Appendix

A Computational Appendix

A.1 Household Problem

To simplify the description of the solution of the household model for given prices (wage and interest rate), transfers and social security payments, we focus on steady states and therefore drop the time index t and the country index i. Furthermore, we focus on a de-trended version of the household problem in which all variables x are transformed to $\tilde{x} = \frac{x}{A}$ where A is the technology level growing at the exogenous rate g. To simplify notation, we do not denote variables by the symbol $\tilde{\cdot}$ but assume that the transformation is understood. The de-trended version of the household problem is then given by

$$V(a,h,s,j) = \max_{c,\ell,e,a',h'} \left\{ u(c, 1-\ell-e) + \beta\varphi(1+g)^{\phi(1-\sigma)} V(a',h',s',j+1) \right\}$$

$$\text{s.t.}$$

$$a' = \frac{1}{1+g}\left((a+tr)(1+r)+y-c\right)$$

$$y = \begin{cases} \ell h w(1-\tau) & \text{if } j < jr \\ \rho w_{jr}(1+g)^{jr-j}\bar{h}_{jr}\frac{s_{jr}}{jr-1} & \text{if } j \geq jr \end{cases}$$

$$h' = g(h,e) \tag{14}$$

$$s' = s + \ell\frac{h}{\bar{h}} \tag{15}$$

$$\ell \in [0,1], \quad e \in [0,1].$$

Here, $g(h,e)$ is the human capital technology. Let $\tilde{\beta} = \beta\varphi(1+g)^{\phi(1-\sigma)}$ be the transformation of the discount factor. Using the budget constraints, now rewrite the above as

$$V(a,h,s,j) = \max_{c,\ell,e,a',s',h'} \left\{ u(c,1-\ell-e) + \tilde{\beta} V\left(\frac{1}{1+g}\left((a+tr)(1+r)+y-c\right), g(h,e), s+\ell\frac{h}{\bar{h}}, j+1\right)\right\}$$

$$\text{s.t.}$$

$$\ell \geq 0.$$

where we have also replaced the bounded support of time investment and leisure with a one-side constraint on ℓ because the upper constraints, $\ell = 1$, respectively $e = 1$, and the lower constraint, $e = 0$, are never binding due to Inada conditions on the utility function and the functional form of the human capital technology (see below). Denoting by μ_ℓ the Lagrange multiplier on the inequality constraint for ℓ, we can write the first-order conditions as

$$c: \quad u_c - \tilde{\beta}\frac{1}{1+g}V_{a'}(a',h',s';j+1) = 0 \tag{16a}$$

$$\ell: \quad -u_{1-\ell-e} + \tilde{\beta}\left[hw(1-\tau)\frac{1}{1+g}V_{a'}(\cdot) + V_{s'}(\cdot)\frac{h}{\bar{h}}\right] + \mu_\ell = 0 \tag{16b}$$

$$e: \quad -u_{1-\ell-e} + \tilde{\beta}g_e V_{h'}(a',h',s',j+1) = 0 \tag{16c}$$

and the envelope conditions read as

$$a: \quad V_a(a,h,s,j) = \tilde{\beta}\frac{1+r}{1+g}V_{a'}(a',h',s',j+1) \tag{17a}$$

$$h: \quad V_h(\cdot) = \begin{cases} \tilde{\beta}\left(\ell w(1-\tau)\frac{1}{1+g}V_{a'}(\cdot) + g_h V_{h'}(\cdot) + V_{s'}(\cdot)\ell\frac{1}{\bar{h}}\right) & \text{if } j < jr \\ \tilde{\beta}V_{h'}(\cdot)g_h & \text{if } j \geq jr \end{cases} \tag{17b}$$

$$s: \quad V_s(\cdot) = \begin{cases} \tilde{\beta}V_{s'}(\cdot) & \text{if } j < jr \\ \tilde{\beta}\left(V_{s'}(\cdot) + \rho w_{jr}(1+g)^{jr-j}\bar{h}_{jr}\frac{1}{jr-1}\frac{1}{1+g}V_{a'}\right) & \text{if } j \geq jr \end{cases} \tag{17c}$$

