SUPPLEMENTAL APPENDIX FOR "BREAKING THE 'IRON RICE BOWL:' EVIDENCE OF PRECAUTIONARY SAVINGS FROM CHINESE STATE-OWNED ENTERPRISES REFORM" (*NOT INTENDED FOR PUBLICATION*)

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This appendix provides some detailed estimation results not shown in the paper by He et al. (2017). In all estimation results reported here, we use the sample with government assigned jobs to correct for self-selection biases.

- Table A1 shows the full estimation results in the models that control for PIH effects associated with income expectations and pension participation (Table 6 in the paper shows only a few key variables).
- Table A2 shows the estimation results when we control for SOE firm size effects. An abbreviated version is presented as Table 7 Panel A in the text.
- Table A3 provides the estimation results from the model that controls for life-cycle effects. An abbreviated version is presented as Table 7 Panel B in the text.
- Table A4 presents the estimation results from the model that controls for other demographic factors. An abbreviated version is presented as Table 7 Panel C and discussed in Section V.7 in the text.
- Tables A5–A8 show the detailed estimation results corresponding to Panels B–G of Table 8, discussed in Section VI of the text. In particular, Table A5 controls for sample selection biases using the standard propensity score weighting approach; Table A6 controls for spouse effects; Table A7 uses an alternative risk measure; Table A8 deals with eliminating zero wealth and alternative wealth measures.
- Table A9 shows the estimation results when we add a dummy variable "pre-1986" and its interaction with the SOE dummy as additional controls in the benchmark regression model. The dummy "pre-1986" equals one if the worker was hired before the 1986 labor market reform that introduced formal labor contracts, and zero otherwise.

REFERENCES

HE, H., F. HUANG, Z. LIU, AND D. ZHU (2017): "Breaking the "Iron Rice Bowl:" Evidence of Precautionary Savings from the Chinese State-Owned Enterprises Reform," Federal Reserve Bank of San Francisco Working Paper No. 2014-04.

TABLE A1. Regressions controlling for PIH effects

Dep. variable: W/P	Income expectation		Pension participation	
	(i) 1995	(ii) 2002	(iii) 1995	(iv) 2002
SOE	-0.012	0.559**	-0.016	0.621**
	(0.094)	(0.268)	(0.102)	(0.277)
RISK	0.170***	0.150***	0.172***	0.145***
	(0.052)	(0.049)	(0.053)	(0.048)
log(P)	0.846	2.961**	0.896	2.816**
	(1.010)	(1.279)	(1.002)	(1.264)
Income decline		0.002		
		(0.161)		
No-pension			-0.025	0.350**
			(0.084)	(0.154)
Director/manager	0.190**	0.090	0.191**	0.120
	(0.080)	(0.180)	(0.080)	(0.177)
Skilled worker	-0.070	0.133	-0.066	0.157
	(0.104)	(0.187)	(0.104)	(0.189)
Unskilled/others	-0.127	0.804*	-0.118	0.789
	(0.180)	(0.486)	(0.178)	(0.484)
Public health care	0.024	-1.043**	0.013	-0.923**
	(0.189)	(0.463)	(0.181)	(0.446)
Public med insurance	-0.009	-0.707*	-0.020	-0.601
	(0.165)	(0.403)	(0.155)	(0.387)
Child age	0.006	-0.000	0.006	0.000
	(0.006)	(0.011)	(0.006)	(0.011)
Num. of boys	0.045	-0.285**	0.045	-0.283**
	(0.047)	(0.121)	(0.047)	(0.119)
Children at school	-0.097	-0.229	-0.098	-0.226
	(0.064)	(0.144)	(0.065)	(0.143)
Non-homeowner	0.018	-0.076	0.021	-0.083
	(0.068)	(0.181)	(0.067)	(0.180)
Age	0.033	0.034	0.031	0.045
	(0.050)	(0.126)	(0.049)	(0.124)
$Age^2 \times 100$	-0.046	-0.028	-0.044	-0.042
	(0.057)	(0.147)	(0.057)	(0.144)
Male	-0.364***	-0.816***	-0.370***	-0.801***
	(0.098)	(0.171)	(0.095)	(0.168)
Married	0.503***	0.383	0.499***	0.384
	(0.191)	(0.360)	(0.191)	(0.359)
Household size	-0.039	0.276*	-0.037	0.266*
	(0.050)	(0.153)	(0.050)	(0.151)
Log-Likelihood	-7,045.37	-5,505.65	-7,031.84	-5,515.49
Sample size	3,627	2,164	3,627	2,170

