Comments on

Lifecycle Impacts of the Financial and Economic Crisis on Household Optimal Consumption, Portfolio Choice and Labor Supply

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August 4, 2011

Central Question

- How would an economic and financial crisis affect household behavior?
  - Financial/economic crisis = at least a 30 percent decline in stock market in the first year and below average GDP growth for four years ("contractionary state")
  - Household behavior = Short- and long-term effects on consumption, labor supply, retirement age (public annuity level), and wealth allocation among stocks, bonds, and private deferred and immediate annuities
- Special analysis of households facing a "triple whammy"
  - a financial/economic crisis at the beginning of the analysis
  - unemployed in at least two of the first four years of the analysis
  - have "below first quartile" (below "25th percentile"?) cumulative stock returns through age 62

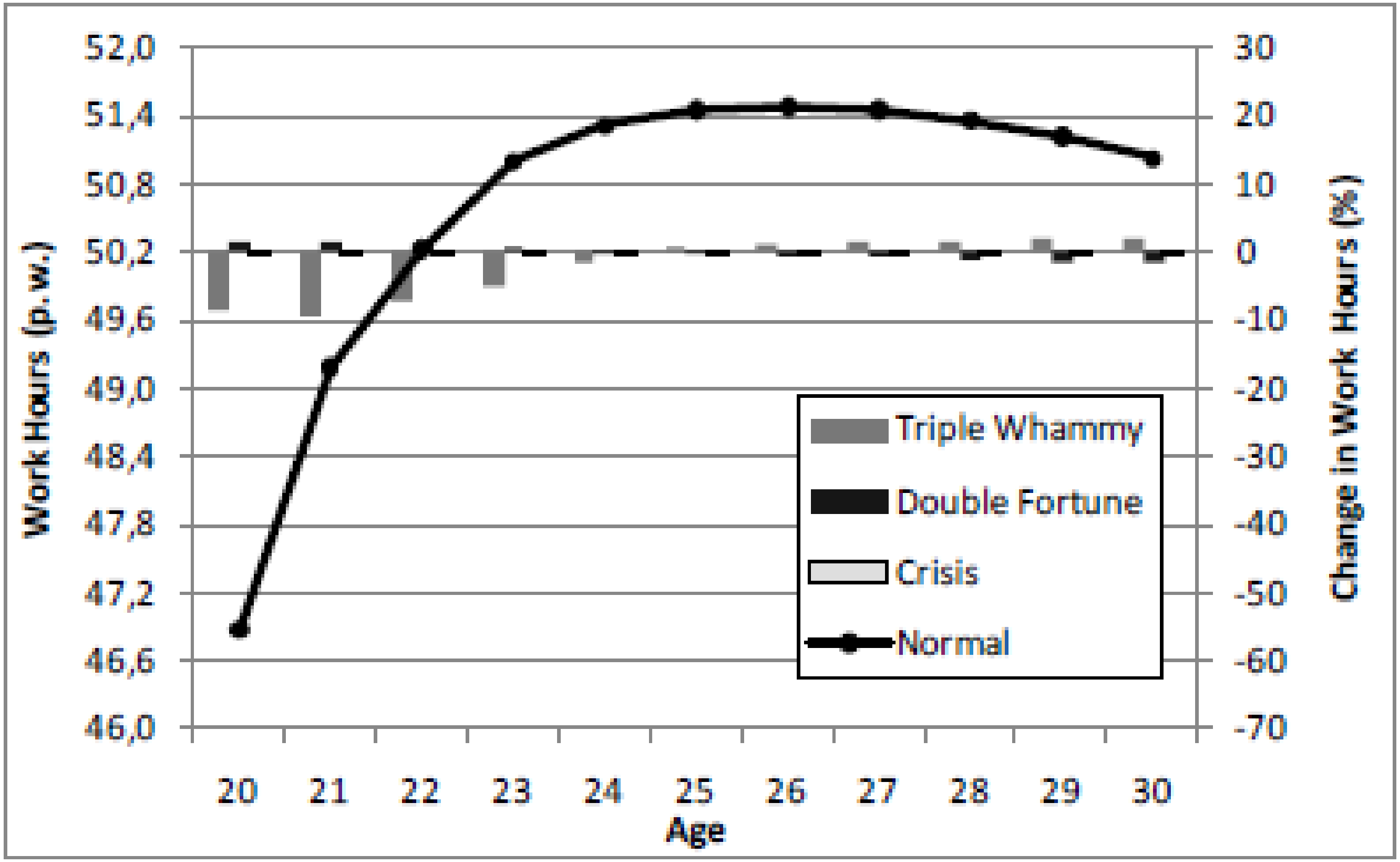
Basic Results

- For households age 20, the combination of an economic and financial crisis has very little impact on behavior

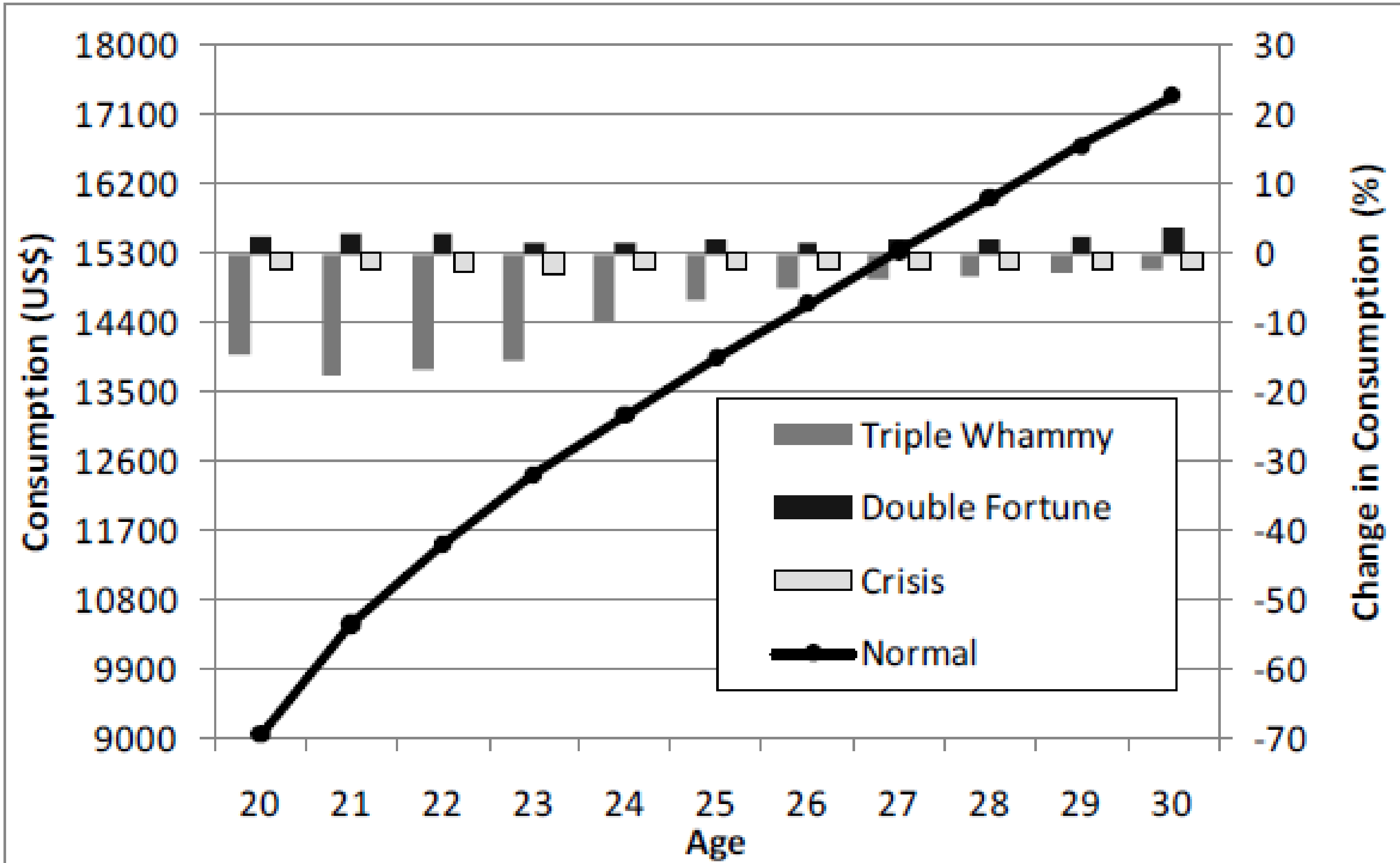
- For households age 55, there is a small but noticeable drop in consumption.

