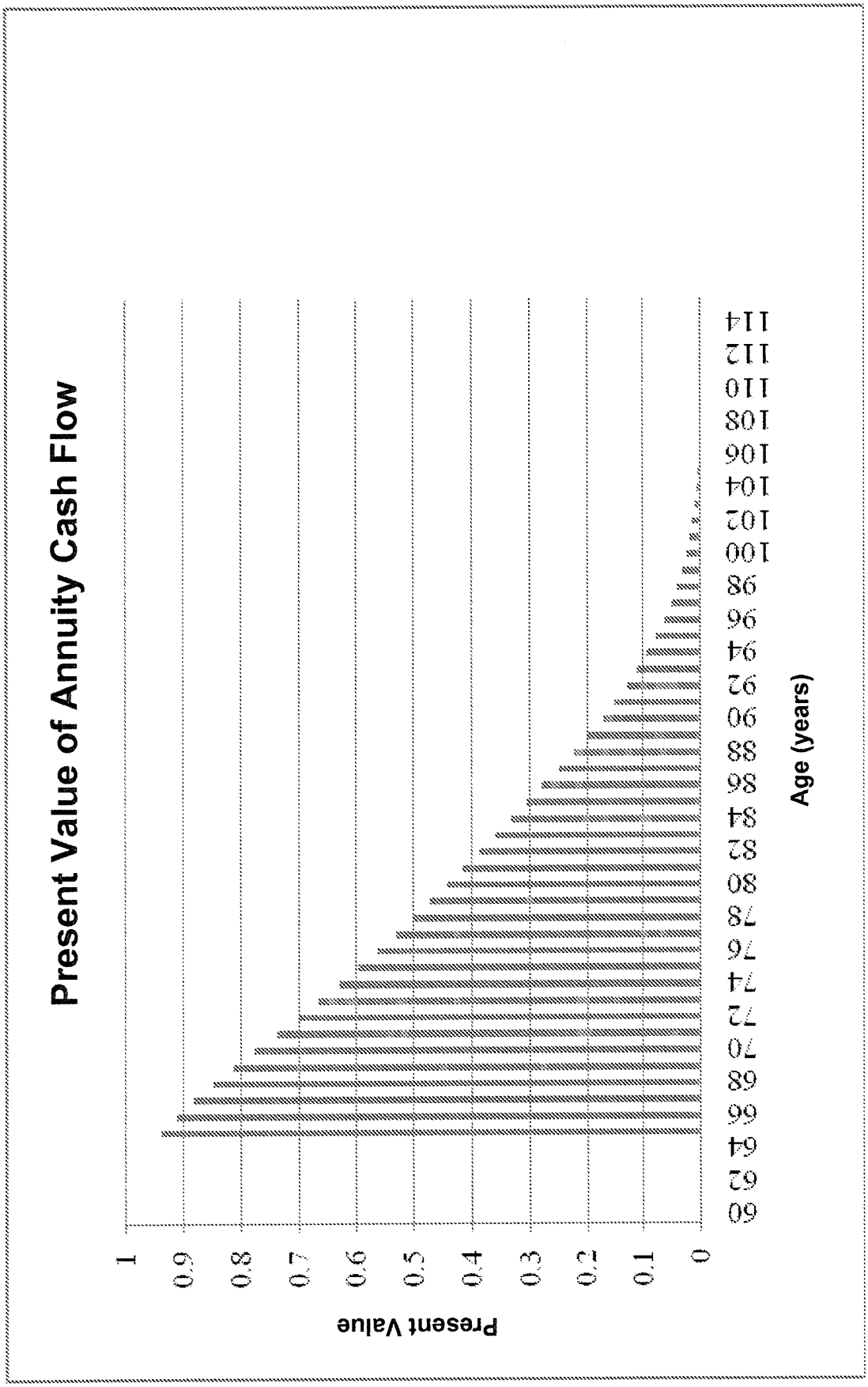

Present Value of Annuity Cash Flow
Present Value
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Age (years)
60
62
64
66
68
70
72
74
76
78
80
82
84
86
88
90
92
94
96
98
100
102
104
106
108
110
112
114