Notes: IV-Tobit regression results based on the sample with government assigned jobs. Columns (i) and (ii) show the regression results controlling for income expectations. Since the question on income expectations is not available in the 1995 CHIP survey, we add the "income decline" dummy in the 2002 regression only. Columns (iii) and (iv) show the results controlling for pension participation. Robust standard errors are in parentheses. ***, **, and * indicate p-values of less than 1%, 5%, and 10%, respectively.

TABLE A2. Firm size effects

Dep. variable:W/P	1995	2002
CSOE	-0.157	0.343
	(0.128)	(0.237)
LSOE	0.075	0.769**
	(0.150)	(0.367)
RISK	0.175***	0.155***
	(0.058)	(0.051)
log(P)	0.980	3.211**
	(1.161)	(1.377)
Director/manager	0.189**	0.129
	(0.081)	(0.180)
Skilled worker	-0.058	0.198
	(0.114)	(0.202)
Unskilled/others	-0.114	0.886*
	(0.195)	(0.505)
Public health care	0.029	-1.029**
	(0.190)	(0.459)
Public med insurance	-0.011	-0.703*
	(0.169)	(0.403)
Child age	0.006	0.001
	(0.006)	(0.011)
Num. of boys	0.044	-0.285**
	(0.047)	(0.122)
Children at school	-0.098	-0.226
	(0.065)	(0.146)
Non-homeowner	0.021	-0.095
	(0.072)	(0.181)
Age	0.029	0.025
	(0.052)	(0.129)
$Age^2 \times 100$	-0.042	-0.020
	(0.059)	(0.150)
Male	-0.362***	-0.819***
	(0.099)	(0.172)
Married	0.510***	0.365
	(0.189)	(0.369)
Household size	-0.038	0.273*
	(0.050)	(0.155)
Log-Likelihood	-6,976.38	-5,493.06
Sample size	3,627	2,170

Notes: Results are from the IV-Tobit regressions. Robust standard errors are in parentheses. ***, **, and * indicate p-values of less than 1%, 5%, and 10%, respectively.

TABLE A3. Life-cycle effects

Dep. variable:	Age 25-44		Age 45-55	
W/P	1995	2002	1995	2002
SOE	-0.015	0.942**	0.042	0.292
	(0.144)	(0.380)	(0.145)	(0.594)
RISK	0.196**	0.086	0.195**	0.246**
	(0.076)	(0.064)	(0.083)	(0.107)
log(P)	1.268	4.329**	1.655	3.738
	(1.446)	(1.960)	(1.730)	(3.084)
Director/manager	0.154	-0.436	0.280**	0.658**
	(0.109)	(0.290)	(0.136)	(0.286)
Skilled worker	-0.085	-0.089	0.079	0.674
	(0.116)	(0.249)	(0.257)	(0.513)
Unskilled/others	-0.237	0.952	0.328	1.375
	(0.246)	(0.708)	(0.341)	(1.180)
Public health care	-0.104	-1.574**	0.017	-1.120
	(0.287)	(0.720)	(0.275)	(0.964)
Public med insurance	-0.031	-1.227*	-0.091	-0.753
	(0.231)	(0.631)	(0.261)	(0.814)
Child age	-0.005	-0.032	0.006	0.003
	(0.013)	(0.035)	(0.007)	(0.012)
Num. of boys	0.061	-0.273	0.028	-0.211
	(0.060)	(0.175)	(0.082)	(0.185)
Children at school	0.097	-0.085	-0.261**	-0.224
	(0.102)	(0.225)	(0.105)	(0.236)
Non-homeowner	0.054	0.249	0.043	-0.367
	(0.076)	(0.280)	(0.159)	(0.274)
Age	-0.256**	-0.706	0.315	0.490
	(0.127)	(0.439)	(0.525)	(1.100)
$Age^2 \times 100$	0.360**	1.035*	-0.327	-0.477
	(0.169)	(0.585)	(0.530)	(1.109)
Male	-0.363***	-0.932***	-0.482**	-0.937***
	(0.129)	(0.261)	(0.214)	(0.298)
Married	0.430*	0.182	0.573*	0.618
	(0.249)	(0.511)	(0.344)	(0.634)
Household size	-0.015	0.540*	-0.008	0.199
	(0.074)	(0.299)	(0.076)	(0.160)
Log-Likelihood	-4,497.67	-2,739.64	-2,472.42	-2,711.22
Sample size	2,349	1,123	1,278	1,047