Figure 1: Short-term Effects of Financial/Economic Crises on Young Cohort (Age 20)

Panel A

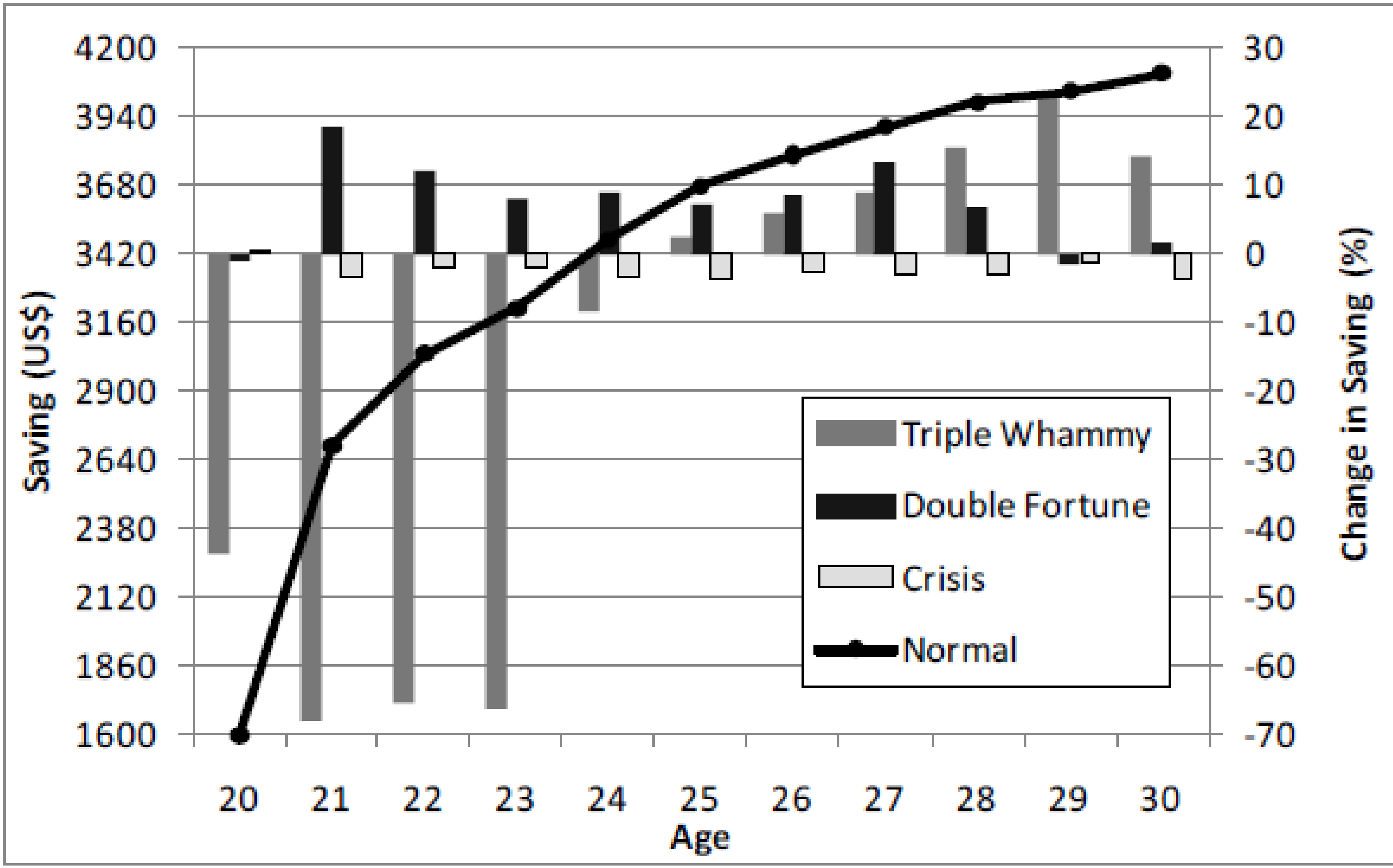


Panel B



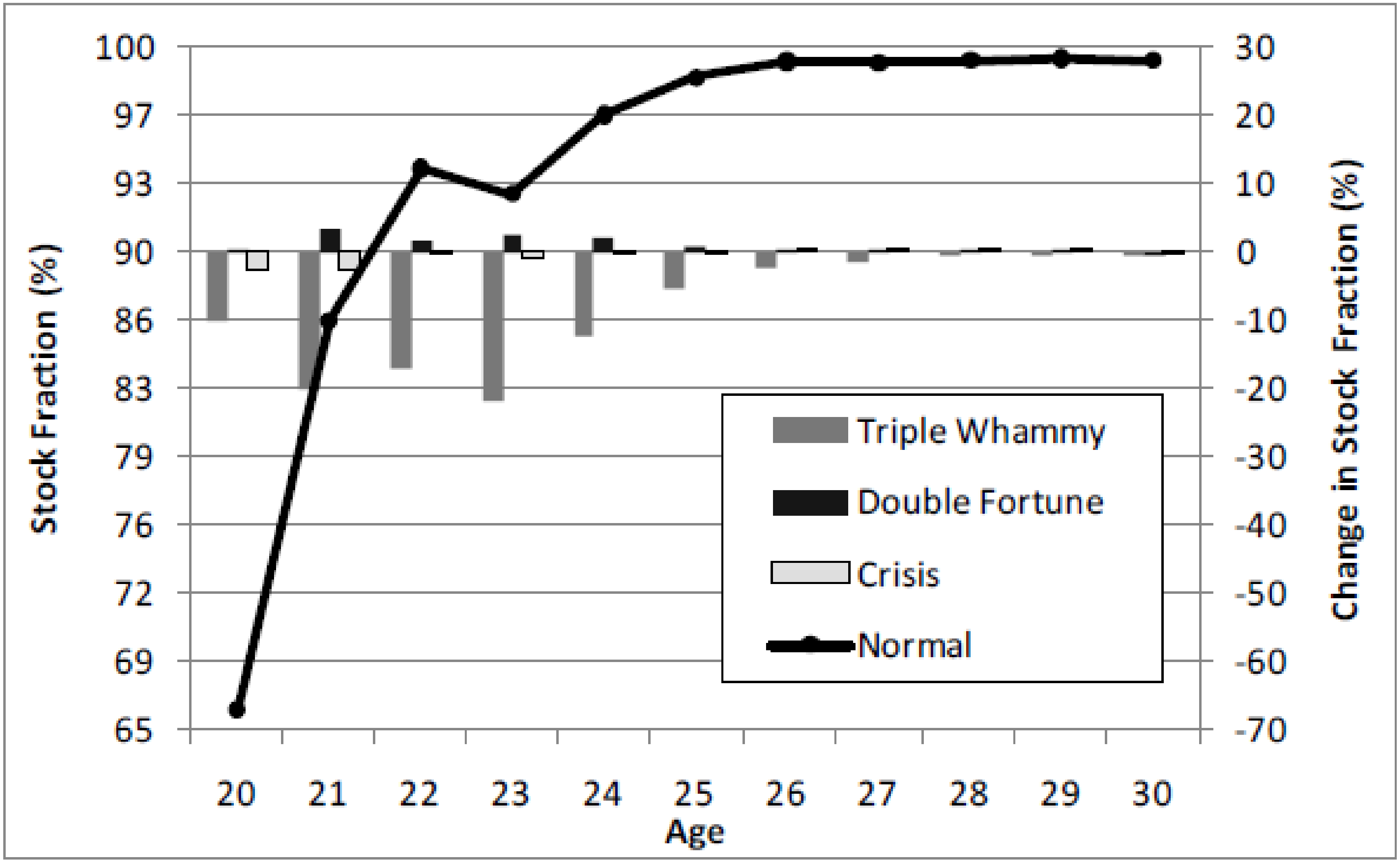
18000
17100
16200
15300
14400
13500
12600
11700
10800
9900
9000
Consumption (US$)
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
Change in Consumption (%)
20
21
22
23
24
25
26
27
28
29
30
Age
Triple Whammy
Double Fortune
Crisis
Normal