FIG. 1

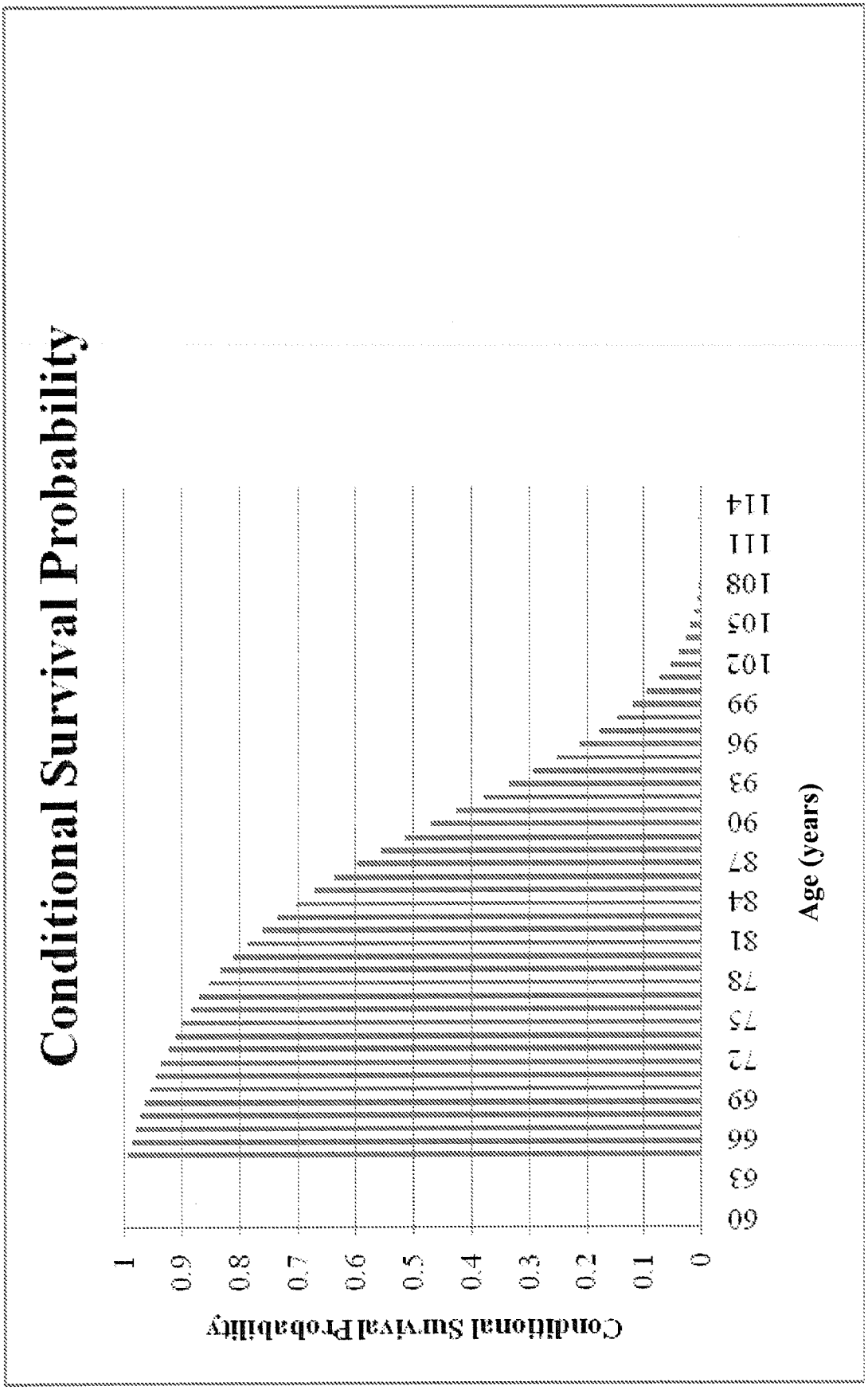

Conditional Survival Probability
Conditional Survival Probability
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
60
63
66
69
72
75
78
81
84
87
90
93
96
99
102
105
108
111
114
Age (years)

