290.03	$1,331.72	$1,410.20	$1,399.08	$1,350.29
$1,225.91	$1,575.31	$1,200	$1,564.52	$1,529.47	$1,726.73	$1,582.97	$1,527.38
$1,309.44	$1,635.84	$1,300	$1,682.80	$1,647.75	$1,846	$1,706.35	$1,594.36
$1,450.02	$2,102.26	$1,400	$1,825.33	$1,959.07	$2,294.12	$2,196.88	$1,889.15
$1,504.27	$2,247.37	$1,500	$2,082.53	$2,470.36	$2,747.69	$2,556.90	$2,096.96
$1,545.39	$2,594.80	$1,600	$2,230.28	$2,630.07	$3,000.31	$2,888.23	$2,392.72
$1,854.89	$3,228.23	$1,700	$2,790.13	$3,355.08	$3,807.21	$3,525.17	$3,005.51
$2,088.73	$3,485.18	$1,800	$3,190.73	$3,745.48	$4,394.40	$3,635.73	$3,342.27
$2,372.16	$4,304.73	$1,900	$3,995.53	$4,757.70	$5,629.54	$4,390.14	$4,077.39
$2,827.27	$4,985.07	$2,000	$4,134.03	$5,154.80	$6,384.36	$5,092.80	$4,823.25
$2,958,905.63	$6,374,275.31	$100,200	$3,873,038.61	$6,032,445.34	$6,753,983.94	$7,283,215.09	$5,992,592.76
$2,963,716.50	$6,377,064.10	$100,300	$3,876,277.97	$6,036,296.24	$6,761,314.58	$7,289,479.40	$5,999,923.40
$2,964,530.48	$6,380,519.09	$100,400	$3,883,358.02	$6,043,712.71	$6,768,731.05	$7,297,744.04	$6,003,378.39
$2,967,438.72	$6,386,587.54	$100,500	$3,884,305.21	$6,047,315.11	$6,774,640.92	$7,303,653.91	$6,009,446.19
$2,971,101.74	$6,395,760.03	$100,600	$3,888,598.69	$6,055,857	$6,784,606.04	$7,312,623.91	$6,019,965.10
$2,978,434.29	$6,403,029.18	$100,700	$3,889,118.06	$6,062,694.22	$6,791,249.47	$7,319,789.32	$6,026,712.26

$2,983,347.87	$6,411,691.06	$100,800	$3,889,806.96	$6,071,700.94	$6,802,407.64	$7,331,412.50	$6,038,029.32
$2,984,072.82	$6,418,318.55	$100,900	$3,893,730.15	$6,076,812.70	$6,808,692.34	$7,338,674.16	$6,044,656.80
$2,986,065.14	$6,423,806.36	$101,000	$3,893,498.83	$6,079,181.77	$6,812,458.29	$7,343,667.22	$6,045,555.27

Unfavorable:

FC	HP	PB0	PB25	PB50	PB75	PFCHINETTI	PB100
$916.96	$1,107.21	$1,100	$1,143.89	$1,112.48	$971.79	$1,143.89	$911.88
$926.98	$1,272.49	$1,200	$1,418.38	$1,325.37	$1,090.79	$1,418.38	$890.65
$829.22	$1,270.64	$1,300	$1,509.27	$1,416.26	$1,181.29	$1,516.33	$786.80
$905.18	$1,332.72	$1,400	$1,545.78	$1,467.31	$1,163.46	$1,532.65	$728.43
$959.37	$1,432.72	$1,500	$1,638.87	$1,448.30	$1,023.23	$1,585.96	$572.72
$1,028.32	$1,532.57	$1,600	$1,706.83	$1,495.67	$1,099.87	$1,661.60	$617.71
$1,269.31	$1,817.56	$1,700	$1,903.19	$1,717.18	$1,255.84	$1,911.42	$759.58
$1,303.32	$1,918.53	$1,800	$1,971.99	$1,751.33	$1,228.80	$2,010.77	$759.73
$1,406.41	$2,144.20	$1,900	$2,139.57	$1,930.97	$1,463.91	$2,446.70	$862.86
$1,473.13	$2,268.47	$2,000	$2,377.83	$2,147.71	$1,601.44	$2,558.04	$819.79
$2,101.62	$345,564.73	$100,100	$760,043.42	$114,149.68	$2,140.93	$1,198,054.91	$735.14
$1,842.12	$344,104.03	$100,200	$758,808.29	$114,045.67	$2,047.27	$1,196,076.89	$775.03
$1,842.71	$342,951.49	$100,300	$758,509.24	$113,579.04	$1,523.23	$1,193,420.01	$643.03
$1,649.31	$343,578.95	$100,400	$765,589.28	$116,946.47	$1,778.01	$1,200,500.06	$643.41
$1,675.72	$346,334.17	$100,500	$764,766.87	$119,480.65	$1,929.92	$1,203,079.33	$732.64
$1,758.88	$349,874.98	$100,600	$768,138.18	$122,283.89	$2,207.79	$1,207,627.18	$943.19
$1,756.17	$349,974.98	$100,700	$768,657.55	$120,776.90	$2,132.42	$1,208,209.95	$923.95
$1,625.41	$352,412.56	$100,800	$769,346.45	$122,506.86	$2,128.17	$1,213,759.43	$934.29
$1,580.64	$352,512.56	$100,900	$769,524.10	$122,383	$1,910.38	$1,213,937.08	$878.09
$1,390.19	$352,612.56	$101,000	$769,292.78	$119,896.34	$1,654.41	$1,214,037.08	$785.99

My agent purchases the product if it finds the expected return to be better than the expected loss. The expected return is equal to ($value-$price)*probOfGood, while the expected loss is equal to $price*(1-probOfGood).

My agent is the agent with the highest utility in each market condition. This is because its purchase function is ideal. The other agents perform less well, with the more aggressive agents faring even worse in unfavorable market conditions.