Demographic changes, migration and economic growth in the euro area

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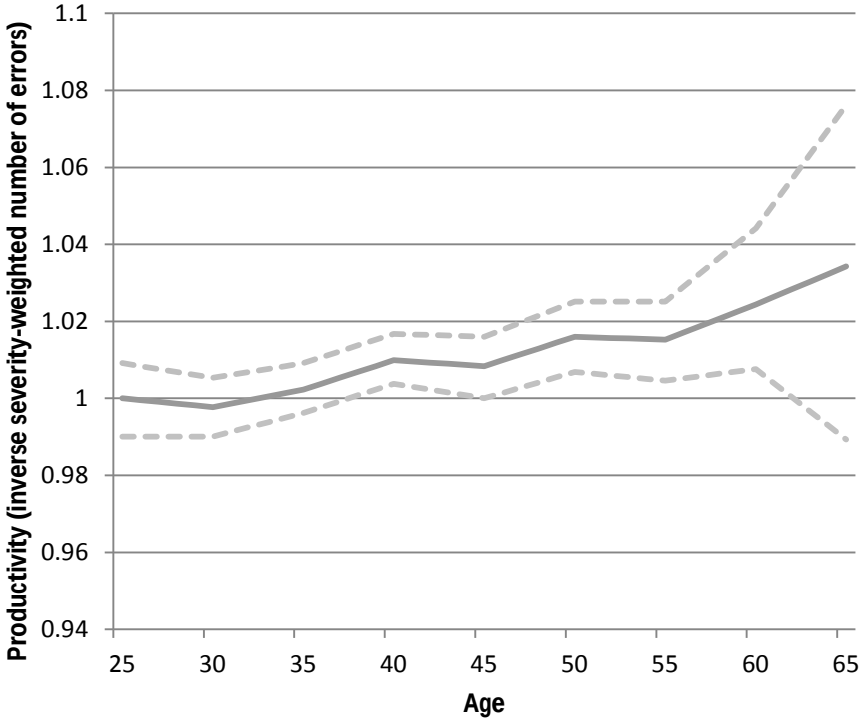
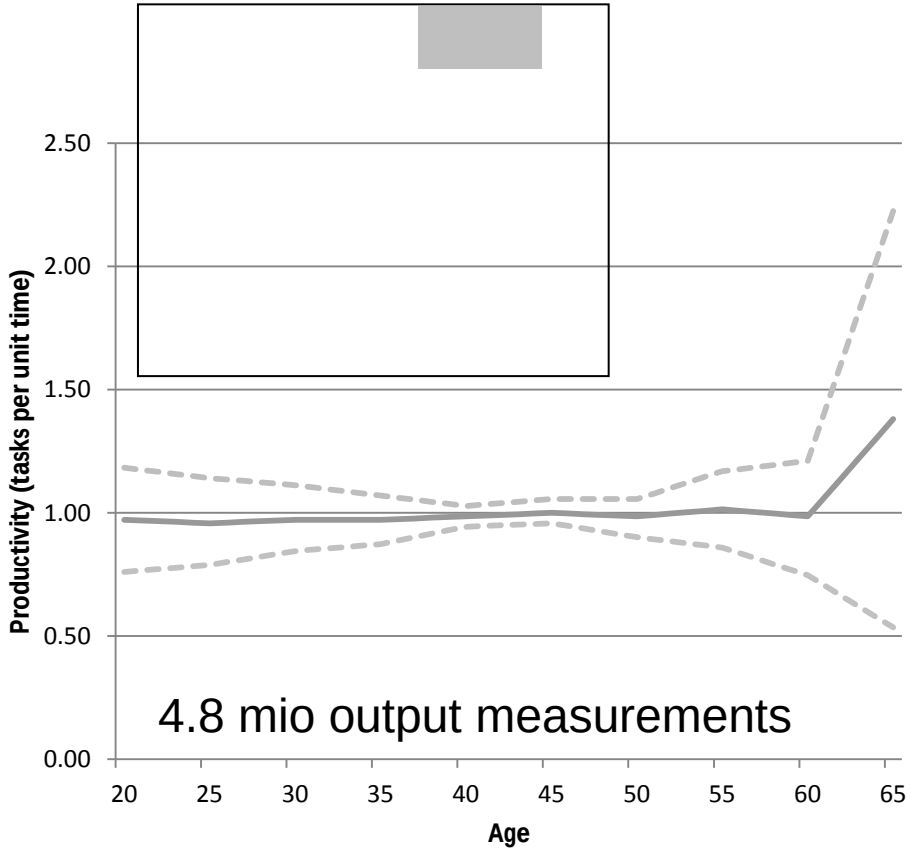
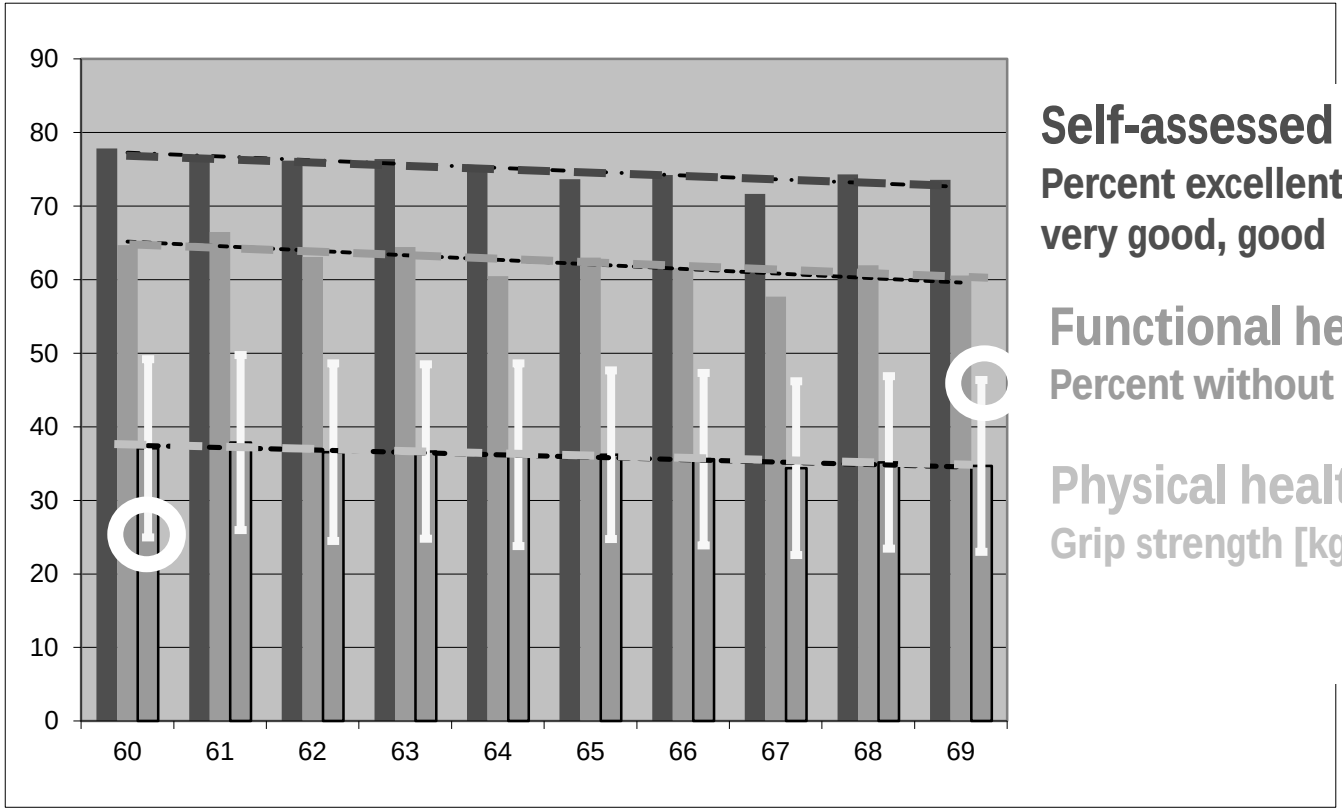