FIG. 2A

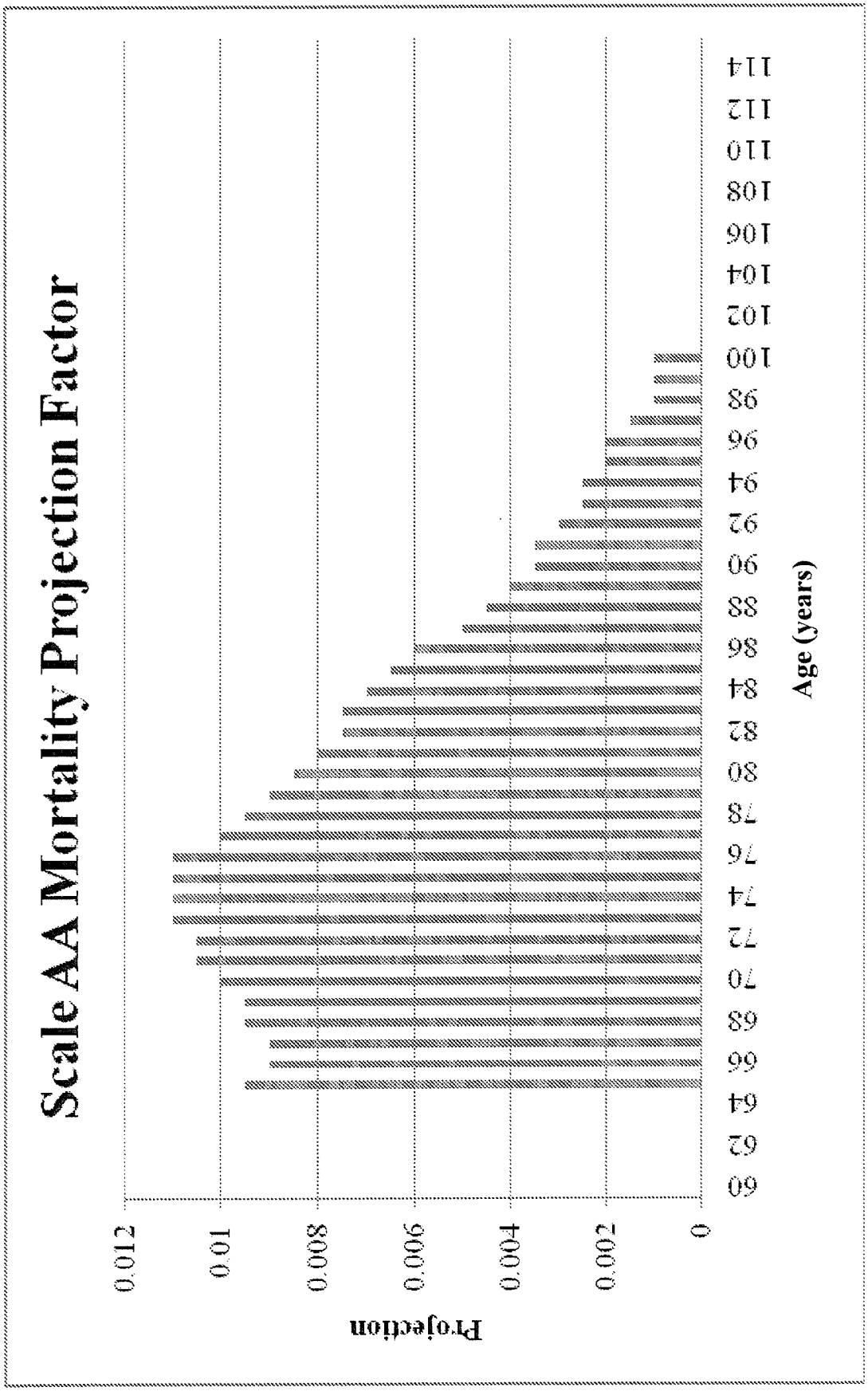

Scale AA Mortality Projection Factor
Projection
0.012
0.01
0.008
0.006
0.004
0.002
0
60
62
64
66
68
70
72
74
76
78
80
82
84
86
88
90
92
94
96
98