Panel C



4200
3940
3680
3420
3160
2900
2640
2380
2120
1860
1600
Saving (US$)
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
Change in Saving (%)
20
21
22
23
24
25
26
27
28
29
30
Age
Triple Whammy
Double Fortune
Crisis
Normal

Panel D



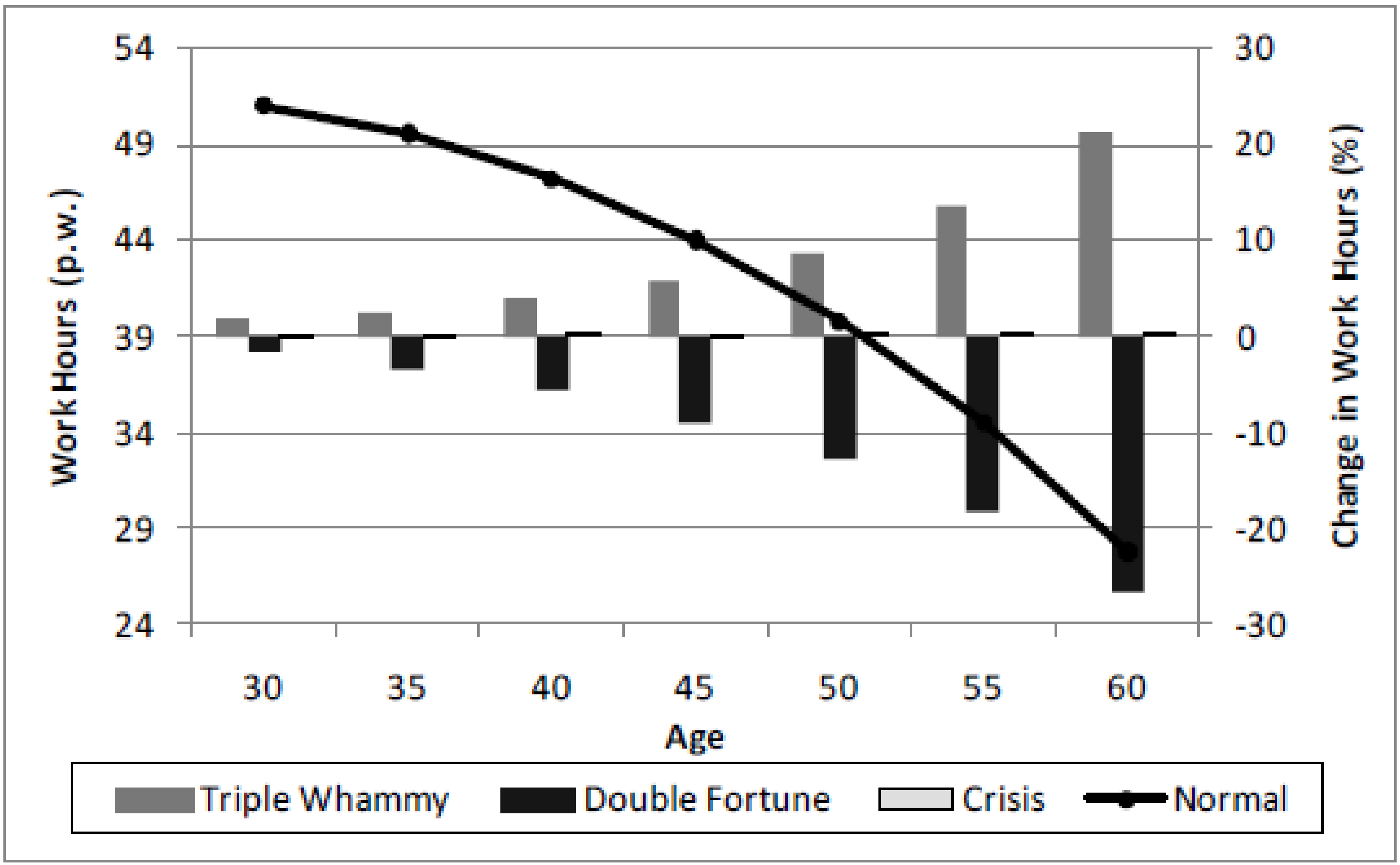
Stock Fraction (%)
100
97
93
90
86
83
79
76
72
69
65
Change in Stock Fraction (%)
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
20
21
22
23
24
25
26
27
28
29
30
Age
Triple Whammy
Double Fortune
Crisis
Normal

