APPENDIX

Case 1: Standard error of American option price when $\overline{m}_3^{(i)} = 0$ and $\overline{m}_4^{(i)} = 3.0$, for i = 1, 2, 3.

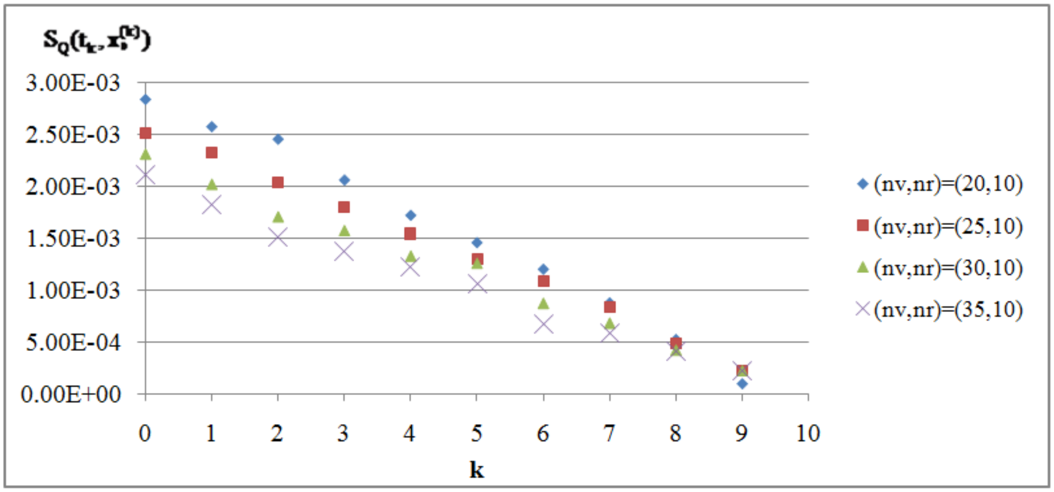

Figure A1: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_r is fixed but n_v is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3, a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0$ and $\overline{m}_4^{(i)} = 3.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

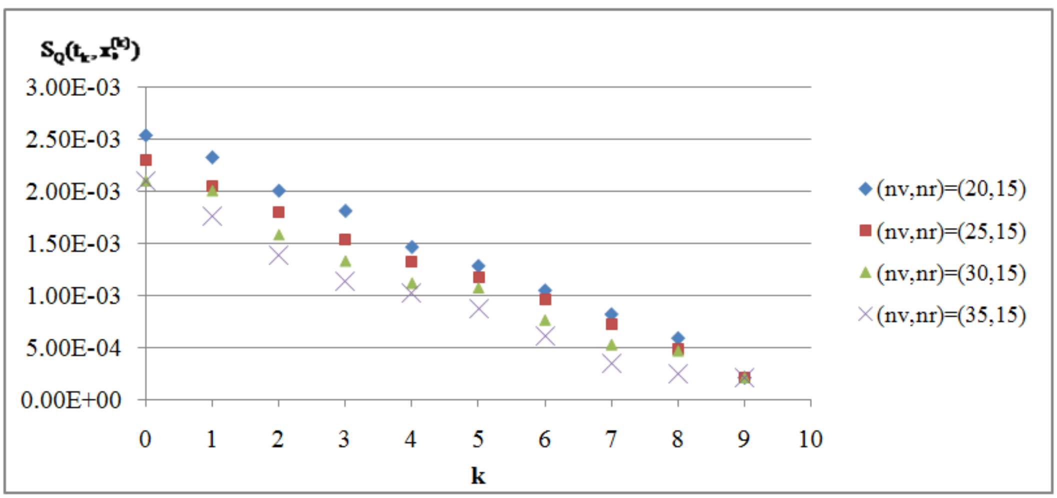

Figure A2: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_r is fixed but n_v is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3, a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0$ and $\overline{m}_4^{(i)} = 3.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

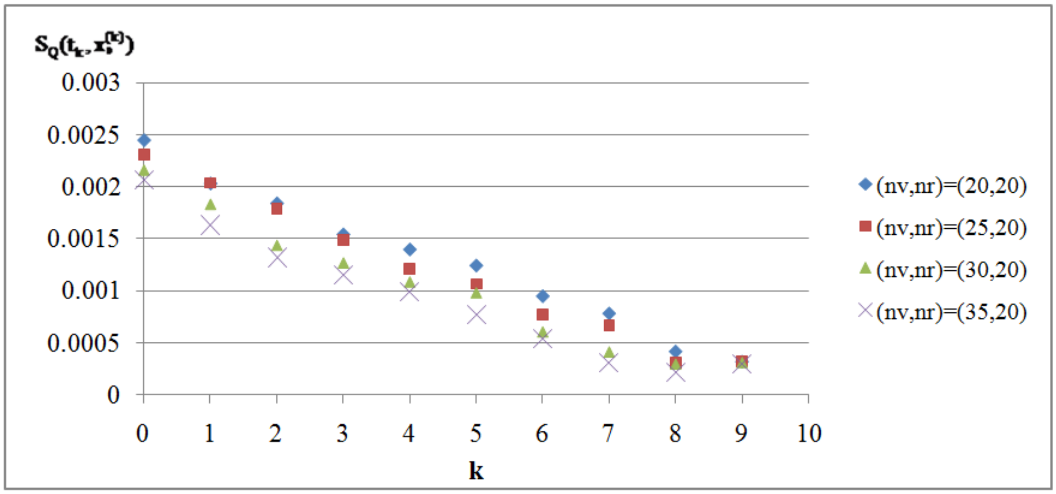

Figure A3: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_r is fixed but n_v is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3, a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0$ and $\overline{m}_4^{(i)} = 3.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

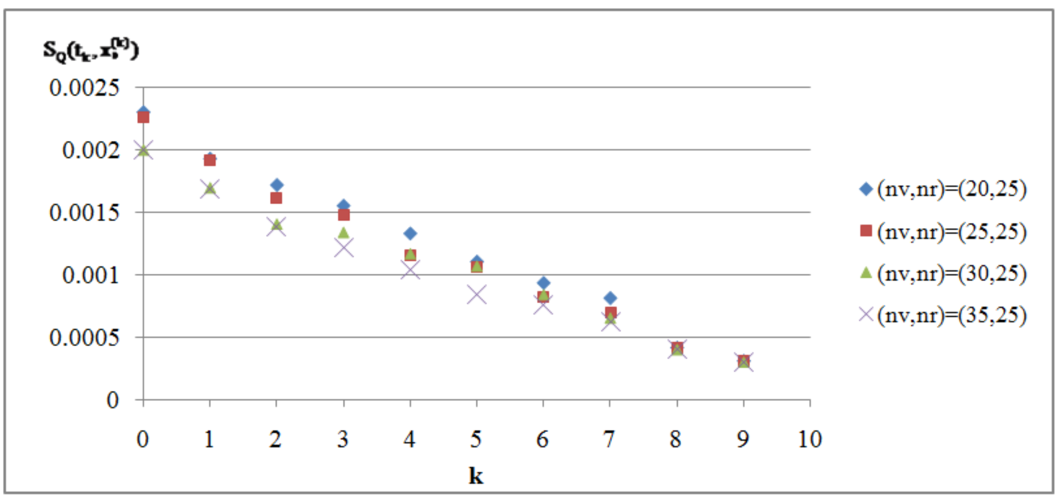

Figure A4: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_r is fixed but n_v is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3, a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0$ and $\overline{m}_4^{(i)} = 3.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