Note that for the retirement period, i.e. for $j \geq jr$, equations (16b) and (16c) are irrelevant and equation (17b) has to be replaced by

$$V_h(a,h,s,j) = \tilde{\beta}g_h V_{h'}(a',h',s',j+1).$$

From (16a) and (17a) we get

$$V_a = (1+r)u_c \tag{18}$$

and, using the above in (16a), the familiar inter-temporal Euler equation for consumption follows as

$$u_c = \tilde{\beta}\frac{1+r}{1+g}u_{c'}. \tag{19}$$

From (16a) and (16b) we get the familiar intra-temporal Euler equation for leisure,

$$u_{1-\ell-e} = u_c h\left(w(1-\tau) + (1+g)\frac{V_{s'}}{V'_{a'}}\frac{1}{\bar{h}}\right) + \mu_\ell. \tag{20}$$

From the human capital technology (3) we further have

$$g_e = \xi\psi(eh)^{\psi-1}h \tag{21a}$$

$$g_h = (1-\delta^h) + \xi\psi(eh)^{\psi-1}e. \tag{21b}$$

We loop backwards in j from $j = J-1,\ldots,0$ by taking an initial guess of $[c_J, h_J]$ as given and by initializing $V_{a'}(\cdot,J) = V_{h'}(\cdot,J) = 0$. During retirement, that is for all ages $j \geq jr$, our solution procedure is by standard backward shooting using the first-order conditions. However, during the period of human capital formation, that is for all ages $j < jr$, the first order conditions would not be sufficient if the problem is not a convex-programming problem. And thus, our backward shooting algorithm will not necessarily find the true solution. In fact this may be the case in human capital models such as ours because the effective wage rate is endogenous (it depends on the human capital investment decision). For a given initial guess $[c_J, h_J]$ we therefore first compute a solution via first-order conditions and then, for each age $j < jr$, we check whether this is the unique solution. As an additional check, we consider variations of initial guesses of $[c_J, h_J]$ on a large grid. In all of our scenarios we never found any multiplicities.

The details of our steps are as follows:

1. In each j, $h_{j+1}, V_{a'}(\cdot, j+1), V_{h'}(\cdot, j+1)$ are known.
2. Compute u_c from (16a).
3. For $j \geq jr$, compute h_j from (3) by setting $e_j = \ell_j = 0$ and by taking h_{j+1} as given and compute c_j directly from equation (25) below.
4. For $j < jr$:
   (a) Assume $\ell \in [0,1)$ so that $\mu_\ell = 0$.
   (b) Combine (3), (16b), (16c) and (21a) to compute h_j as

$$h_j = \frac{1}{1-\delta^h}\left(h_{j+1} - \xi\left(\frac{\xi\psi(1+g)V_{h'}(\cdot)}{w(1-\tau)V_{a'}(\cdot)+(1+g)V_{s'}\frac{1}{\bar{h}}}\right)^{\frac{\psi}{1-\psi}}\right). \tag{22}$$

   (c) Compute e from (3) as

$$e_j \;= \tfrac{1}{h_j}\left(\tfrac{h_{j+1}-h_j(1-\delta^h)}{\xi}\right)^{\frac{1}{\psi}}. \tag{23}$$

   (d) Calculate $lcr_j = \frac{1-e_j-\ell_j}{c_j}$, the leisure to consumption ratio from (20) as follows: From our functional form assumption on utility marginal utilities are given by

$$u_c = \left(c^\phi(1-\ell-e)^{1-\phi}\right)^{-\sigma}\phi c^{\phi-1}(1-\ell-e)^{1-\phi}$$
$$u_{1-\ell-e} = \left(c^\phi(1-\ell-e)^{1-\phi}\right)^{-\sigma}(1-\phi)c^{\phi}(1-\ell-e)^{-\phi}$$

   hence we get from (20) the familiar equation:

$$\frac{u_{1-\ell-e}}{u_c} = hw(1-\tau) = \frac{1-\phi}{\phi}\frac{c}{1-\ell-e},$$

   and therefore:

$$lcr_j = \frac{1-e_j-\ell_j}{c_j} = \frac{1-\phi}{\phi}\frac{1}{hw(1-\tau)}. \tag{24}$$