100
102
104
106
108
110
112
114
Age (years)

FIG. 2B

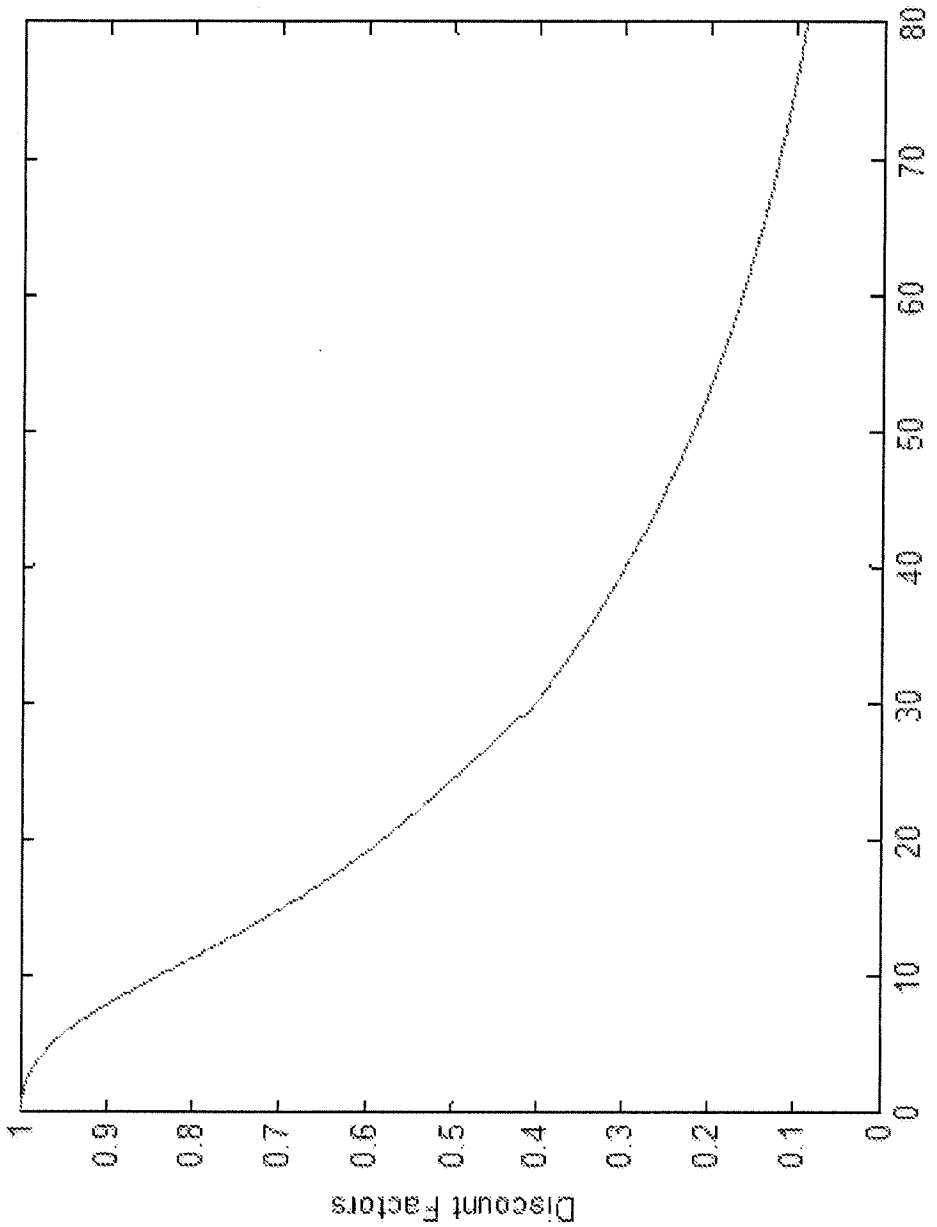

Discount Factors
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
10
20
30
40
50
60
70
80
Tenors