Notes: Results are from the IV-Tobit regressions. Robust standard errors are in parentheses. ***, **, and * indicate p-values of less than 1%, 5%, and 10%, respectively.

TABLE A4. Other demographic factors

Dep. variable: W/P	Female		Female or less skilled		Female or less educated		Female, or less skilled, or less educated	
	1995	2002	1995	2002	1995	2002	1995	2002
SOE	-0.130	0.931*	-0.126	1.365*	-0.043	0.871*	-0.063	1.227*
	(0.193)	(0.526)	(0.160)	(0.777)	(0.125)	(0.459)	(0.126)	(0.697)
RISK	0.024	0.345**	0.041	0.359	0.064	0.195**	0.062	0.257*
	(0.102)	(0.165)	(0.073)	(0.218)	(0.047)	(0.095)	(0.047)	(0.143)
log(P)	-2.353	4.267	-1.659	6.430	-1.184	3.873*	-1.152	5.441
	(2.467)	(2.770)	(1.414)	(4.320)	(0.842)	(2.292)	(0.866)	(3.811)
Director/manage	0.232	0.071	0.239	0.215	0.174	0.702	0.166	0.819
	(0.192)	(0.438)	(0.182)	(0.523)	(0.139)	(0.456)	(0.139)	(0.543)
Skilled worker	-0.305	0.271	-0.242	0.574	-0.209*	0.285	-0.217*	0.377
	(0.250)	(0.387)	(0.163)	(0.545)	(0.113)	(0.304)	(0.115)	(0.382)
Unskilled/others	-0.499	1.357	-0.385	2.321	-0.389**	1.026	-0.370**	1.443
	(0.440)	(1.147)	(0.268)	(1.820)	(0.160)	(0.699)	(0.155)	(1.055)
Public health care	0.585	-1.586	0.463	-2.069	0.364*	-1.064	0.330*	-1.635
	(0.495)	(0.974)	(0.296)	(1.442)	(0.198)	(0.769)	(0.196)	(1.259)
Public med insurance	0.434	-1.104	0.238	-1.643	0.308	-0.921	0.232	-1.419
	(0.487)	(0.898)	(0.287)	(1.282)	(0.207)	(0.727)	(0.197)	(1.157)
Child age	0.014	-0.020	0.012	-0.020	0.011	-0.006	0.010	-0.020
	(0.010)	(0.026)	(0.009)	(0.030)	(0.007)	(0.018)	(0.007)	(0.023)
Num. of boys	0.073	-0.329	0.034	-0.590*	0.059	-0.541**	0.056	-0.604**
	(0.097)	(0.285)	(0.080)	(0.333)	(0.065)	(0.219)	(0.064)	(0.254)
Children at school	-0.256*	-0.964***	-0.159	-0.862**	-0.084	-0.265	-0.061	-0.305
	(0.135)	(0.355)	(0.108)	(0.412)	(0.089)	(0.259)	(0.086)	(0.284)
Non-homeowner	-0.101	0.440	-0.092	0.414	-0.058	0.133	-0.061	0.227
	(0.175)	(0.564)	(0.110)	(0.639)	(0.081)	(0.385)	(0.078)	(0.452)
Age	0.104	0.244	0.054	0.214	0.024	-0.165	0.015	-0.073
	(0.123)	(0.309)	(0.096)	(0.298)	(0.062)	(0.253)	(0.062)	(0.282)
$Age^2 \times 100$	-0.108	-0.285	-0.048	-0.251	-0.014	0.214	-0.004	0.106
	(0.142)	(0.366)	(0.112)	(0.349)	(0.075)	(0.294)	(0.073)	(0.328)
Male			-0.398*	-1.786*	-0.364***	-1.105***	-0.342***	-1.064***
			(0.205)	(0.938)	(0.089)	(0.267)	(0.089)	(0.306)
Married	0.769***	1.048**	0.786***	0.776	0.726***	0.852*	0.727***	0.559
	(0.224)	(0.457)	(0.198)	(0.594)	(0.177)	(0.449)	(0.173)	(0.580)
Household size	-0.184	0.745**	-0.128	1.057*	-0.078	0.440**	-0.080	0.718*
	(0.161)	(0.298)	(0.106)	(0.612)	(0.065)	(0.211)	(0.064)	(0.405)
Log-Likelihood	-2,588.66	-1,516.63	-3,133.41	-2,027.58	-4,101.72	-2,578.55	-4,284.28	-2,844.12
Sample size	1,305	585	1,572	756	2,063	984	2,157	1,060