   (e) Next compute c_j as follows. Notice first that one may also write marginal utility from consumption as

$$u_c = \phi c^{\phi(1-\sigma)-1}(1-\ell-e)^{(1-\sigma)(1-\phi)}. \tag{25}$$

   Using (24) in (25) we then get

$$\begin{aligned} u_c &= \phi c^{\phi(1-\sigma)-1}(lcr\cdot c)^{(1-\sigma)(1-\phi)} \\ &= \phi c^{-\sigma}\cdot lcr^{(1-\sigma)(1-\phi)}. \end{aligned} \tag{26}$$

   Since u_c is given from (16a), we can now compute c as

$$c_j = \left(\frac{u_{c_j}}{\phi\cdot lcr_j^{(1-\sigma)(1-\phi)}}\right)^{-\frac{1}{\sigma}}. \tag{27}$$

(f) Given c_j, e_j compute labor, ℓ_j, as

$$\ell_j = 1 - lcr_j \cdot c_j - e_j.$$

(g) If $\ell_j < 0$, set $\ell_j = 0$ and iterate on h_j as follows:

i. Guess h_j

ii. Compute e as in step 4c.

iii. Noticing that $\ell_j = 0$, update c_j from (25) as

$$c = \left(\frac{u_c}{\phi(1-e)^{(1-\sigma)(1-\phi)}} \right)^{\frac{1}{\phi(1-\sigma)-1}}.$$

iv. Compute μ_ℓ from (16b) as

$$\mu_\ell = u_{1-\ell-e} - \tilde{\beta} \left[hw(1-\tau) \frac{1}{1+g} V_{a'}(\cdot) + V_{s'}(\cdot) \frac{h}{\bar{h}} \right]$$

v. Finally, combining equations (16b), (16c) and (21a) gives the following distance function f

$$f = e - \left(\frac{\tilde{\beta}[\cdot] + \mu_\ell}{\tilde{\beta} V_{h'}(\cdot) \xi \psi h^{\psi}} \right)^{\frac{1}{\psi - 1}}, \tag{28}$$

where e is given from step 4(g)ii. We solve for the root of f to get h_j by a non-linear solver iterating on steps 4(g)ii through 4(g)v until convergence.

5. Update as follows:

(a) Update V_a using either (17a) or (18).

(b) Update V_h using (17b).

Next, loop forward on the human capital technology (3) for given h_0 and $\{e_j\}_{j=0}^{J}$ to compute an update of h_J denoted by h_J^n. Compute the present discounted value of consumption, PVC, and, using the already computed values $\{h_j^n\}_{j=0}^{J}$, compute the present discounted value of income, PVI. Use the relationship

$$c_0^n = c_0 \cdot \frac{PVI}{PVC} \tag{29}$$

to form an update of initial consumption, c_0^n, and next use the Euler equations for consumption to form an update of c_J, denoted as c_J^n. Define the distance functions

$$g_1(c_J, h_J) = c_J - c_J^n \tag{30a}$$

$$g_2(c_J, h_J) = h_J - h_J^n. \tag{30b}$$

In our search for general equilibrium prices, constraints of the household model are occasionally binding. Therefore, solution of the system of equations in (30) using Newton based methods, e.g., Broyden's method, is instable. We solve this problem by a nested

Brent algorithm, that is, we solve two nested univariate problems, an outer one for c_J and an inner one for h_J.

Check for uniqueness: Observe that our nested Brent algorithm assumes that the functions in (30) exhibit a unique root. As we adjust starting values $[c_J, h_J]$ with each outer loop iteration we thereby consider different points in a variable box of $[c_J, h_J]$ as starting values. For all of these combinations our procedure always converged. To systematically check whether we also always converge to the unique optimum, we fix, after convergence of the household problem, a large box around the previously computed $[c_J, h_J]$. Precisely, we choose as boundaries for this box $\pm 50\%$ of the solutions in the respective dimensions. For these alternative starting values we then check whether there is an additional solution to the system of equations (30). We never detected any such multiplicities.

A.2 The Aggregate Model

To solve the open economy general equilibrium transition path we proceed as follows: for a given $r \times 1$ vector $\vec{\Psi}$ of structural model parameters, we first solve for an "artificial" initial steady state in period $t = 0$ which gives initial distributions of assets and human capital. We thereby presume that households assume prices to remain constant for all periods $t \in \{0, \dots, T\}$ and are then surprised by the actual price changes induced by the transitional dynamics. Next, we solve for the final steady state of our model which is reached in period T and supported by our demographic projections. In the sequel, the superscripts c and o refer to the closed or open economy and M denotes the number of regions.