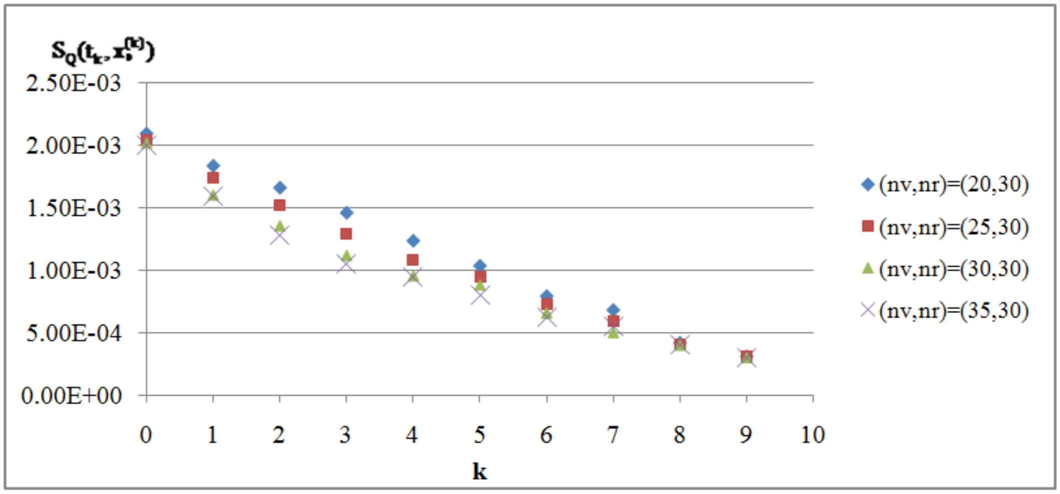

Figure A5: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_r is fixed but n_v is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3, a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0$ and $\overline{m}_4^{(i)} = 3.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

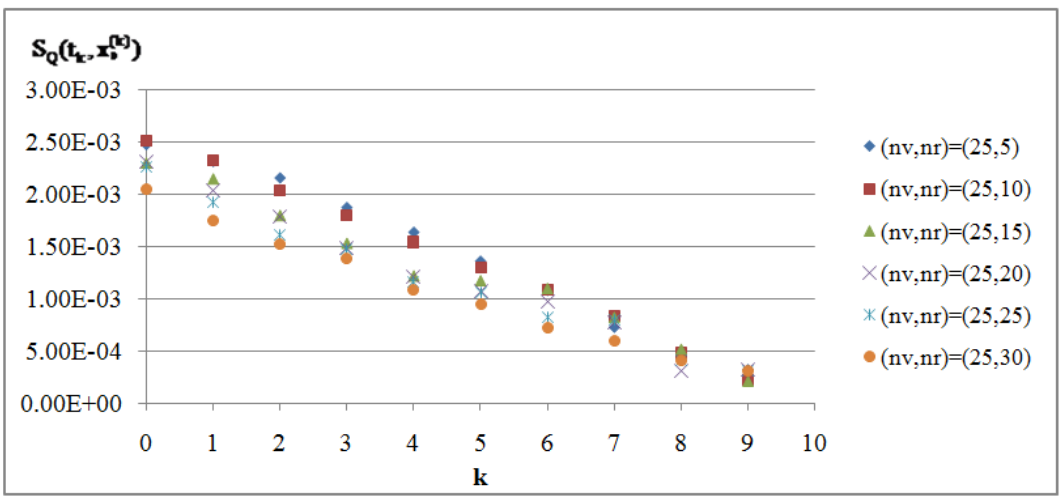

Figure A6: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_v is fixed but n_r is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0$ and $\overline{m}_4^{(i)} = 3.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

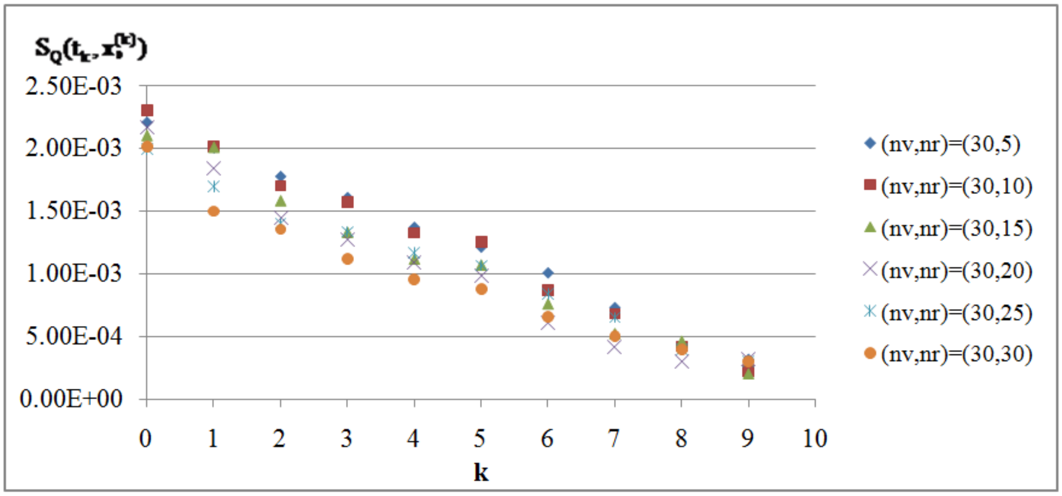

Figure A7: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_v is fixed but n_r is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0$ and $\overline{m}_4^{(i)} = 3.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

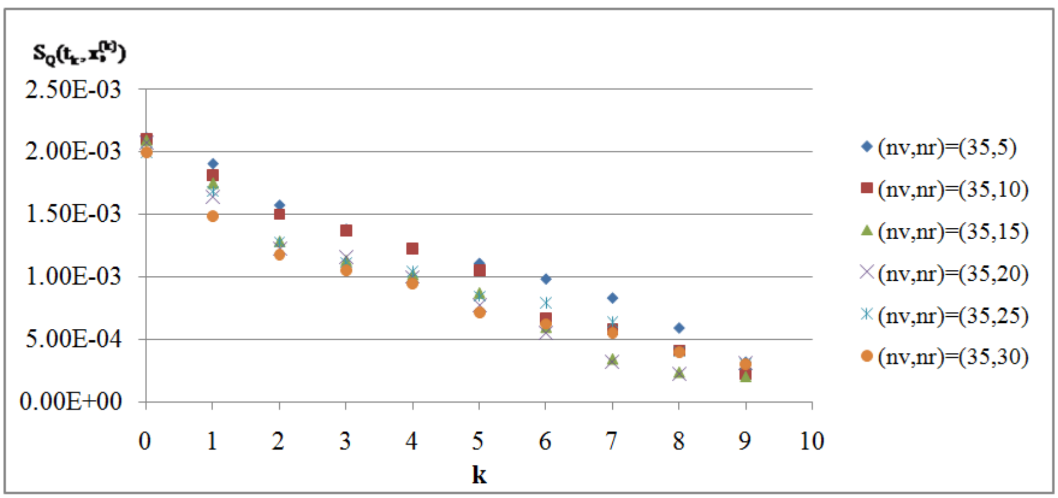

Figure A8: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_v is fixed but n_r is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0$ and $\overline{m}_4^{(i)} = 3.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

Case 2: Standard error of American option price when $\overline{m}_3^{(i)} = 0.1$ and $\overline{m}_4^{(i)} = 3.0$ for i =1, 2, 3