Notes: Results are from the IV-Tobit regressions. Robust standard errors are in parentheses. ***, **, and * indicate p-values of less than 1%, 5%, and 10%, respectively.

TABLE A5. Controlling for selection bias

Dep. variable:W/P	1995	2002
SOE	0.0003	0.571**
	(0.101)	(0.278)
RISK	0.202***	0.152***
	(0.055)	(0.051)
log(P)	1.459	2.899**
	(0.986)	(1.348)
Director/manager	0.157*	0.204
	(0.089)	(0.191)
Skilled worker	-0.041	0.192
	(0.107)	(0.189)
Unskilled/others	-0.061	0.845*
	(0.178)	(0.490)
Public health care	-0.029	-1.010**
	(0.184)	(0.505)
Public med insurance	-0.058	-0.672
	(0.179)	(0.438)
Child age	0.005	-0.008
	(0.006)	(0.012)
Num. of boys	0.049	-0.273**
	(0.051)	(0.123)
Children at school	-0.095	-0.239
	(0.072)	(0.150)
Non-homeowner	0.009	-0.157
	(0.075)	(0.187)
Age	0.023	-0.001
	(0.057)	(0.138)
$Age^2 \times 100$	-0.040	0.020
	(0.066)	(0.161)
Male	-0.403***	-0.875***
	(0.097)	(0.191)
Married	0.455**	0.149
	(0.208)	(0.432)
Household size	-0.018	0.323**
	(0.057)	(0.157)
Log-Likelihood	-12,101.23	-13,055.99
Number of observations	3,627	2,170

Notes: Results are from the IV-Tobit regressions. Robust standard errors are in parentheses. ***, **, and * indicate p-values of less than 1%, 5%, and 10%, respectively.

TABLE A6. Spouse effects

Dep. variable:W/P	1995	2002
SOE	-0.006	0.464*
	(0.099)	(0.265)
SOE spouse	-0.084	0.236*
	(0.058)	(0.137)
RISK	0.158***	0.146***
	(0.059)	(0.049)
log(P)	0.620	2.844**
	(1.113)	(1.265)
Director/manager	0.156*	0.127
	(0.080)	(0.177)
Skilled worker	-0.083	0.156
	(0.103)	(0.188)
Unskilled/others	-0.169	0.795
	(0.190)	(0.486)
Public health care	0.060	-0.976**
	(0.201)	(0.455)
Public med insurance	0.002	-0.658*
	(0.177)	(0.396)
Child age	0.010*	0.001
	(0.006)	(0.011)
Num. of boys	0.045	-0.279**
	(0.048)	(0.120)
Children at school	-0.080	-0.234
	(0.066)	(0.142)
Non-homeowner	-0.001	-0.093
	(0.068)	(0.179)
Age	0.066	0.025
	(0.048)	(0.125)
$Age^2 \times 100$	-0.080	-0.016
	(0.055)	(0.146)
Male	-0.338***	-0.793***
	(0.108)	(0.170)
Married	0.997**	0.316
	(0.481)	(0.359)
Household size	-0.089*	0.276*
	(0.050)	(0.152)
Log-Likelihood	-6,623.97	-5,518.17
Sample size	3,430	2,170

