

APPENDICES

APPENDIX A

Range, maximum, and minimum value for each age group in different periods of simulation for Figure 6.6 – Base Case model

A.1 - Average Housing-to-Wealth Ratio

Age group	Range		Max		Min	
	NEGATIVE shock	POSITIVE shock	NEGATIVE shock	POSITIVE shock	NEGATIVE shock	POSITIVE shock
21-26	0.09	0.13	1.93	1.85	1.85	1.72
27-32	0.31	0.36	3.20	3.11	2.90	2.75
33-38	0.24	0.28	3.26	3.11	3.02	2.83
39-44	0.38	0.34	3.39	3.08	3.01	2.74
45-50	0.40	0.38	2.78	2.52	2.38	2.14
51-56	0.08	0.07	0.64	0.58	0.56	0.51
57-62	0.01	0.01	0.16	0.15	0.15	0.15
63-68	0.01	0.01	0.13	0.13	0.12	0.11
69-74	0.01	0.02	0.17	0.17	0.16	0.15
75-80	0.03	0.04	0.47	0.46	0.43	0.42

A.2 - Average Holding of Housing Capital

Age group	Range		Max		Min	
	NEGATIVE shock	POSITIVE shock	NEGATIVE shock	POSITIVE shock	NEGATIVE shock	POSITIVE shock
21-26	0.04	0.04	0.22	0.23	0.18	0.19
27-32	0.05	0.05	0.39	0.40	0.34	0.35
33-38	0.08	0.07	0.46	0.47	0.38	0.39
39-44	0.12	0.11	0.55	0.56	0.43	0.45
45-50	0.12	0.12	0.64	0.65	0.52	0.53
51-56	0.13	0.13	0.70	0.71	0.58	0.58
57-62	0.14	0.14	0.68	0.68	0.55	0.55
63-68	0.13	0.13	0.62	0.62	0.49	0.49
69-74	0.10	0.11	0.55	0.55	0.45	0.44
75-80	0.07	0.07	0.45	0.45	0.38	0.38

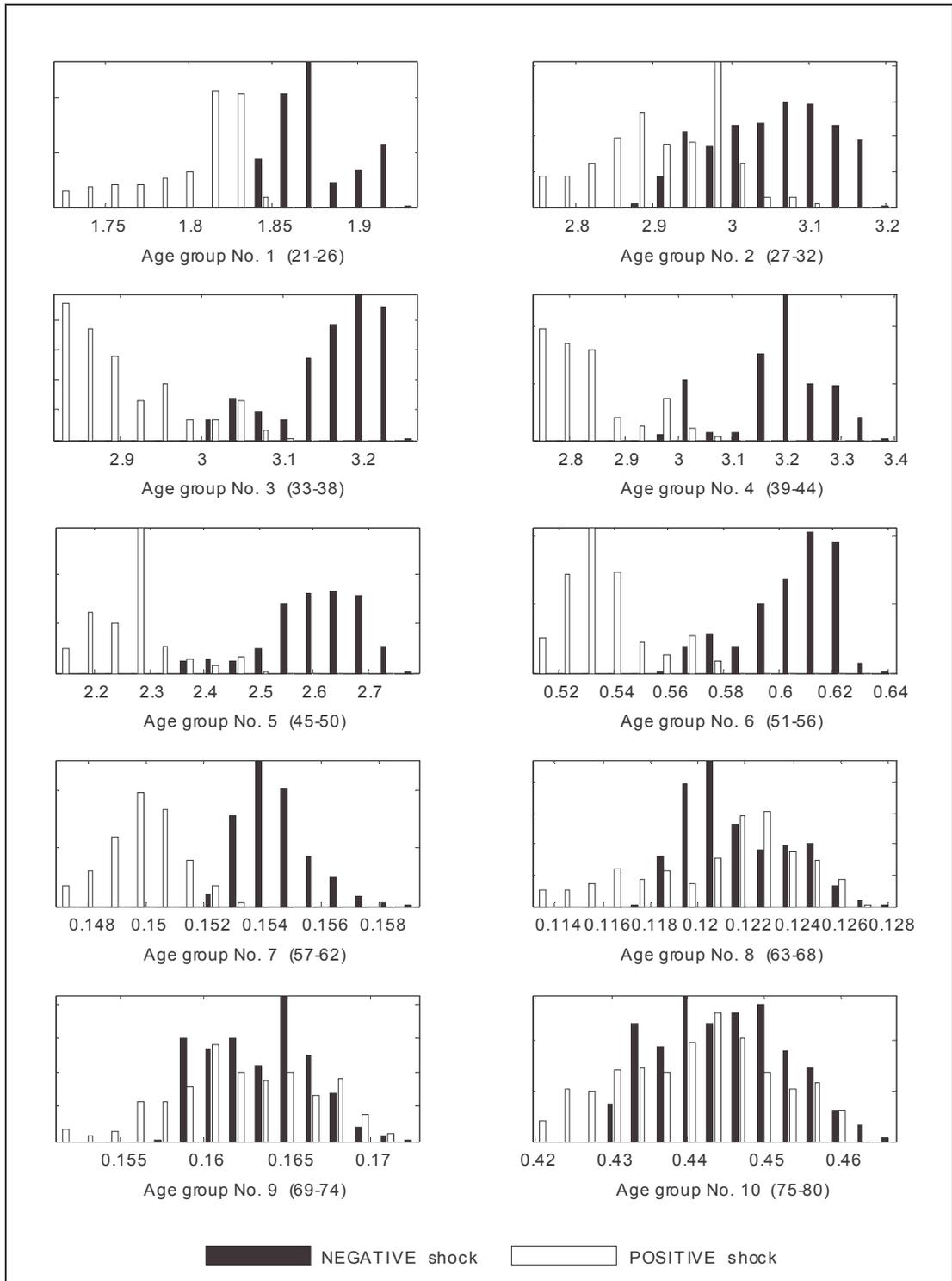
A.3 - Average Holding of Business Capital