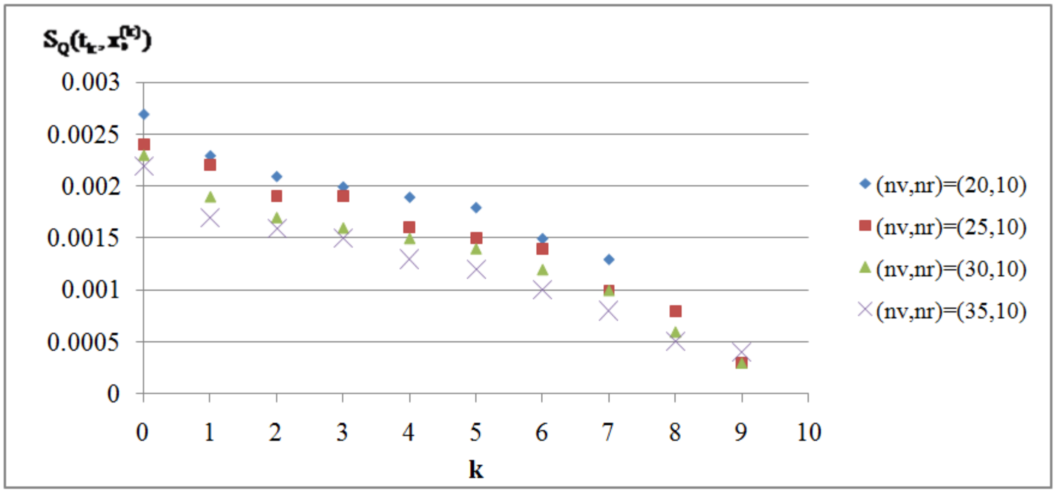

Figure A9: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_r is fixed but n_v is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0.1$ and $\overline{m}_4^{(i)} = 3.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

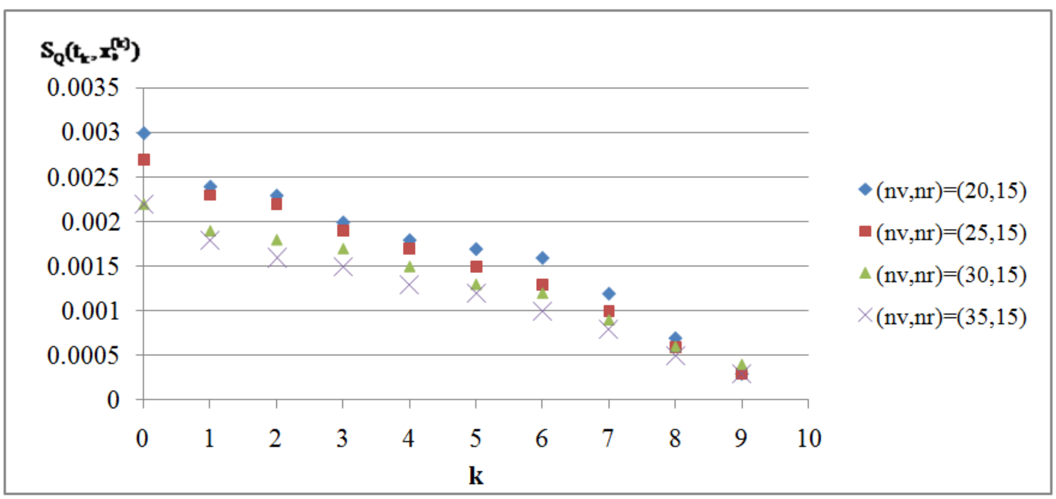

Figure A10: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_r is fixed but n_v is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0.1$ and $\overline{m}_4^{(i)} = 3.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

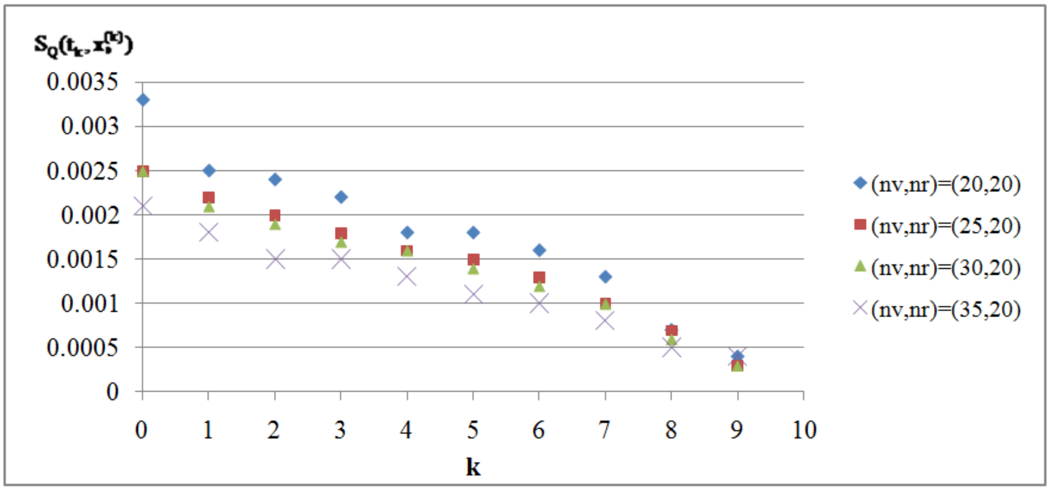

Figure A11: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_r is fixed but n_v is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0.1$ and $\overline{m}_4^{(i)} = 3.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

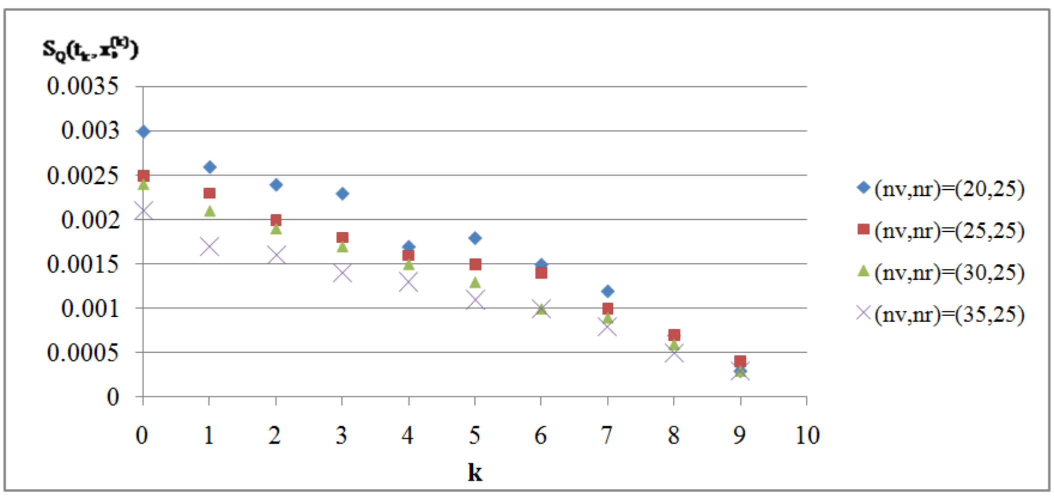

Figure A12: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_r is fixed but n_v is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0.1$ and $\overline{m}_4^{(i)} = 3.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

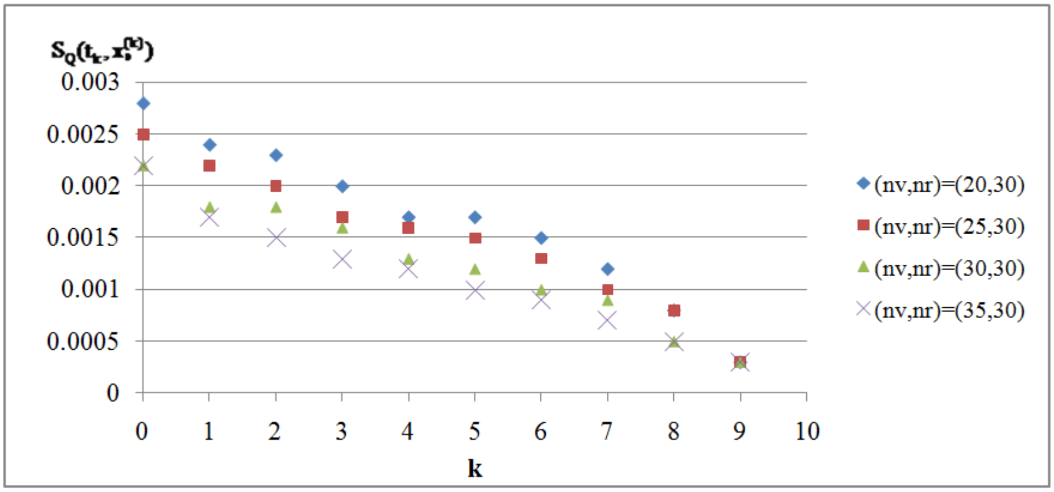

Figure A13: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_r is fixed but n_v is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0.1$ and $\overline{m}_4^{(i)} = 3.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