Notes: Results are from the IV-Tobit regressions. Robust standard errors are in parentheses. ***, **, and * indicate p-values of less than 1%, 5%, and 10%, respectively.

TABLE A7. Alternative risk measure

Dep. variable:W/P	1995	2002
SOE	-0.022	0.522**
	(0.094)	(0.260)
log variance(log income)	0.049	0.906*
	(0.209)	(0.517)
log(P)	0.975	2.830**
	(1.105)	(1.246)
Director/manager	0.191**	0.139
	(0.082)	(0.178)
Skilled worker	-0.079	0.170
	(0.127)	(0.189)
Unskilled/others	-0.164	0.776
	(0.235)	(0.481)
Public health care	-0.020	-1.032**
	(0.211)	(0.461)
Public med insurance	-0.013	-0.717*
	(0.172)	(0.404)
Child age	0.005	-0.002
	(0.006)	(0.011)
Num. of boys	0.040	-0.284**
	(0.047)	(0.120)
Children at school	-0.079	-0.222
	(0.066)	(0.143)
Non-homeowner	0.019	-0.049
	(0.071)	(0.187)
Age	0.027	0.043
	(0.052)	(0.125)
$Age^2 \times 100$	-0.039	-0.037
	(0.059)	(0.145)
Male	-0.376***	-0.838***
	(0.105)	(0.173)
Married	0.486**	0.375
	(0.197)	(0.361)
Household size	-0.050	0.265*
	(0.049)	(0.151)
Log-Likelihood	-7,128.61	-5,533.28
Sample size	3,627	2,170

Notes: Results are from the IV-Tobit regressions. Robust standard errors are in parentheses. ***, **, and * indicate p-values of less than 1%, 5%, and 10%, respectively.