Results for Households Facing a Triple Whammy

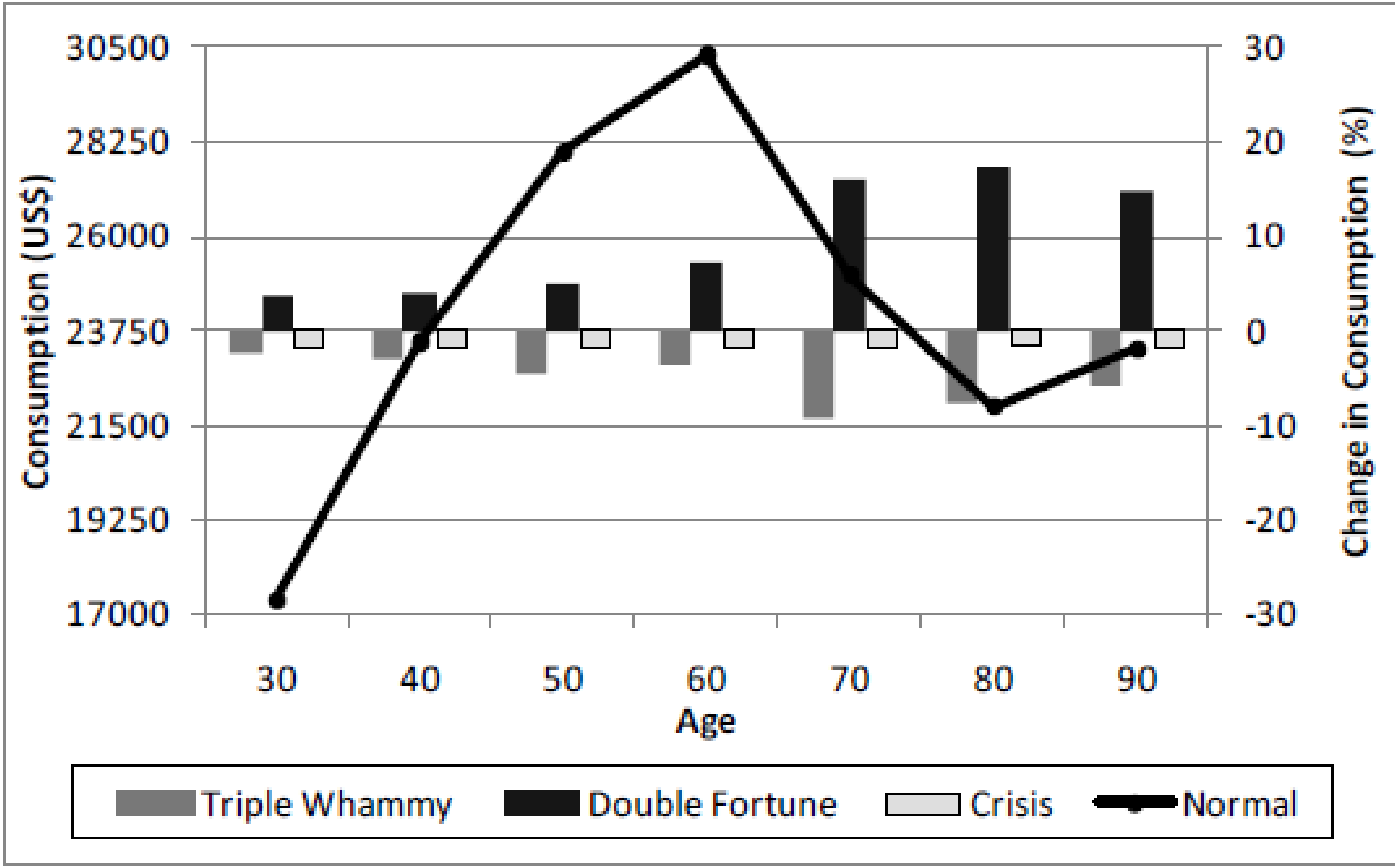
Age of beginning of analysis	55	20	20
Time period	Short term	Short term	Long term
Consumption	Falls 10%	Falls by 10-15%	Falls by 2%
Work Hours	Rise 6-22%	Fall by 8-9%	Rise
Retirement Date	Later by 1 year	__	Later
Equity Exposure	Falls, then rises	Falls	Rises

Figure 3: Long-term Effects of Financial/Economic Crises on Young Cohort (Age 20)