For the closed economy steady state, for each region j we solve for the equilibrium of the aggregate model by iterating on the $m^c \times 1$ steady state vector $\vec{P}^c_{ss,j} = \left[p_{1,j}, \dots, p_{m^c,j}\right]'$. $p_{1,j}$ is the capital intensity, $p_{2,j}$ are transfers (as a fraction of wages), $p_{3,j}$ are social security contribution (or replacement) rates and $p_{4,j}$ is the average human capital stock for region j. We perform this procedure separately for both world regions.

To compute the open economy steady state we solve for the equilibrium of the aggregate model by iterating on the $m^o \times 1$ steady state vector $\vec{P}^o_{ss} = \left[p_1, \dots, p_{m^o,j}\right]'$ where the number of variables is given by $m^o = M(m^c - 1) + 1$. p_1 is the *common (world)* capital intensity, $p_{2,j}$ are transfers (as a fraction of wages), $p_{3,j}$ are social security contribution (or replacement) rates and $p_{4,j}$ is the average human capital stock for region j. Notice that all elements of $\vec{P}^c_{ss}$ and $\vec{P}^o_{ss}$ are constant in the steady state.

Solution for the steady states for each *closed* region j (where we drop the region index for brevity) of the model involves the following steps:

1. In iteration q for a guess of $\vec{P}^{c,q}_{ss}$ solve the household problem.
2. Update variables in $\vec{P}^c_{ss}$ as follows:
   (a) Aggregate across households to get aggregate assets and aggregate labor supply to form an update of the capital intensity, p^n_1.
   (b) Calculate an update of bequests to get p^n_2.
   (c) Using the update of labor supply, update social security contribution (or replacement) rates to get p^n_3.

(d) Use labor supply and human capital decisions to form an update of the average human capital stock, p_4^n.

3. Collect the updated variables in $\vec{P}_{ss}^{c,n}$ and notice that $\vec{P}_{ss}^{c,n} = H(\vec{P}_{ss}^c)$ where H is a vector-valued non-linear function.
4. Define the root-finding problem $G(\vec{P}_{ss}^c) = \vec{P}_{ss}^c - H(\vec{P}_{ss}^c)$ and iterate on $\vec{P}_{ss}^c$ until convergence. We use Broyden's method to solve the problem and denote the final approximate Jacobi matrix by B_{ss}.

Solution for the steady states of the *open* economy of the model involves the following steps:

1. In iteration q for a guess of $\vec{P}_{ss}^{o,q}$ solve the household problem.
2. Update variables in $\vec{P}_{ss}^o$ as follows:
   (a) Use the guess for the global capital intensity to compute the capital stock for region j compatible with the open economy, perfect competition setup. Use this aggregate capital stock with the aggregate labor supply to form an update of the global capital intensity, p_1^n.
   (b) Calculate an update of bequests to get $p_{2,j}^n \;\; \forall j$.
   (c) Using the update of labor supply, update social security contribution (or replacement) rates to get $p_{3,j}^n \;\; \forall j$.
   (d) Use labor supply and human capital decisions to form an update of the average human capital stock, $p_4^n \;\; \forall j$.
3. Collect the updated variables in $\vec{P}_{ss}^{o,n}$ and notice that $\vec{P}_{ss}^{o,n} = H(\vec{P}_{ss}^o)$ where H is a vector-valued non-linear function.
4. Define the root-finding problem $G(\vec{P}_{ss}^o) = \vec{P}_{ss}^o - H(\vec{P}_{ss}^o)$ and iterate on $\vec{P}_{ss}^o$ until convergence. We use Broyden's method to solve the problem and denote the final approximate Jacobi matrix by B_{ss}.