Age group	Range		Max		Min	
	NEGATIVE shock	POSITIVE shock	NEGATIVE shock	POSITIVE shock	NEGATIVE shock	POSITIVE shock
21-26	0.02	0.02	-0.09	-0.09	-0.11	-0.11
27-32	0.04	0.04	-0.22	-0.22	-0.26	-0.26
33-38	0.05	0.04	-0.26	-0.25	-0.30	-0.29
39-44	0.08	0.07	-0.29	-0.28	-0.36	-0.35
45-50	0.06	0.06	-0.19	-0.15	-0.25	-0.21
51-56	0.33	0.33	1.48	1.58	1.16	1.25
57-62	0.63	0.65	4.10	4.24	3.46	3.59
63-68	0.54	0.53	4.26	4.36	3.72	3.83
69-74	0.26	0.25	2.70	2.76	2.44	2.50
75-80	0.05	0.05	0.82	0.85	0.78	0.80

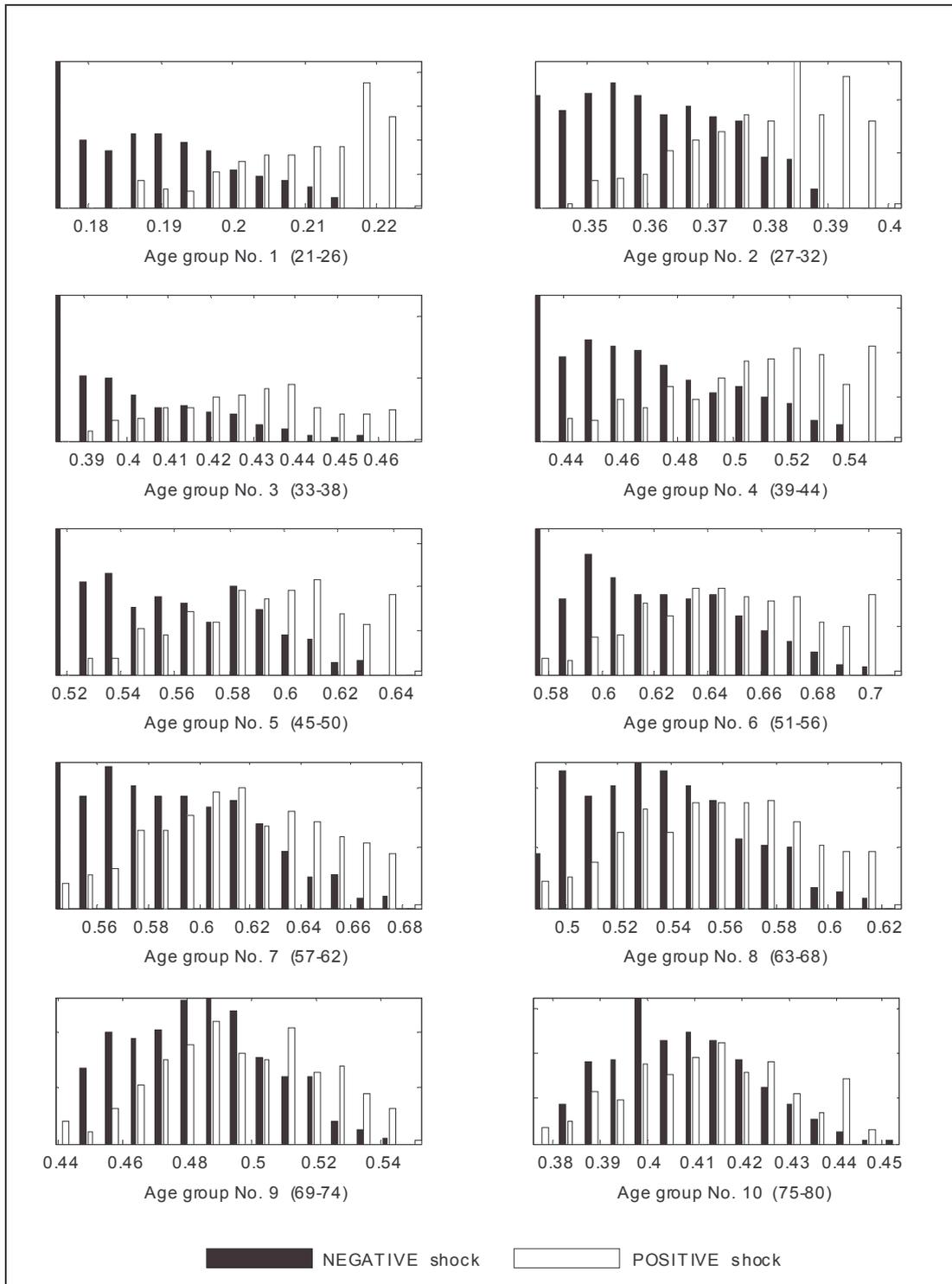
APPENDIX B

Histogram for each age group in different periods of simulation
for Figure 6.6 – Base Case model