Panel A

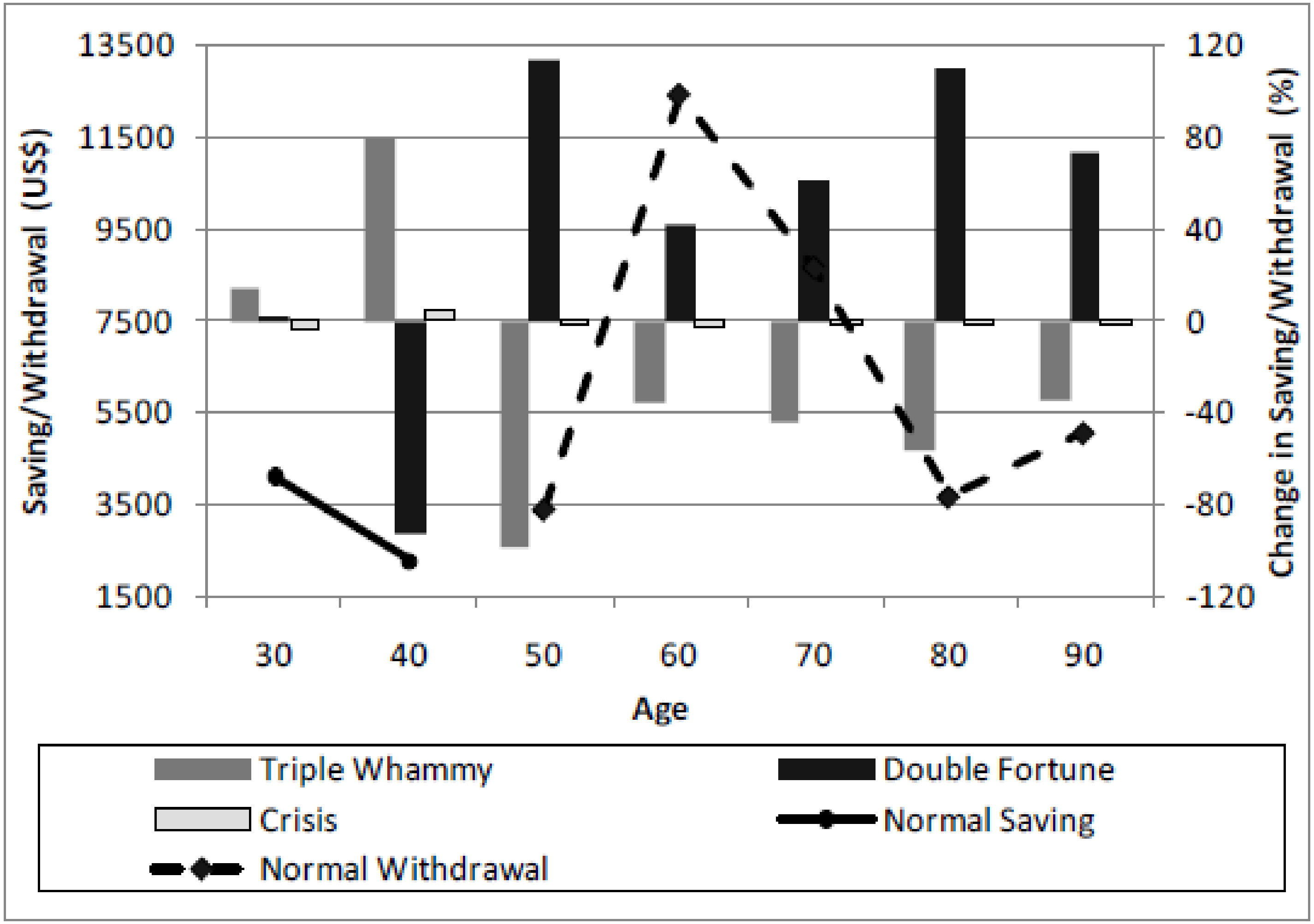


Panel B



30500
28250
26000
23750
21500
19250
17000
Consumption (US$)
30
20
10
0
-10
-20
-30
Change in Consumption (%)
30
40
50
60
70
80
90
Age
Triple Whammy
Double Fortune
Crisis
Normal

Panel C



Notes: Panel A: Expected work hours. Panel B: Expected consumption. Panel C: Expected. saving/withdrawal (i.e., labor income/Social Security benefits after taxes and housing expenditures minus consumption). Solid black line (axis on the left): Absolute values under normal scenario. Bars (axis on the right): Relative deviations from normal case for alternative scenarios: Crisis (light grey), Double fortune (black), Triple whammy (dark grey). Source: Authors' calculations.

Model Specification

- Two states of the economy – expansions and contractions
- The unemployment rate is assumed to be lower in expansions than contractions.
- Equity returns are assumed to have higher mean and lower variance in expansions relative to contractions
- Permanent wage shock has mean zero in both states and has lower variance in expansion
- Transitory wage shock is the same in both states

Base Case Model Results

- Work hours peak at age 25-26 (Figure 1)
- A lot of saving by 20 year olds (Figure 1)
- Net saving withdrawals begin by age 50 (Figure 3).
- What is the age pattern of private annuity purchases in the model?

Building results up from simpler models

- Hard to pinpoint the channels through which policies are having effects in the model

- Could run the same shocks to wealth or labor demand/unemployment in a simpler life cycle model first and then build up to the full specification

- Conjecture: the results would largely be the same in a model without two states of the world (i.e., without the stochastic structure of asset and labor market returns being contingent on the state of the world).