Next, we solve for the transitional dynamics for each of the closed economies (where we again drop the region index j) by the following steps:

1. Use the steady state solutions to form a linear interpolation to get the starting values for the $m^c(T-2)\times 1$ vector of equilibrium prices, $\vec{P}^c = [\vec{p}_1', \ldots, \vec{p}_{m^c}']'$, where $p_i, i = 1, \ldots, m^c$ are vectors of length $(T-2)\times 1$.
2. In iteration q for guess $\vec{P}^{c,q}$ solve the household problem. We do so by iterating backwards in time for $t = T-1, \ldots, 2$ to get the decision rules and forward for $t = 2, \ldots, T-1$ for aggregation.
3. Update variables as in the steady state solutions and denote by $\tilde{\vec{P}}^c = H(\vec{P}^c)$ the $m^c(T-2)\times 1$ vector of updated variables.
4. Define the root-finding problem as $G(\vec{P}^c) = \vec{P}^c - H(\vec{P}^c)$. Since T is large, this problem is substantially larger than the steady state root-finding problem and we use the Gauss-Seidel-Quasi-Newton algorithm suggested in Ludwig (2007) to form and update guesses of an approximate Jacobi matrix of the system of $m^c(T-2)$ non-linear equations. We initialize these loops by using a scaled up version of B_{ss}.

We then solve for the transitional dynamics for the open economy setup by the following steps:

1. Use the equilibrium transition solutions from the closed economies to get the starting values for the $m^o(T-\tilde{t}-2)\times 1$ vector of equilibrium prices, $\vec{P}^o = [\vec{p}_1', \ldots, \vec{p}_{m^o}']'$, where $p_i, i = 1, \ldots, m^o$ are vectors of length $(T-\tilde{t}-2)\times 1$ where $\tilde{t}$ is the year of opening up.
2. In iteration q for guess $\vec{P}^{o,q}$ solve the household problem. We do so by iterating backwards in time for $t = T-\tilde{t}-1, \ldots, 2$ to get the decision rules and forward for $t = 2, \ldots, T-\tilde{t}-1$ for aggregation. For agents already living in year $\tilde{t}$ we use their holdings of physical assets and human capital from year $\tilde{t}$ as state variables and solve their household problem only for their remaining lifetime.
3. We then proceed as in the case for the closed economies (updating) but define the root-finding problem now for the open economy as $G(\vec{P}^o) = \vec{P}^o - H(\vec{P}^o)$ which we solve by the same method as above.

B Simple Model: Reallocation of Time over the Life Cycle

We want to understand theoretically the effects on labor supply and human capital at the intensive and extensive margin. We further decompose household's reaction when we keep prices and policy instruments fixed — i.e., wages, interest rates, the contribution rate and pension payments — and when we allow for general equilibrium feedback.

To understand the mechanisms theoretically, consider a simplified two-period version of the model used in the quantitative part. Households maximize utility

$$\begin{aligned} U &= \phi \ln(c_1) + (1-\phi)\ln(1-\ell_1) + \beta\left(\phi \ln(c_2) + (1-\phi)\mathbb{1}\ln(1-\ell_2)\right) \\ \text{s.t.} & \\ c_1 + \frac{c_2}{1+r} &= w_1\ell_1(1-e) + \frac{1}{1+r}(w_2\ell_2 h(e)\mathbb{1} + (1-\mathbb{1})p) \end{aligned}$$

with standard notation. $h(e) \geq 1$ is a strictly concave human capital production function where e is time investment which has to be made in the first period. $\mathbb{1}$ is an indicator function taking on the value of 1 if the agent is working in the last (second) period and 0 if he is retired and receives a pension p. Hence, changing the value of the indicator function from 0 to 1 mimics the pension reform of the quantitative model in a consistent way. Without loss of generality we normalize $w_1 = 1$. Denote first-period labor supply in the benchmark model — where $\mathbb{1} = 0$ — by ℓ_1^{BM} and labor supply with the higher retirement age — where $\mathbb{1} = 1$ — by ℓ_1^{PR}. Then, the difference in labor supply after increasing the retirement age is

$$\ell_1^{PR} - \ell_1^{BM} = \frac{\beta(1-\phi)^2}{(1+\beta)(1+\beta\phi)} - \frac{1-\phi}{R(1+\beta)}\left(w_2\frac{h(e^*)}{1-e^*} - p\frac{1+\beta}{1+\beta\phi}\right) \tag{31}$$

with e^* being the equilibrium investment into human capital. This means that — keeping human capital constant — increasing the retirement age can in general either increase or decrease labor supply in the first period. Labor supply in the first period increases if