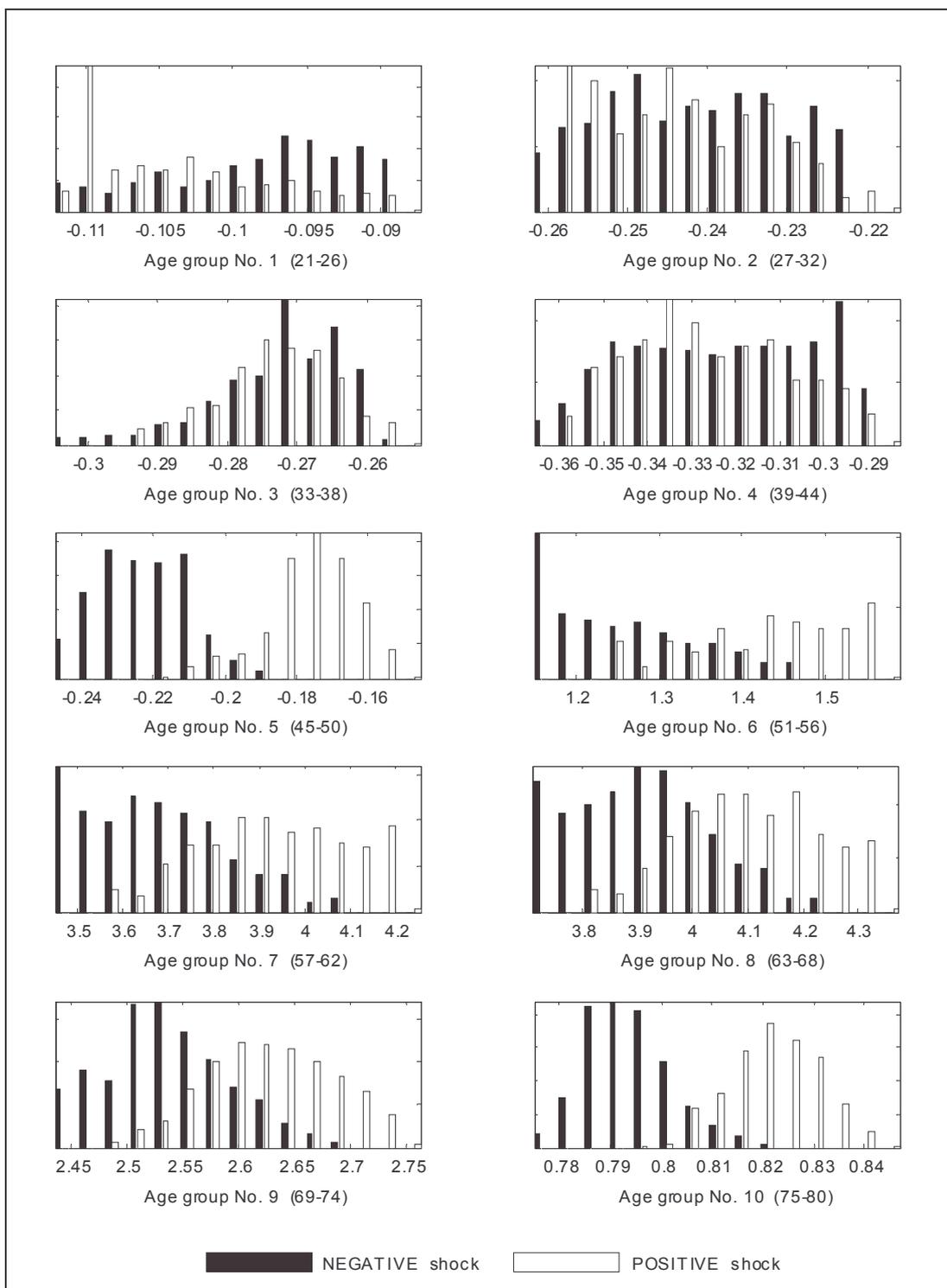
B.1 - Average Housing-to-Wealth Ratio



B.2 - Average Holding of Housing Capital



B.3 - Average Holding of Business Capital



APPENDIX C

Range, maximum, and minimum value for each age group in different periods of simulation for Figure 6.7 – Model without borrowing
(Base case model shown in parenthesis)

C.1 - Average Housing-to-Wealth Ratio

Age group	Range		Max		Min	
	NEGATIVE shock	POSITIVE shock	NEGATIVE shock	POSITIVE shock	NEGATIVE shock	POSITIVE shock
21-26	0.00 (0.09)	0.00 (0.13)	1.00 (1.93)	1.00 (1.85)	1.00 (1.85)	1.00 (1.72)
27-32	0.00 (0.31)	0.00 (0.36)	1.00 (3.20)	1.00 (3.11)	1.00 (2.90)	1.00 (2.75)