Productivity (inverse severity-weighted number of errors)
1.1
1.08
1.06
1.04
1.02
1
0.98
0.96
0.94
25
30
35
40
45
50
55
60
65
Age

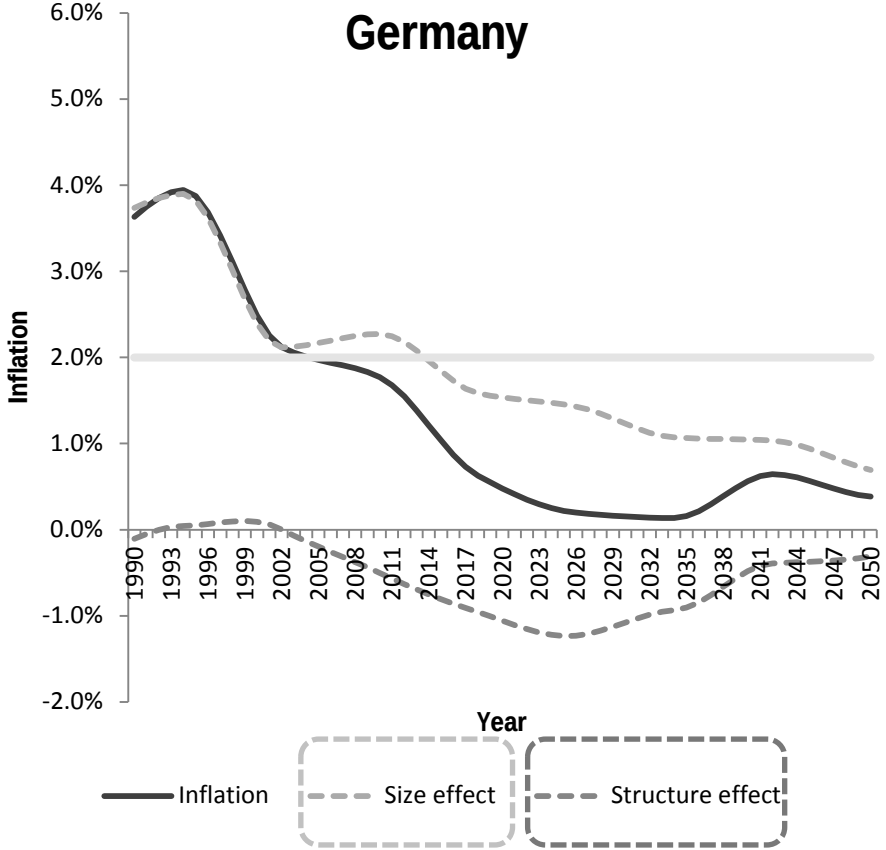

Productivity (tasks per unit time)
2.50
2.00
1.50
1.00
0.50
0.00
20
25
30
35
40
45
50
55
60
65
Age
4.8 mio output measurements