FIG. 3

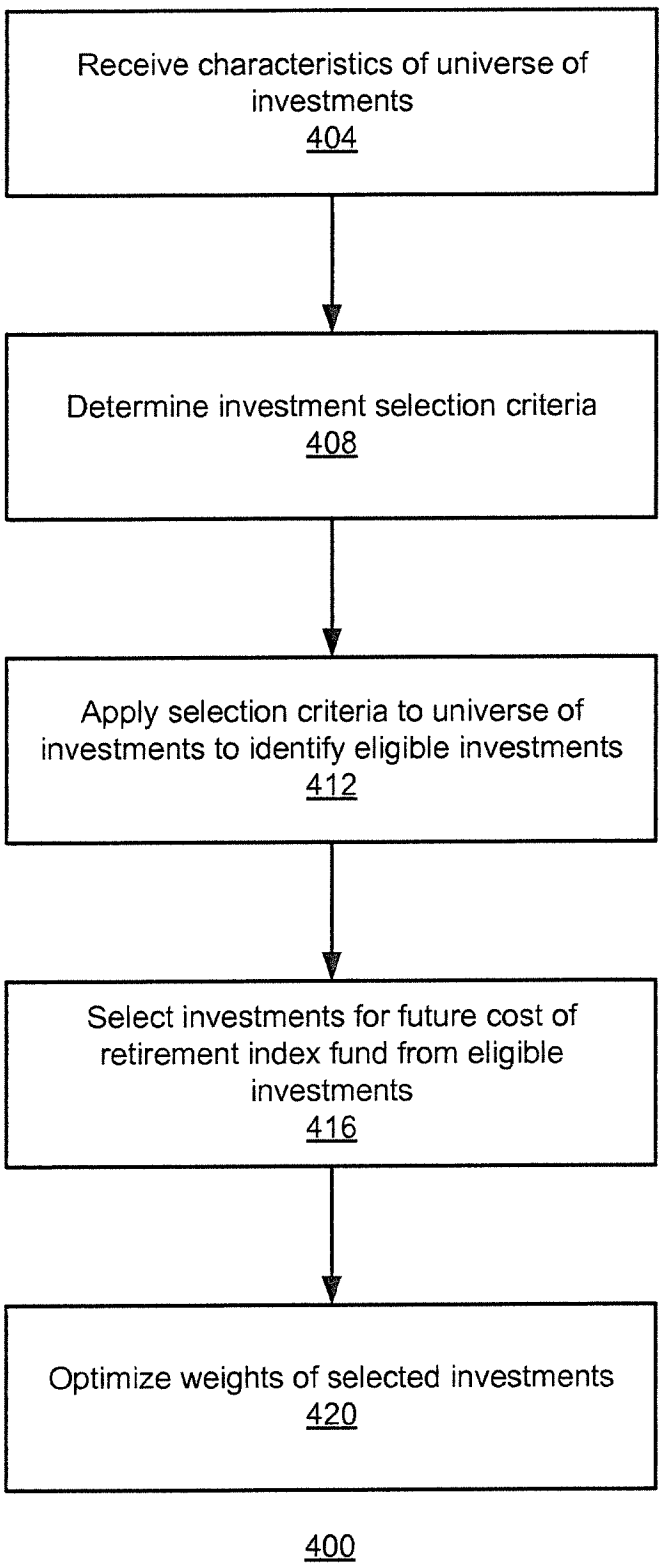

Receive characteristics of universe of investments
404
Determine investment selection criteria
408
Apply selection criteria to universe of investments to identify eligible investments
412
Select investments for future cost of retirement index fund from eligible investments
416
Optimize weights of selected investments
420
400