TABLE A8. Eliminating zero wealth and alternative wealth measures

Dep. variable:	Eliminating Zero		VLA		NHNBW	
W/P	1995	2002	1995	2002	1995	2002
SOE	0.034	0.372*	0.003	0.475*	0.111	0.851**
	(0.086)	(0.216)	(0.091)	(0.251)	(0.131)	(0.357)
RISK	0.145***	0.131***	0.161***	0.146***	0.291***	0.180***
	(0.036)	(0.041)	(0.051)	(0.048)	(0.055)	(0.063)
log(P)	0.466	1.471	1.147	2.708**	1.012	3.194**
	(0.652)	(0.983)	(0.989)	(1.189)	(0.885)	(1.375)
Director/manager	0.121	0.027	0.167**	0.090	0.401***	0.122
	(0.076)	(0.158)	(0.079)	(0.167)	(0.117)	(0.250)
Skilled worker	(0.094)	0.068	(0.046)	0.147	0.080	0.056
	(0.081)	(0.158)	(0.103)	(0.178)	(0.115)	(0.239)
Unskilled/others	(0.017)	0.451	(0.037)	0.788*	0.046	1.196**
	(0.120)	(0.394)	(0.178)	(0.446)	(0.195)	(0.591)
Public health care	(0.065)	-0.783**	0.008	-0.885**	(0.113)	-0.998*
	(0.137)	(0.364)	(0.185)	(0.423)	(0.193)	(0.515)
Public med insurance	(0.113)	-0.545*	(0.054)	-0.603*	(0.282)	-0.841*
	(0.131)	(0.324)	(0.163)	(0.365)	(0.192)	(0.461)
Child age	(0.004)	(0.003)	0.006	0.002	0.012	0.003
	(0.005)	(0.010)	(0.006)	(0.010)	(0.008)	(0.014)
Num. of boys	0.081*	-0.208*	0.058	-0.248**	0.002	(0.235)
	(0.044)	(0.110)	(0.046)	(0.110)	(0.068)	(0.159)
Children at school	(0.051)	(0.157)	(0.094)	(0.223)	(0.115)	(0.239)
	(0.061)	(0.132)	(0.064)	(0.137)	(0.095)	(0.189)
Non-homeowner	0.079	(0.070)	0.043	(0.121)	0.082	(0.225)
	(0.058)	(0.160)	(0.068)	(0.172)	(0.087)	(0.234)
Age	0.019	0.066	0.014	0.032	(0.018)	0.023
	(0.043)	(0.113)	(0.050)	(0.120)	(0.069)	(0.155)
$Age^2 \times 100$	(0.017)	(0.058)	(0.026)	(0.028)	(0.006)	(0.025)
	(0.051)	(0.131)	(0.057)	(0.139)	(0.081)	(0.182)
Male	-0.323***	-0.725***	-0.370***	-0.817***	-0.575***	-1.218***
	(0.073)	(0.151)	(0.096)	(0.165)	(0.108)	(0.225)
Married	0.299*	0.492	0.449**	0.352	0.774***	0.681
	(0.175)	(0.322)	(0.191)	(0.351)	(0.246)	(0.432)
Household size	(0.003)	0.294**	(0.043)	0.248*	0.010	0.347*
	(0.045)	(0.143)	(0.049)	(0.127)	(0.070)	(0.188)
Constant	(3.246)	(13.254)	(9.367)	-24.219**	(5.797)	-26.117**
	(5.247)	(8.817)	(7.821)	(10.271)	(6.986)	(12.054)
Log-Likelihood			-6913.87	-5367.17		
Sample size	3,190	1,977	3,627	2,170	3,627	2,170

Notes: We use IV-Tobit regressions for the case with very liquid asset as the household wealth measure and the standard IV (2SLS) regression for the other cases. Robust standard errors are in parentheses. ***, **, and * indicate p-values of less than 1%, 5%, and 10%, respectively.

Table A9. Pre 1986

Dep. variable:W/P	1995	2002
SOE	0.065	0.658**
	(0.126)	(0.298)
Pre-1986	-0.036	0.027
	(0.091)	(0.165)
Pre-1986×SOE	-0.090	-0.231
	(0.127)	(0.247)
RISK	0.169***	0.143***
	(0.052)	(0.048)
log(P)	0.835	2.814**
	(1.005)	(1.245)
Director/manager	0.188**	0.126
	(0.080)	(0.176)
Skilled worker	-0.068	0.152
	(0.103)	(0.187)
Unskilled/others	-0.125	0.809*
	(0.180)	(0.480)
Public health care	0.032	-0.964**
	(0.189)	(0.446)
Public med insurance	0.001	-0.642*
	(0.164)	(0.388)
Child age	0.006	0.001
	(0.006)	(0.011)
Num. of boys	0.044	-0.284**
	(0.047)	(0.120)
Children at school	-0.095	-0.224
	(0.064)	(0.143)
Non-homeowner	0.016	-0.089
	(0.069)	(0.178)
Age	0.044	0.050
	(0.050)	(0.130)
$Age^2 \times 100$	-0.057	-0.044
	(0.057)	(0.150)
Male	-0.365***	-0.804***
	(0.097)	(0.169)
Married	0.506***	0.379
	(0.191)	(0.359)
Household size	-0.038	0.270*
	(0.050)	(0.151)
Log-Likelihood	-7,042.68	-5,517.85
Number of observations	3,627	2,170

Notes: Results are from the IV-Tobit regressions. Robust standard errors are in parentheses. ***, **, and * indicate p-values of less than 1%, 5%, and 10%, respectively.