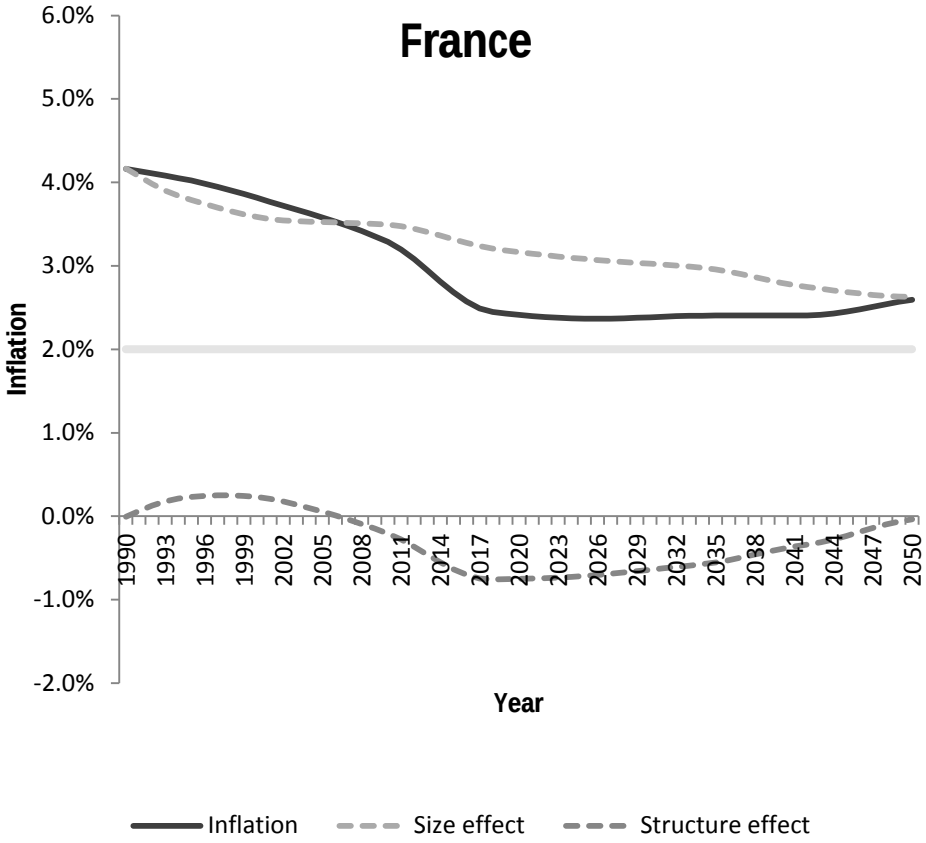


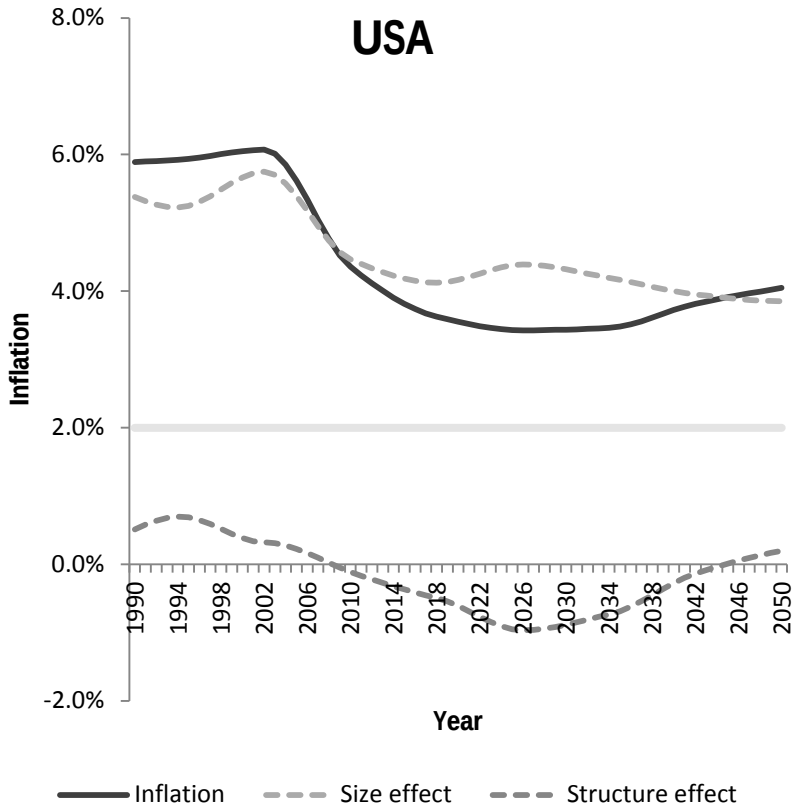
Self-assessed health:
Percent excellent, very good, good