33-38	0.00 (0.24)	0.00 (0.28)	1.00 (3.26)	1.00 (3.11)	1.00 (3.02)	1.00 (2.83)
39-44	0.00 (0.38)	0.00 (0.34)	1.00 (3.39)	1.00 (3.08)	1.00 (3.01)	1.00 (2.74)
45-50	0.01 (0.40)	0.01 (0.38)	0.97 (2.78)	0.95 (2.52)	0.96 (2.38)	0.94 (2.14)
51-56	0.03 (0.08)	0.03 (0.07)	0.51 (0.64)	0.49 (0.58)	0.48 (0.56)	0.46 (0.51)
57-62	0.01 (0.01)	0.01 (0.01)	0.17 (0.16)	0.16 (0.15)	0.16 (0.15)	0.16 (0.15)
63-68	0.01 (0.01)	0.01 (0.01)	0.14 (0.13)	0.13 (0.13)	0.12 (0.12)	0.12 (0.11)
69-74	0.01 (0.01)	0.02 (0.02)	0.18 (0.17)	0.18 (0.17)	0.17 (0.16)	0.16 (0.15)
75-80	0.03 (0.03)	0.04 (0.04)	0.47 (0.47)	0.47 (0.46)	0.45 (0.43)	0.44 (0.42)