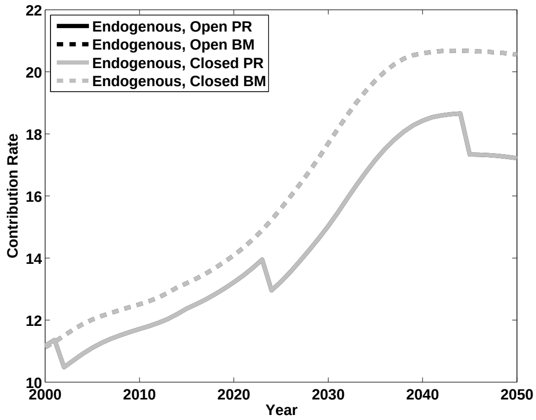
$$\frac{\beta(1-\phi)}{(1+\beta\phi)} > \frac{1}{R}\left(w_2\frac{h(e^*)}{1-e^*} - p\frac{1+\beta}{1+\beta\phi}\right)$$

whereby the right-hand-side of this condition can be interpreted as reflecting the (adjusted) difference between human capital wealth — i.e., the discounted value of future income — between the model without retirement — in term $w_2\frac{h(e^*)}{1-e^*}$ — and with retirement — in term $p\frac{1+\beta}{1+\beta\phi}$. If future wages are relatively small, i.e., if $w_2\frac{h(e^*)}{1-e^*} < p\frac{1+\beta}{1+\beta\phi}$, then the discounted value of future income in case of the reform is small such that labor supply in the first period increases. Effects are however ambiguous if future labor income is sufficiently high. An unambiguous finding is that allowing for endogenous human capital increases $\frac{h(e^*)}{1-e^*}$ and therefore decreases labor supply when the retirement age increases.

C Supplementary Appendix: Additional Results (Constant Replacement Rate)

C.1 Aggregate Variables

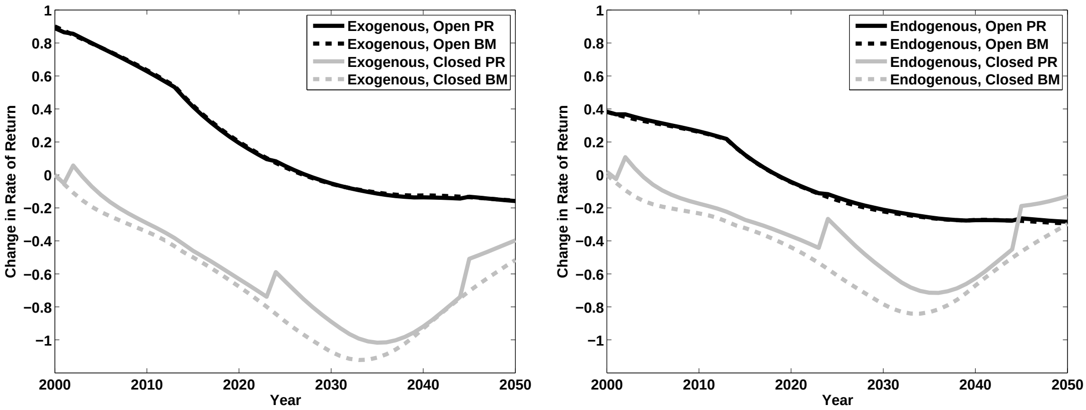
Figure 11: Adjustment of Contribution Rates



Notes: "Open" and "Closed" refer to the results obtained from the closed and open economy versions. "PR" and "BM" denote the pension reform and benchmark retirement scenario. All results obtained with constant contribution rate, ρ.