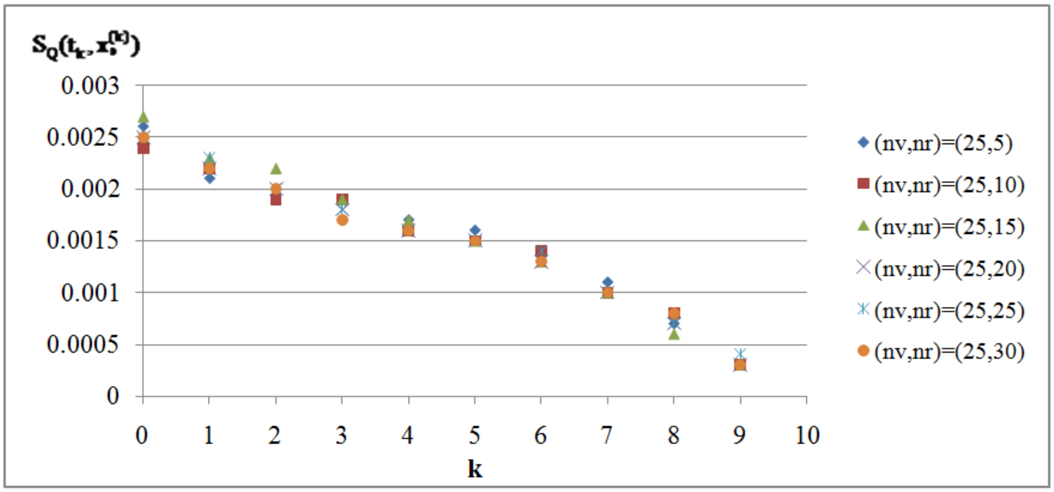

Figure A14: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_v is fixed but n_r is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0.1$ and $\overline{m}_4^{(i)} = 3.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

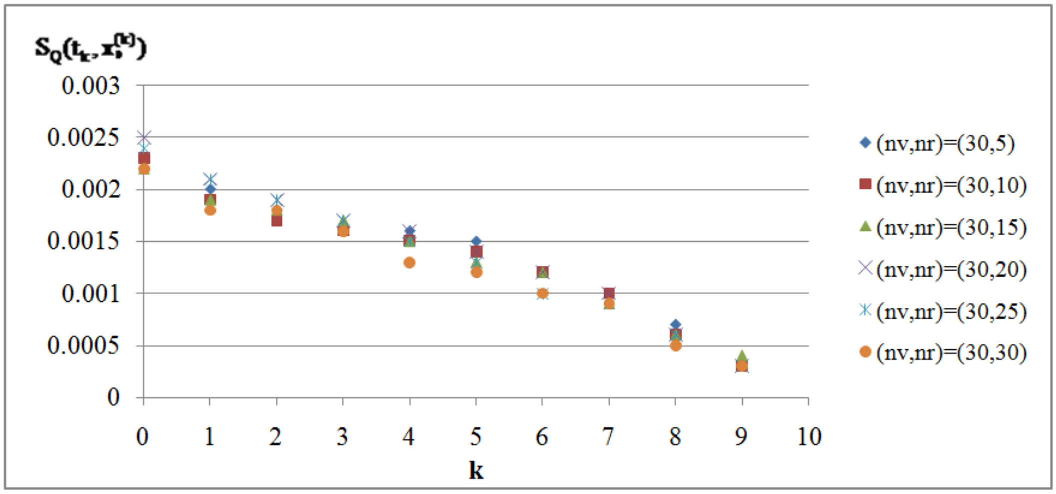

Figure A15: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_v is fixed but n_r is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0.1$ and $\overline{m}_4^{(i)} = 3.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

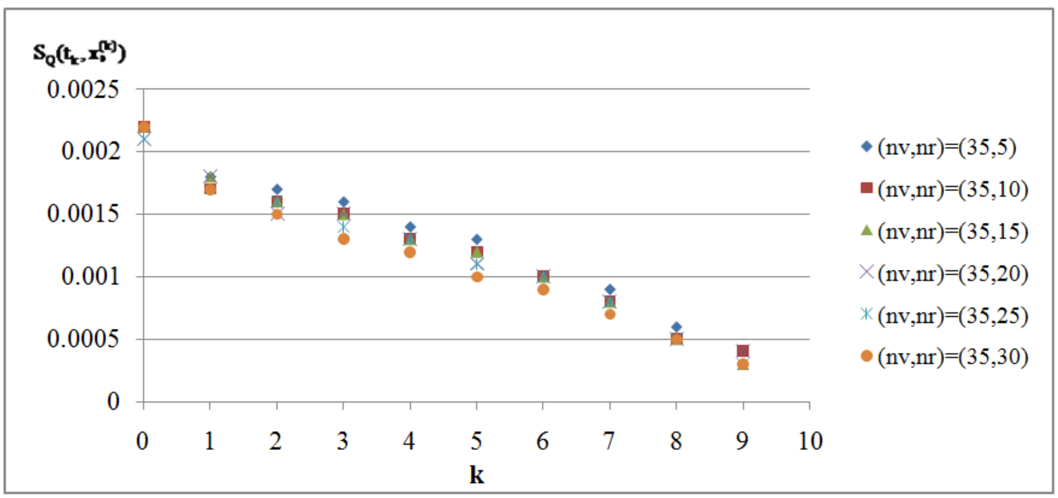

Figure A16: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_v is fixed but n_r is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0.1$ and $\overline{m}_4^{(i)} = 3.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

Case 3: Standard error of American option price when $\overline{m}_3^{(i)} = 0$ and $\overline{m}_4^{(i)} = 8.0$ for i=1,2,3

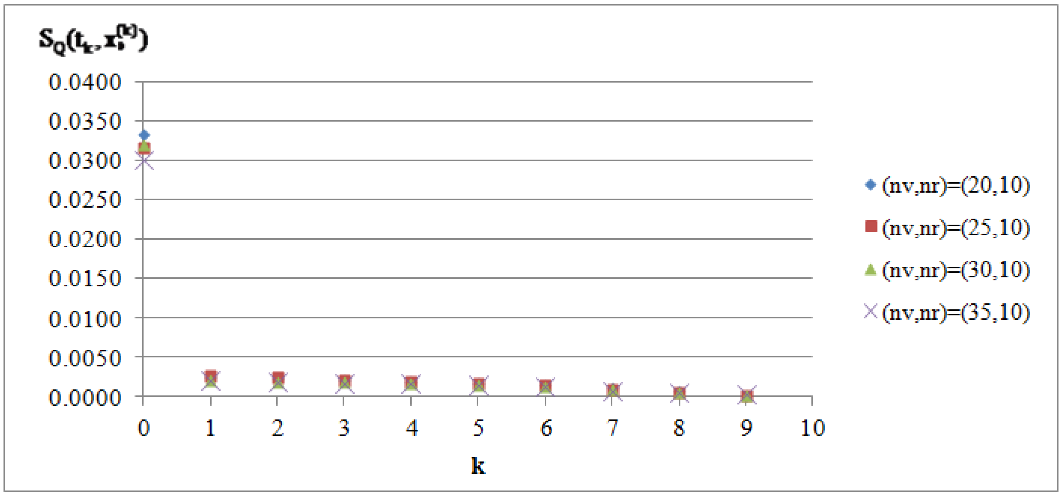

Figure A17: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_r is fixed but n_v is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0$ and $\overline{m}_4^{(i)} = 8.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