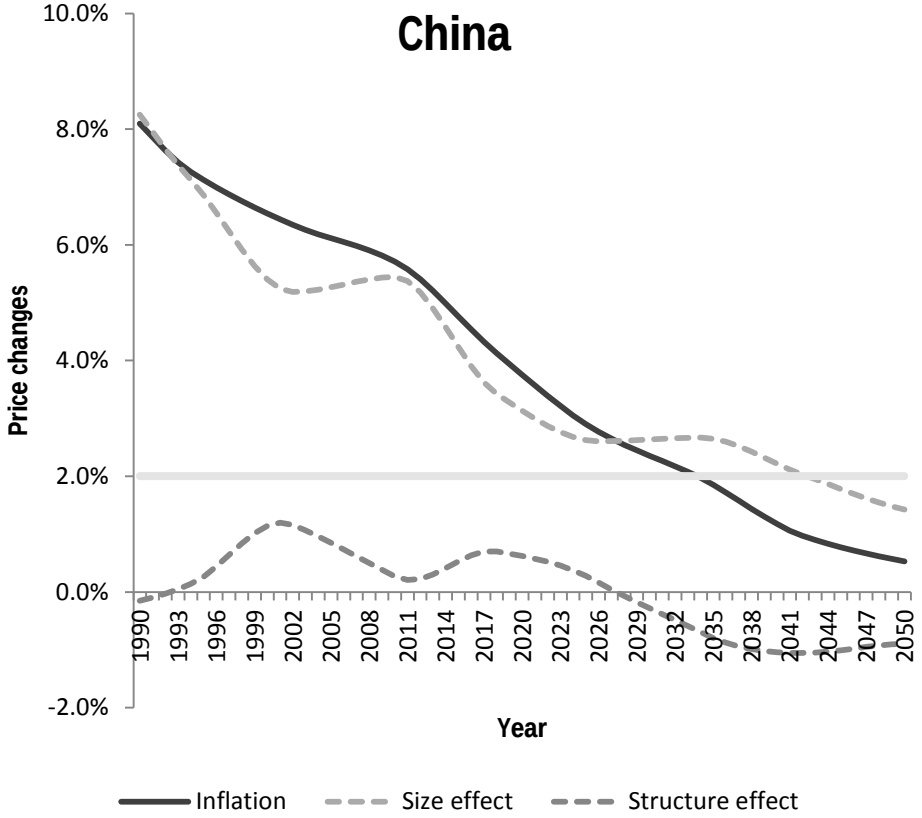
Functional health:
Percent without any limitation

Physical health:
Grip strength [kg]