C.2 - Average Holding of Housing Capital

Age group	Range		Max		Min	
	NEGATIVE shock	POSITIVE shock	NEGATIVE shock	POSITIVE shock	NEGATIVE shock	POSITIVE shock
21-26	0.02 (0.04)	0.03 (0.04)	0.17 (0.22)	0.18 (0.23)	0.15 (0.18)	0.16 (0.19)
27-32	0.07 (0.05)	0.06 (0.05)	0.36 (0.39)	0.38 (0.40)	0.30 (0.34)	0.32 (0.35)
33-38	0.08 (0.08)	0.08 (0.07)	0.44 (0.46)	0.46 (0.47)	0.36 (0.38)	0.38 (0.39)
39-44	0.09 (0.12)	0.09 (0.11)	0.50 (0.55)	0.52 (0.56)	0.41 (0.43)	0.43 (0.45)
45-50	0.11 (0.12)	0.11 (0.12)	0.62 (0.64)	0.64 (0.65)	0.51 (0.52)	0.53 (0.53)
51-56	0.14 (0.13)	0.14 (0.13)	0.76 (0.70)	0.77 (0.71)	0.63 (0.58)	0.64 (0.58)
57-62	0.14 (0.14)	0.14 (0.14)	0.72 (0.68)	0.72 (0.68)	0.58 (0.55)	0.58 (0.55)
63-68	0.13 (0.13)	0.13 (0.13)	0.63 (0.62)	0.63 (0.62)	0.50 (0.49)	0.50 (0.49)
69-74	0.11 (0.10)	0.11 (0.11)	0.54 (0.55)	0.54 (0.55)	0.44 (0.45)	0.43 (0.44)
75-80	0.07 (0.07)	0.07 (0.07)	0.42 (0.45)	0.43 (0.45)	0.36 (0.38)	0.35 (0.38)

C.3 - Average Holding of Business Capital

Age group	Range		Max		Min	
	NEGATIVE shock	POSITIVE shock	NEGATIVE shock	POSITIVE shock	NEGATIVE shock	POSITIVE shock
21-26	0.00 (0.02)	0.00 (0.02)	0.00 -(0.09)	0.00 -(0.09)	0.00 -(0.11)	0.00 -(0.11)
27-32	0.00 (0.04)	0.00 (0.04)	0.00 -(0.22)	0.00 -(0.22)	0.00 -(0.26)	0.00 -(0.26)
33-38	0.00 (0.05)	0.00 (0.04)	0.00 -(0.26)	0.00 -(0.25)	0.00 -(0.30)	0.00 -(0.29)
39-44	0.00 (0.08)	0.00 (0.07)	0.00 -(0.29)	0.00 -(0.28)	0.00 -(0.36)	0.00 -(0.35)
45-50	0.02 (0.06)	0.02 (0.06)	0.07 -(0.19)	0.10 -(0.15)	0.05 -(0.25)	0.07 -(0.21)
51-56	0.27 (0.33)	0.28 (0.33)	1.46 (1.48)	1.56 (1.58)	1.19 (1.16)	1.28 (1.25)
57-62	0.57 (0.63)	0.59 (0.65)	3.96 (4.10)	4.10 (4.24)	3.38 (3.46)	3.51 (3.59)
63-68	0.51 (0.54)	0.51 (0.53)	4.09 (4.26)	4.19 (4.36)	3.58 (3.72)	3.68 (3.83)
69-74	0.25 (0.26)	0.25 (0.25)	2.51 (2.70)	2.57 (2.76)	2.26 (2.44)	2.32 (2.50)
75-80	0.04 (0.05)	0.05 (0.05)	0.73 (0.82)	0.75 (0.85)	0.69 (0.78)	0.71 (0.80)