Figure 12: Rate of Return [Index]: Constant Replacement Rates

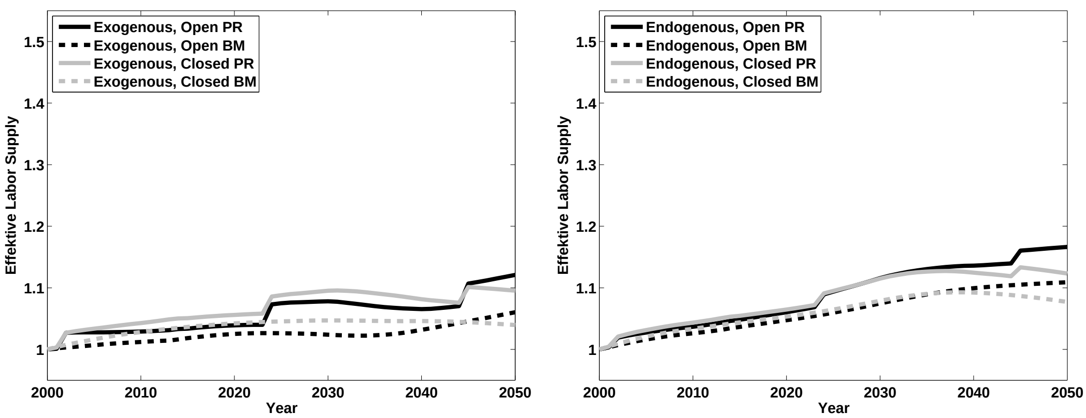
(a) Exogenous Human Capital (b) Endogenous Human Capital



Notes: “Open” and “Closed” refer to the results obtained from the closed and open economy versions. “PR” and “BM” denote the pension reform and benchmark retirement scenario. All results obtained with constant replacement rate ρ.

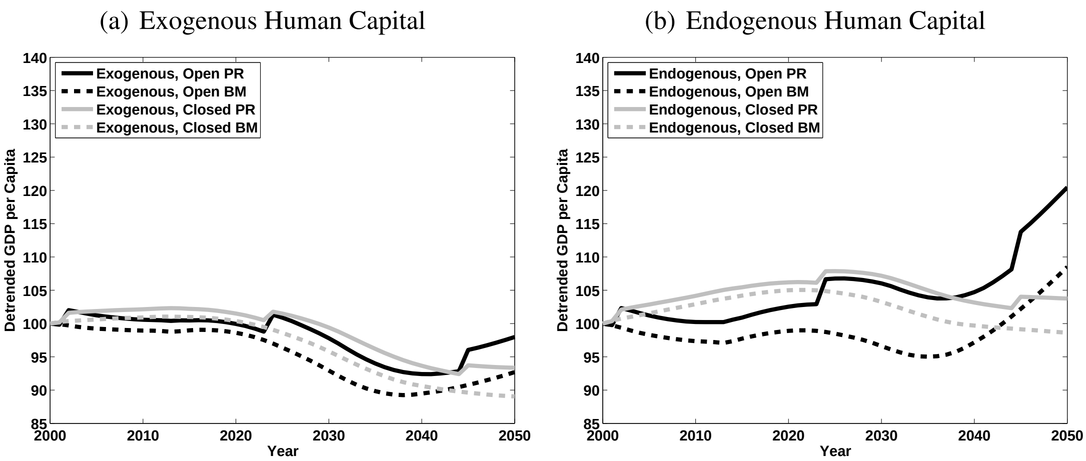
Figure 13: Effective Labor Supply [Index]: Constant Replacement Rates

(a) Exogenous Human Capital (b) Endogenous Human Capital



Notes: “Open” and “Closed” refer to the results obtained from the closed and open economy versions. “PR” and “BM” denote the pension reform and benchmark retirement scenario. All results obtained with constant replacement rate ρ.