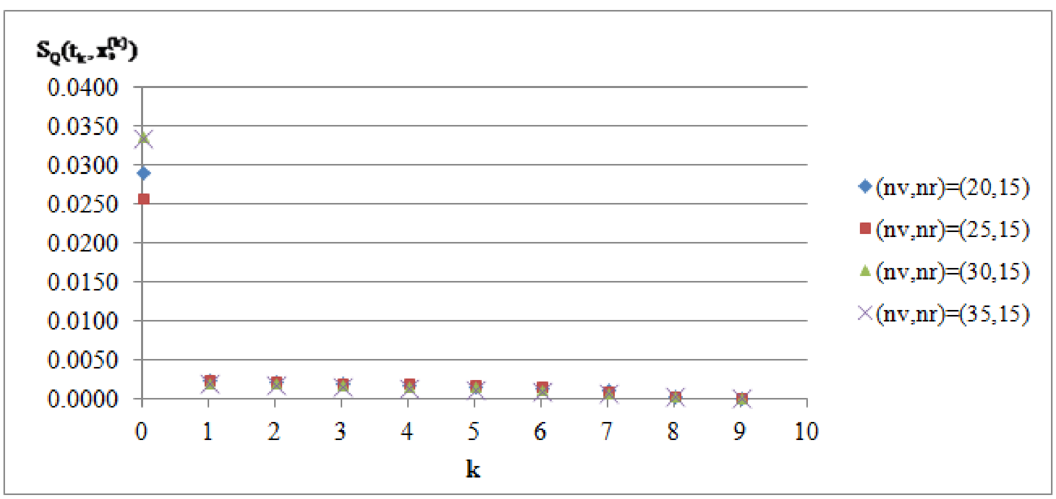

Figure A18: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_r is fixed but n_v is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0$ and $\overline{m}_4^{(i)} = 8.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

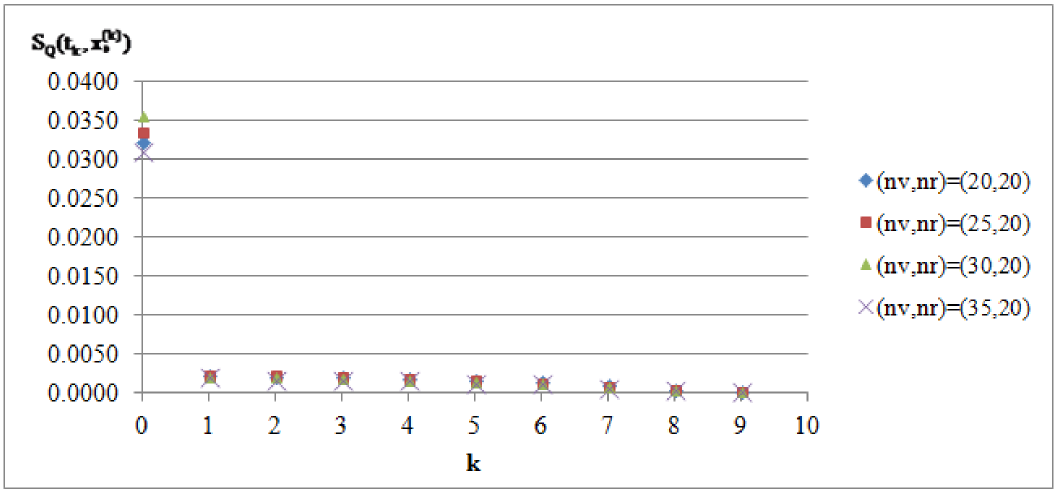

Figure A19: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_r is fixed but n_v is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0$ and $\overline{m}_4^{(i)} = 8.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

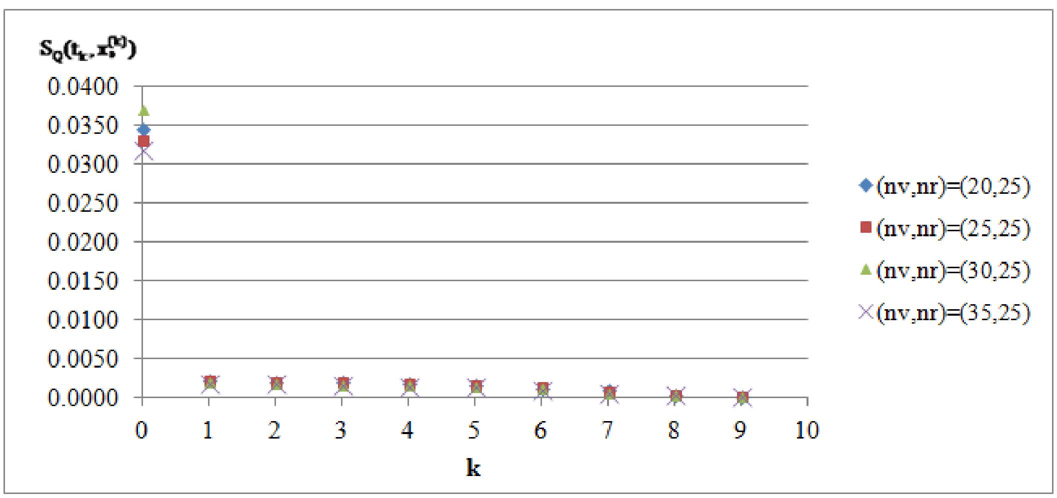

Figure A20: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_r is fixed but n_v is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0$ and $\overline{m}_4^{(i)} = 8.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

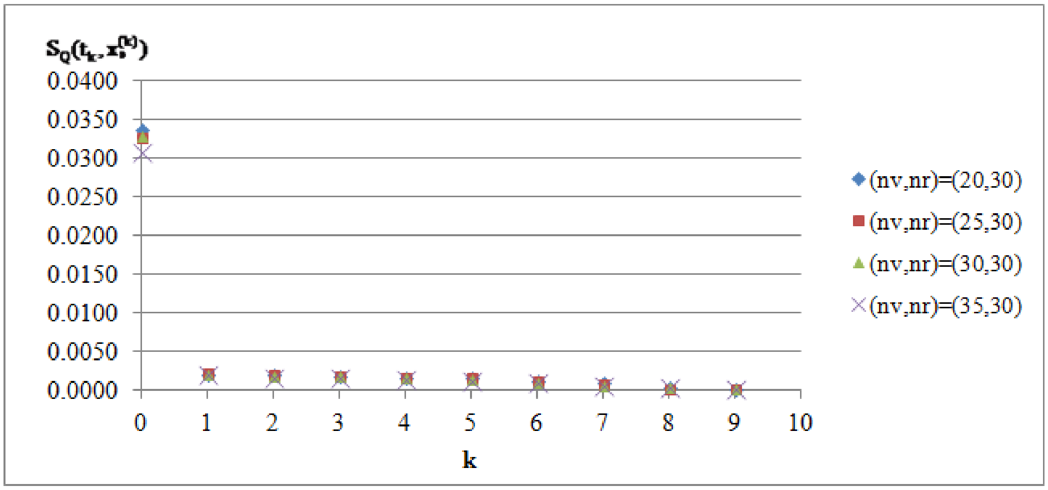

Figure A21: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_r is fixed but n_v is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0$ and $\overline{m}_4^{(i)} = 8.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