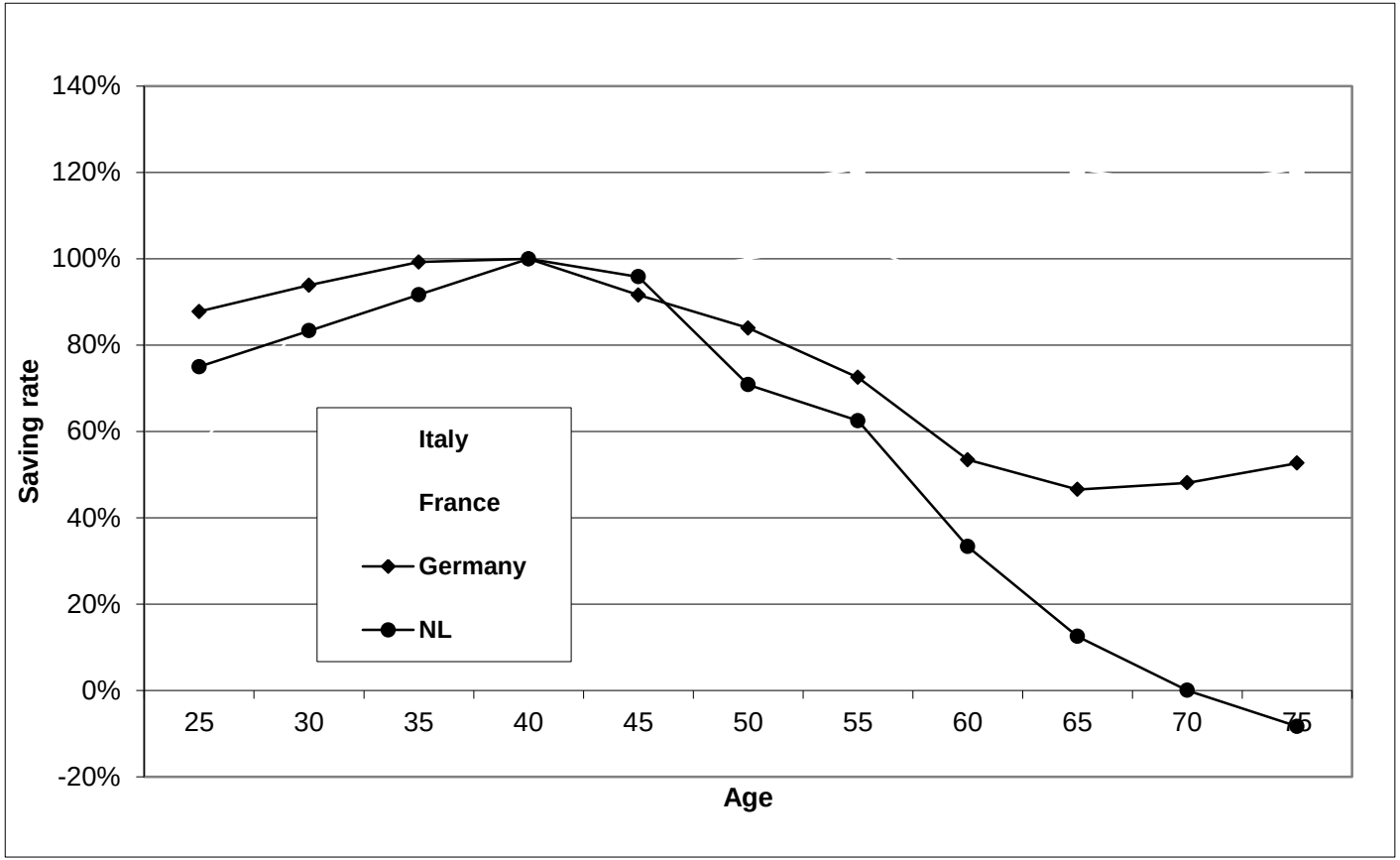

Germany
6.0%
5.0%
4.0%
3.0%
2.0%
1.0%
0.0%
-1.0%
-2.0%
Inflation
1990
1993
1996
1999
2002
2005
2008
2011
2014
2017
2020
2023
2026
2029
2032
2035
2038
2041
2044
2047
2050
Year
Inflation
Size effect
Structure effect


France
6.0%
5.0%
4.0%
3.0%
2.0%
1.0%
0.0%
-1.0%
-2.0%
Inflation
1990
1993
1996
1999
2002
2005
2008
2011
2014
2017
2020
2023
2026
2029
2032
2035
2038
2041
2044
2047
2050
Year
Inflation
Size effect
Structure effect


USA
8.0%
6.0%
4.0%
2.0%
0.0%
-2.0%
Inflation
1990
1994
1998
2002
2006
2010
2014
2018
2022
2026
2030
2034
2038
2042
2046
2050
Year
Inflation
Size effect
Structure effect


China
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
-2.0%
Price changes
1990
1993
1996
1999
2002
2005
2008
2011
2014
2017
2020
2023
2026
2029
2032
2035
2038
2041
2044
2047
2050
Year
Inflation
Size effect
Structure effect

1. **While all countries age, timing, speed and extent are very different across countries**
2. **Negative impact on growth is partially dampened by endogenous reactions (higher capital intensity, more foreign investment)**
3. **Moderate structural reforms need to (and can!) fill the remaining gap**
4. **Declining health and productivity do NOT prevent such reforms for the average worker**
5. **Ageing-induced deflation effects strongly depend on demographic characteristics of a country**


140%
120%
100%
80%
60%
40%
20%
0%
-20%
Saving rate
25
30
35
40
45
50
55
60
65
70
75
Age
Italy
France
Germany
NL