APPENDIX D

Range, maximum, and minimum value for each age group in different periods of simulation for Figure 6.9 – Model with large productivity shock
(Base case model shown in parenthesis)

D.1 - Average Housing-to-Wealth Ratio

Age group	Range		Max		Min	
	NEGATIVE shock	POSITIVE shock	NEGATIVE shock	POSITIVE shock	NEGATIVE shock	POSITIVE shock
21-26	0.28 (0.09)	0.29 (0.13)	2.06 (1.93)	1.85 (1.85)	1.78 (1.85)	1.56 (1.72)
27-32	0.91 (0.31)	0.81 (0.36)	3.60 (3.20)	2.92 (3.11)	2.69 (2.90)	2.11 (2.75)
33-38	1.28 (0.24)	0.75 (0.28)	4.01 (3.26)	2.87 (3.11)	2.74 (3.02)	2.12 (2.83)
39-44	1.48 (0.38)	0.80 (0.34)	4.21 (3.39)	2.92 (3.08)	2.73 (3.01)	2.12 (2.74)
45-50	8.38 (0.40)	0.66 (0.38)	5.41 (2.78)	2.37 (2.52)	-2.97 (2.38)	1.71 (2.14)
51-56	0.29 (0.08)	0.17 (0.07)	0.82 (0.64)	0.59 (0.58)	0.53 (0.56)	0.42 (0.51)
57-62	0.02 (0.01)	0.02 (0.01)	0.17 (0.16)	0.16 (0.15)	0.15 (0.15)	0.14 (0.15)
63-68	0.04 (0.01)	0.03 (0.01)	0.15 (0.13)	0.14 (0.13)	0.11 (0.12)	0.10 (0.11)
69-74	0.05 (0.01)	0.05 (0.02)	0.20 (0.17)	0.18 (0.17)	0.15 (0.16)	0.13 (0.15)
75-80	0.09 (0.03)	0.11 (0.04)	0.50 (0.47)	0.48 (0.46)	0.41 (0.43)	0.37 (0.42)

D.2 - Average Holding of Housing Capital

Age group	Range		Max		Min	
	NEGATIVE shock	POSITIVE shock	NEGATIVE shock	POSITIVE shock	NEGATIVE shock	POSITIVE shock
21-26	0.11 (0.04)	0.11 (0.04)	0.25 (0.22)	0.28 (0.23)	0.14 (0.18)	0.17 (0.19)
27-32	0.25 (0.05)	0.24 (0.05)	0.50 (0.39)	0.53 (0.40)	0.25 (0.34)	0.29 (0.35)
33-38	0.30 (0.08)	0.30 (0.07)	0.61 (0.46)	0.64 (0.47)	0.31 (0.38)	0.34 (0.39)
39-44	0.36 (0.12)	0.35 (0.11)	0.71 (0.55)	0.74 (0.56)	0.36 (0.43)	0.39 (0.45)
45-50	0.39 (0.12)	0.38 (0.12)	0.80 (0.64)	0.83 (0.65)	0.41 (0.52)	0.45 (0.53)
51-56	0.43 (0.13)	0.43 (0.13)	0.88 (0.70)	0.90 (0.71)	0.45 (0.58)	0.48 (0.58)
57-62	0.46 (0.14)	0.45 (0.14)	0.88 (0.68)	0.89 (0.68)	0.42 (0.55)	0.44 (0.55)
63-68	0.44 (0.13)	0.42 (0.13)	0.81 (0.62)	0.81 (0.62)	0.38 (0.49)	0.38 (0.49)
69-74	0.35 (0.10)	0.34 (0.11)	0.70 (0.55)	0.69 (0.55)	0.35 (0.45)	0.35 (0.44)
75-80	0.22 (0.07)	0.22 (0.07)	0.54 (0.45)	0.53 (0.45)	0.32 (0.38)	0.31 (0.38)