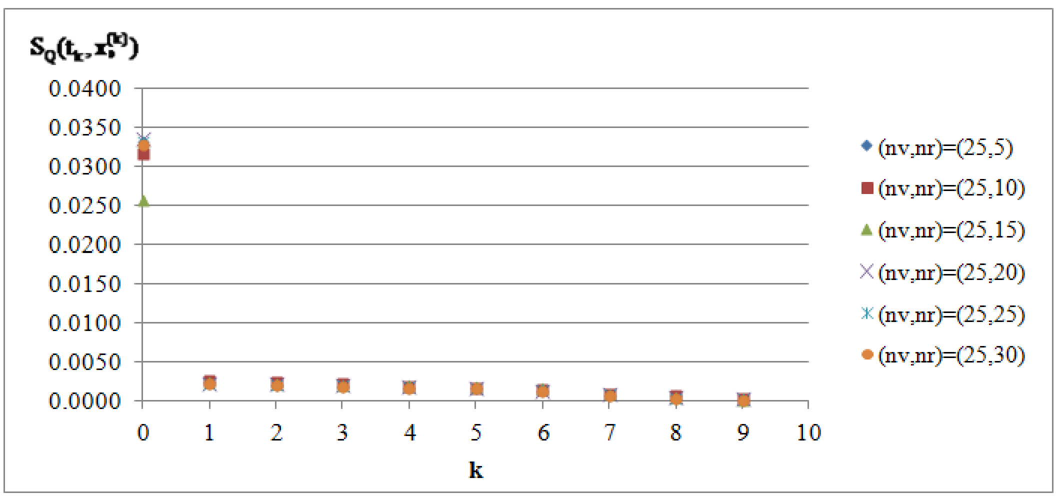

Figure A22: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_v is fixed but n_r is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0$ and $\overline{m}_4^{(i)} = 8.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

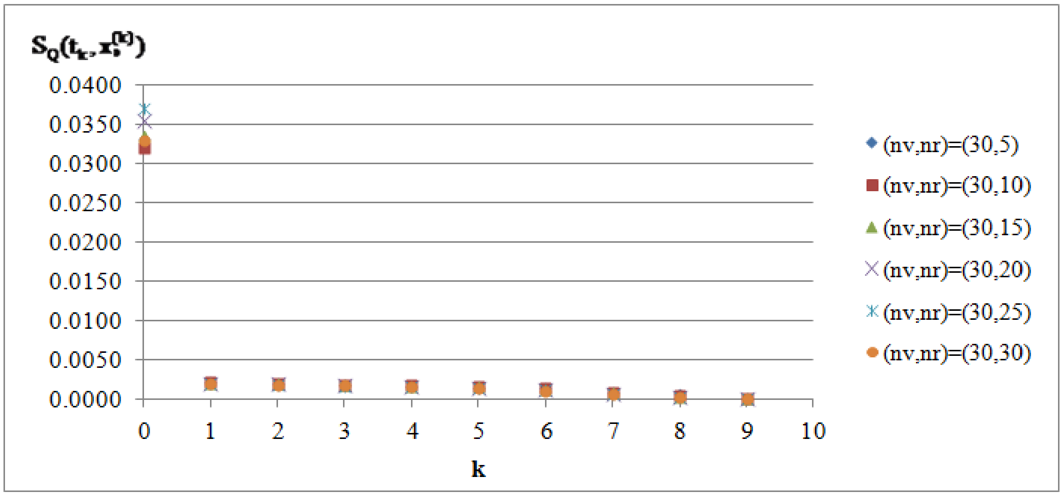

Figure A23: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_v is fixed but n_r is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0$ and $\overline{m}_4^{(i)} = 8.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

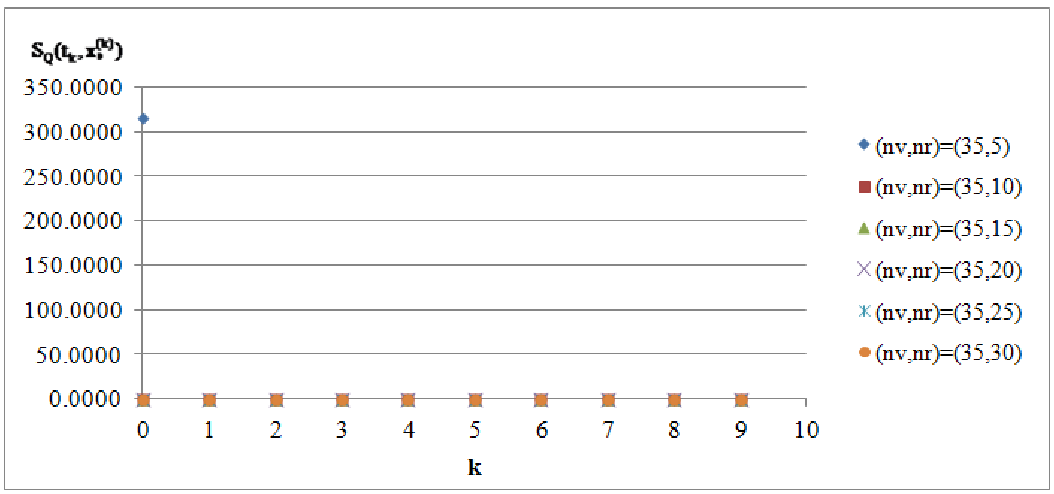

Figure A24: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_v is fixed but n_r is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(i)} = 0$ and $\overline{m}_4^{(i)} = 8.0$ for i=1, 2, 3, other parameters are as given in the beginning part of Section 5.3]

Case 4: Standard error of American option price when $\overline{m}_3^{(1)} = 0.1$, $\overline{m}_4^{(1)} = 5.0$, $\overline{m}_3^{(2)} = 0.2$, $\overline{m}_4^{(2)} = 4.0$, $\overline{m}_3^{(3)} = 0.2$ and $\overline{m}_4^{(3)} = 3.8$

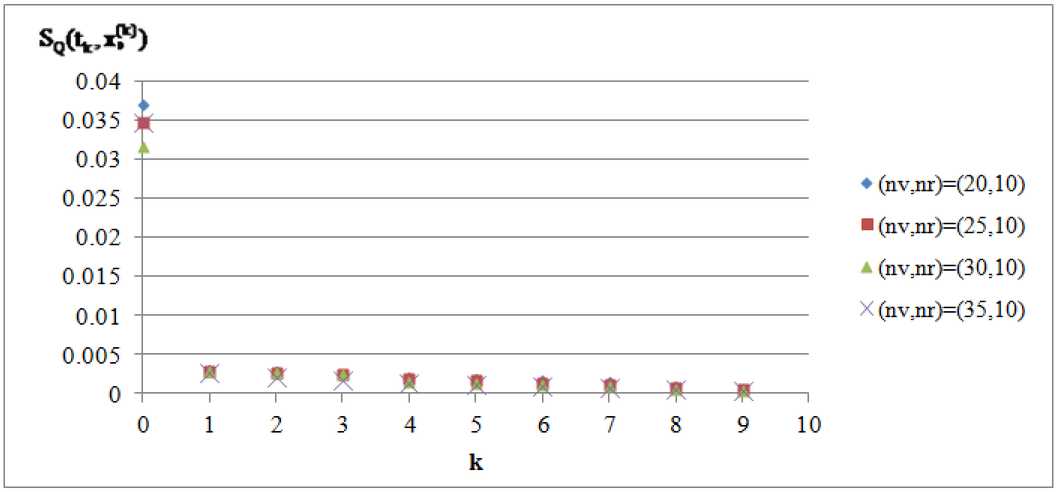

Figure A25: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_r is fixed but n_v is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(1)} = 0.1$, $\overline{m}_4^{(1)} = 5.0$, $\overline{m}_3^{(2)} = 0.2$, $\overline{m}_4^{(2)} = 4.0$, $\overline{m}_3^{(3)} = 0.2$ and $\overline{m}_4^{(3)} = 3.8$, other parameters are as given in the beginning part of Section 5.3]