FIG. 4

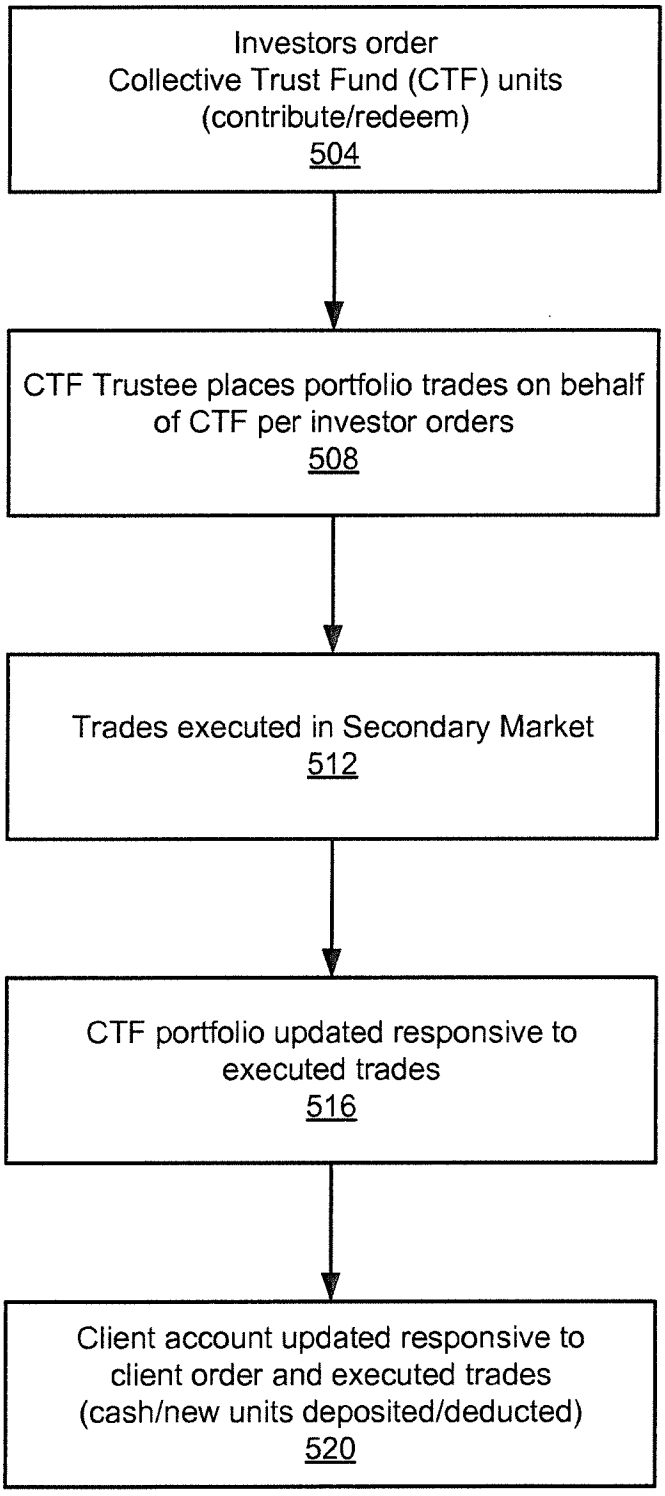

Investors order
Collective Trust Fund (CTF) units
(contribute/redeem)
504
CTF Trustee places portfolio trades on behalf of CTF per investor orders
508
Trades executed in Secondary Market
512
CTF portfolio updated responsive to executed trades
516
Client account updated responsive to client order and executed trades
(cash/new units deposited/deducted)
520
500

FIG. 5