D.3 - Average Holding of Business Capital

Age group	Range		Max		Min	
	NEGATIVE shock	POSITIVE shock	NEGATIVE shock	POSITIVE shock	NEGATIVE shock	POSITIVE shock
21-26	0.07 (0.02)	0.07 (0.02)	-0.07 -(0.09)	-0.07 -(0.09)	-0.14 -(0.11)	-0.13 -(0.11)
27-32	0.16 (0.04)	0.13 (0.04)	-0.16 -(0.22)	-0.15 -(0.22)	-0.32 -(0.26)	-0.28 -(0.26)
33-38	0.17 (0.05)	0.13 (0.04)	-0.20 -(0.26)	-0.19 -(0.25)	-0.37 -(0.30)	-0.32 -(0.29)
39-44	0.20 (0.08)	0.15 (0.07)	-0.24 -(0.29)	-0.22 -(0.28)	-0.44 -(0.36)	-0.37 -(0.35)
45-50	0.16 (0.06)	0.20 (0.06)	-0.14 -(0.19)	0.00 -(0.15)	-0.30 -(0.25)	-0.20 -(0.21)
51-56	1.07 (0.33)	1.16 (0.33)	1.86 (1.48)	2.23 (1.58)	0.80 (1.16)	1.07 (1.25)
57-62	2.04 (0.63)	2.15 (0.65)	4.79 (4.10)	5.29 (4.24)	2.75 (3.46)	3.13 (3.59)
63-68	1.72 (0.54)	1.77 (0.53)	4.83 (4.26)	5.18 (4.36)	3.11 (3.72)	3.41 (3.83)
69-74	0.83 (0.26)	0.84 (0.25)	2.95 (2.70)	3.14 (2.76)	2.12 (2.44)	2.30 (2.50)
75-80	0.14 (0.05)	0.15 (0.05)	0.85 (0.82)	0.93 (0.85)	0.71 (0.78)	0.78 (0.80)

APPENDIX E

Range, maximum, and minimum value of average holding of business capital
for each age group in different periods of simulation for
Figure 6.11 – Model without housing capital
(Base case model shown in parenthesis)

Age group	Range		Max		Min	
	NEGATIVE shock	POSITIVE shock	NEGATIVE shock	POSITIVE shock	NEGATIVE shock	POSITIVE shock
21-26	0.00 (0.02)	0.00 (0.02)	0.00 -(0.09)	0.00 -(0.09)	0.00 -(0.11)	0.00 -(0.11)
27-32	0.00 (0.04)	0.00 (0.04)	0.00 -(0.22)	0.00 -(0.22)	0.00 -(0.26)	0.00 -(0.26)
33-38	0.00 (0.05)	0.00 (0.04)	0.00 -(0.26)	0.00 -(0.25)	0.00 -(0.30)	0.00 -(0.29)
39-44	0.00 (0.08)	0.00 (0.07)	0.00 -(0.29)	0.00 -(0.28)	0.00 -(0.36)	0.00 -(0.35)
45-50	0.03 (0.06)	0.03 (0.06)	0.09 -(0.19)	0.13 -(0.15)	0.06 -(0.25)	0.09 -(0.21)
51-56	0.32 (0.33)	0.33 (0.33)	1.56 (1.48)	1.67 (1.58)	1.24 (1.16)	1.34 (1.25)
57-62	0.66 (0.63)	0.67 (0.65)	4.15 (4.10)	4.29 (4.24)	3.49 (3.46)	3.62 (3.59)
63-68	0.59 (0.54)	0.60 (0.53)	4.37 (4.26)	4.46 (4.36)	3.77 (3.72)	3.86 (3.83)
69-74	0.32 (0.26)	0.32 (0.25)	2.77 (2.70)	2.82 (2.76)	2.45 (2.44)	2.50 (2.50)
75-80	0.09 (0.05)	0.09 (0.05)	1.02 (0.82)	1.04 (0.85)	0.93 (0.78)	0.95 (0.80)