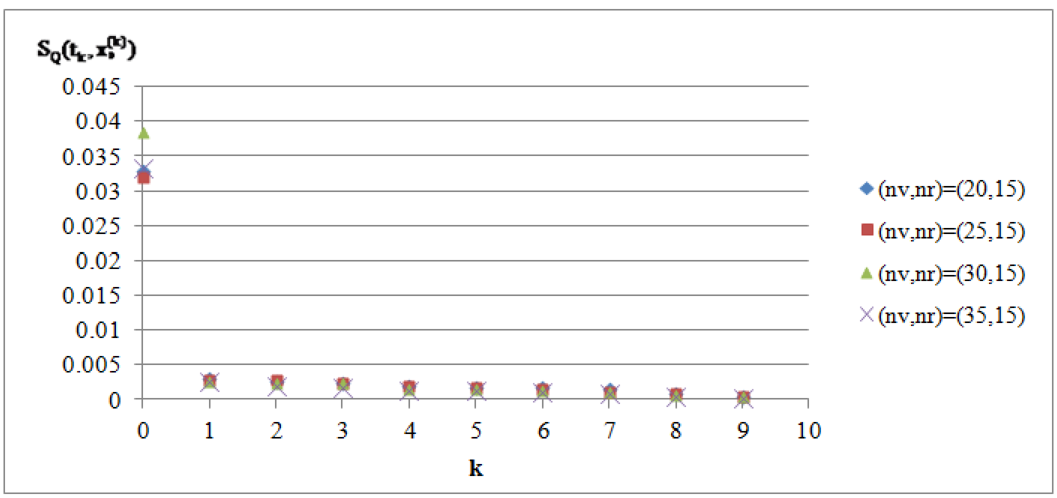

Figure A26: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_r is fixed but n_v is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(1)} = 0.1$, $\overline{m}_4^{(1)} = 5.0$, $\overline{m}_3^{(2)} = 0.2$, $\overline{m}_4^{(2)} = 4.0$, $\overline{m}_3^{(3)} = 0.2$ and $\overline{m}_4^{(3)} = 3.8$, other parameters are as given in the beginning part of Section 5.3]

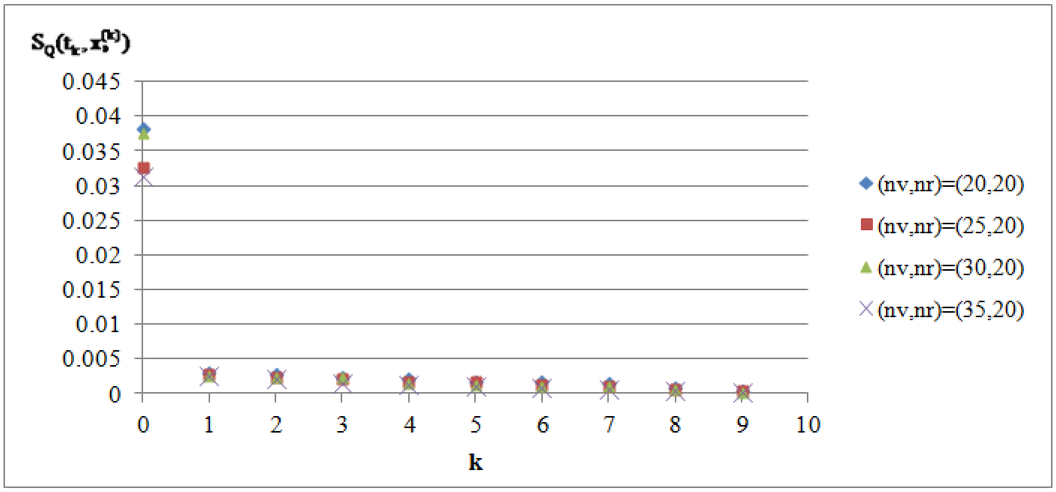

Figure A27: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_r is fixed but n_v is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(1)} = 0.1$, $\overline{m}_4^{(1)} = 5.0$, $\overline{m}_3^{(2)} = 0.2$, $\overline{m}_4^{(2)} = 4.0$, $\overline{m}_3^{(3)} = 0.2$ and $\overline{m}_4^{(3)} = 3.8$, other parameters are as given in the beginning part of Section 5.3]

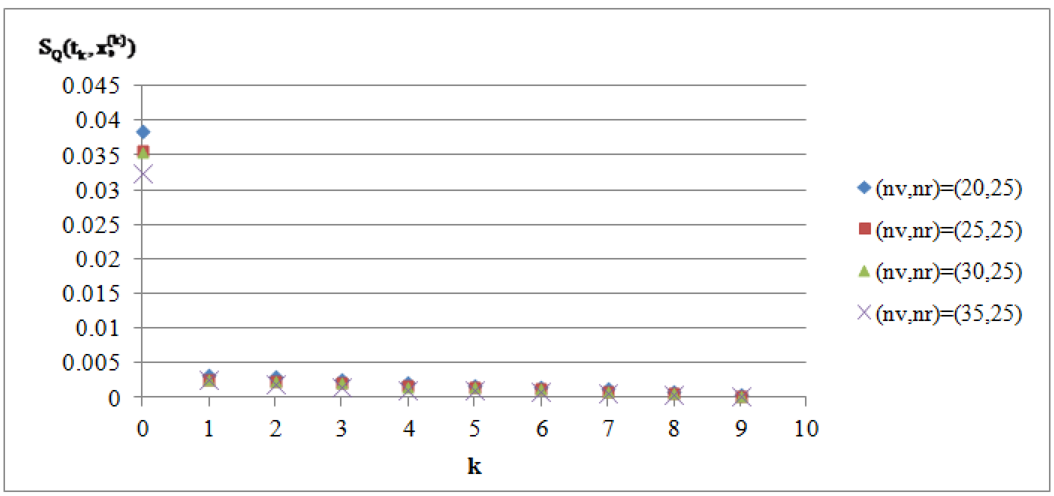

Figure A28: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_r is fixed but n_v is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(1)} = 0.1$, $\overline{m}_4^{(1)} = 5.0$, $\overline{m}_3^{(2)} = 0.2$, $\overline{m}_4^{(2)} = 4.0$, $\overline{m}_3^{(3)} = 0.2$ and $\overline{m}_4^{(3)} = 3.8$, other parameters are as given in the beginning part of Section 5.3]

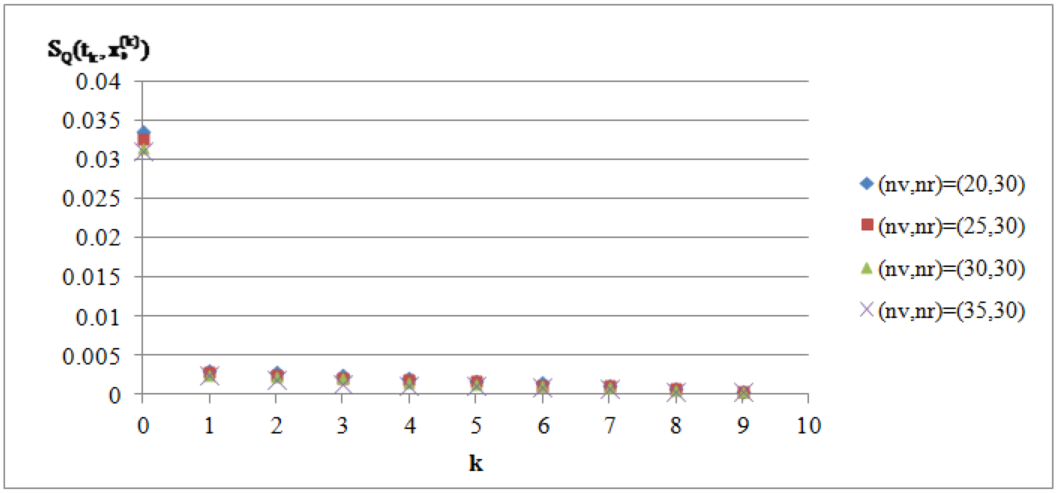

Figure A29: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_r is fixed but n_v is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(1)} = 0.1$, $\overline{m}_4^{(1)} = 5.0$, $\overline{m}_3^{(2)} = 0.2$, $\overline{m}_4^{(2)} = 4.0$, $\overline{m}_3^{(3)} = 0.2$ and $\overline{m}_4^{(3)} = 3.8$, other parameters are as given in the beginning part of Section 5.3]

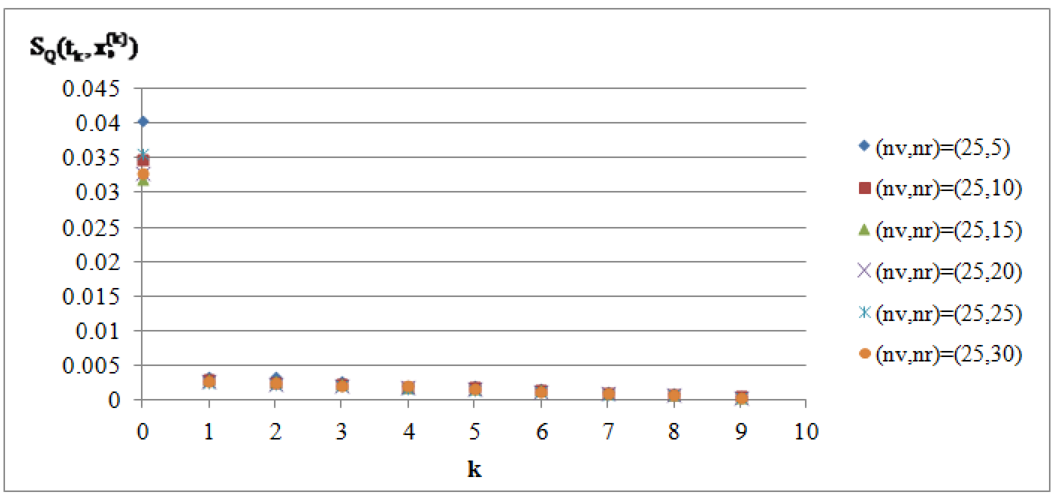

Figure A30: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_v is fixed but n_r is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(1)} = 0.1$, $\overline{m}_4^{(1)} = 5.0$, $\overline{m}_3^{(2)} = 0.2$, $\overline{m}_4^{(2)} = 4.0$, $\overline{m}_3^{(3)} = 0.2$ and $\overline{m}_4^{(3)} = 3.8$, other parameters are as given in the beginning part of Section 5.3]

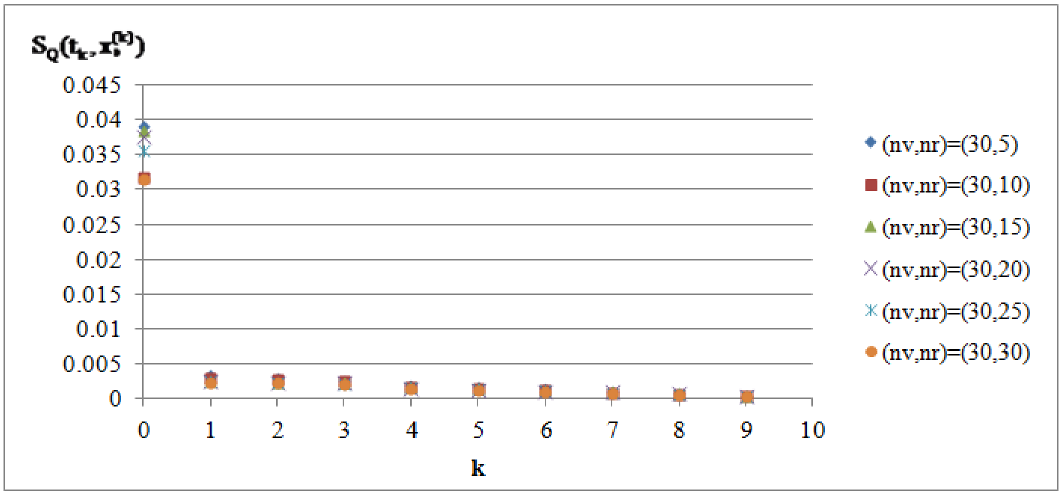

Figure A31: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_v is fixed but n_r is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(1)} = 0.1$, $\overline{m}_4^{(1)} = 5.0$, $\overline{m}_3^{(2)} = 0.2$, $\overline{m}_4^{(2)} = 4.0$, $\overline{m}_3^{(3)} = 0.2$ and $\overline{m}_4^{(3)} = 3.8$, other parameters are as given in the beginning part of Section 5.3]

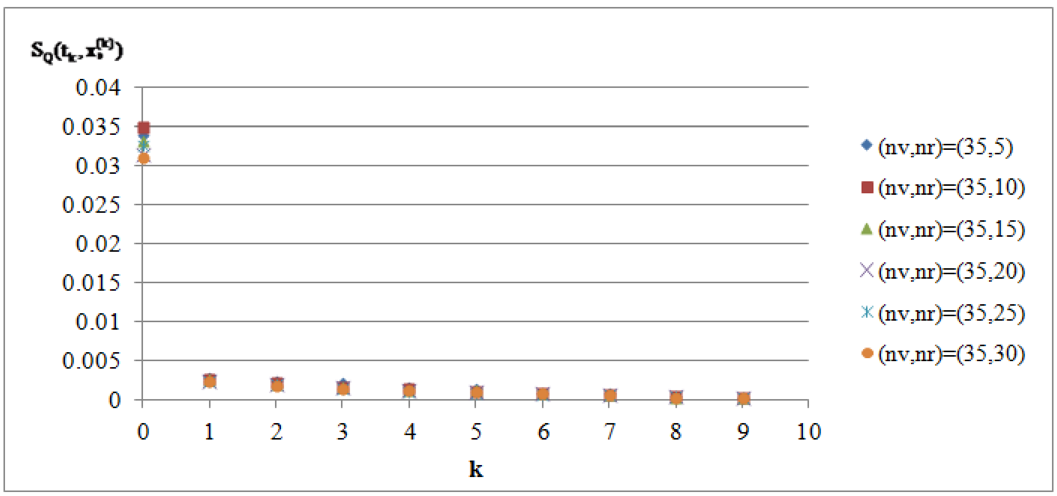

Figure A32: The values of $S_Q(t_k, \mathbf{x}_0^{(k)})$ when n_v is fixed but n_r is varied

[Number of underlying assets is 3, k*=10, exercise dates are 1/365, 2/365,…, 10/365, r=0.05, K=46, $a_1 = 0.3$, $a_2 = 0.3$, $a_3 = 0.4$, $\overline{m}_3^{(1)} = 0.1$, $\overline{m}_4^{(1)} = 5.0$, $\overline{m}_3^{(2)} = 0.2$, $\overline{m}_4^{(2)} = 4.0$, $\overline{m}_3^{(3)} = 0.2$ and $\overline{m}_4^{(3)} = 3.8$, other parameters are as given in the beginning part of Section 5.3]