Figure 14: Detrended GDP per Capita [Index]: Constant Replacement Rates

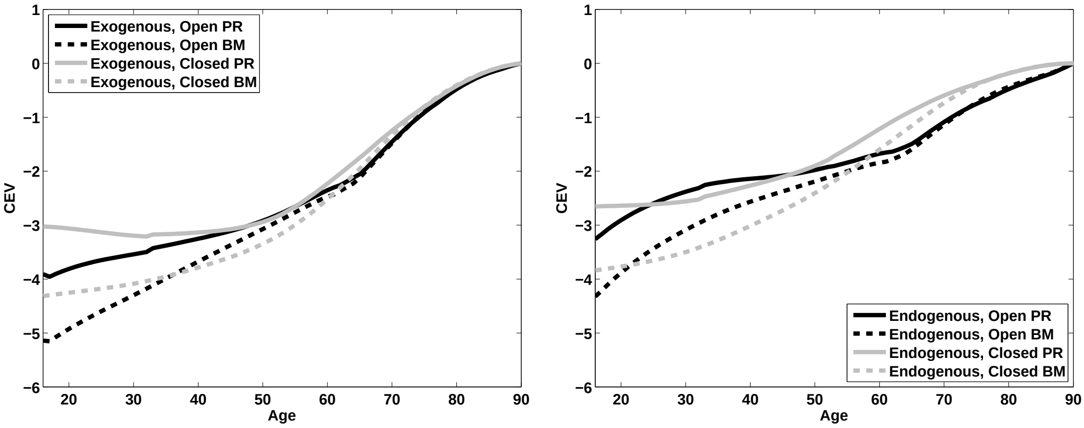


Notes: "Open" and "Closed" refer to the results obtained from the closed and open economy versions. "PR" and "BM" denote the pension reform and benchmark retirement scenario. All results obtained with constant replacement rate ρ.

C.2 Welfare of Generations Alive in 2010

Figure 15: Consumption Equivalent Variation of Agents Alive in 2010: Constant Replacement Rates

(a) Exogenous Human Capital (b) Endogenous Human Capital



Notes: "Open" and "Closed" refer to the results obtained from the closed and open economy versions. "PR" and "BM" denote the pension reform and benchmark retirement scenario. All results obtained with constant contribution rate, ρ.

Table 5: Welfare Gains / Losses - Newborns 2010: Constant Replacement Rates

Pension System	Open		Closed	
	Endog.	Exog.	Endog.	Exog.
BM	-4.3%	-5.1%	-3.8%	-4.3%
PR	-3.3%	-3.9%	-2.7%	-3.0%

Notes: "Endog." and "Exog." refer to the endogenous and exogenous human capital production profile. "Open" and "Closed" refer to the results obtained from the closed and open economy versions. "PR" and "BM" denote the pension reform and benchmark retirement scenario. All results obtained with constant contribution rate, ρ.

Table 6: Maximum Welfare Losses - Agents alive 2010: Constant Replacement Rates

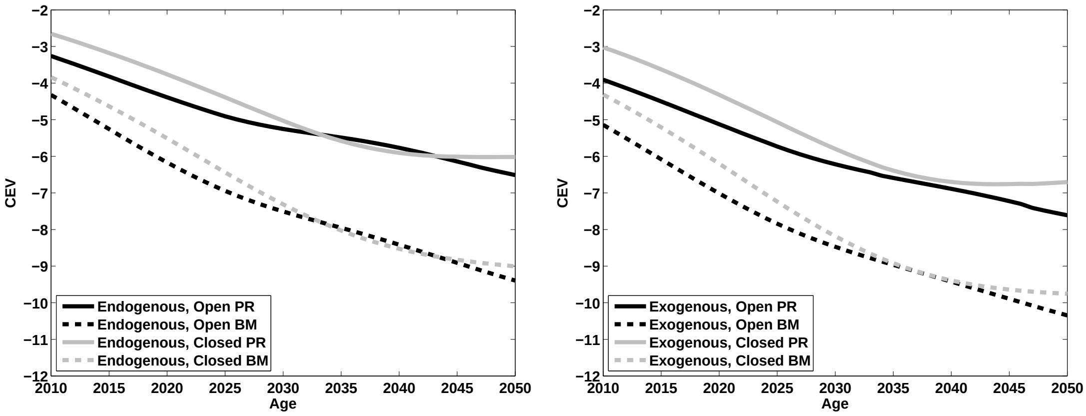
Pension System	Open		Closed	
	Endog.	Exog.	Endog.	Exog.
BM	-4.3%	-5.2%	-3.8%	-4.3%
PR	-3.3%	-4.0%	-2.7%	-3.2%

Notes: "Endog." and "Exog." refer to the endogenous and exogenous human capital production profile. "Open" and "Closed" refer to the results obtained from the closed and open economy versions. "PR" and "BM" denote the pension reform and benchmark retirement scenario. All results obtained with constant contribution rate, ρ.

C.3 Welfare of Future Generations (Benchmark Model & Pension Reform)

Figure 16: Consumption Equivalent Variation of Future Generations: Constant Replacement Rate

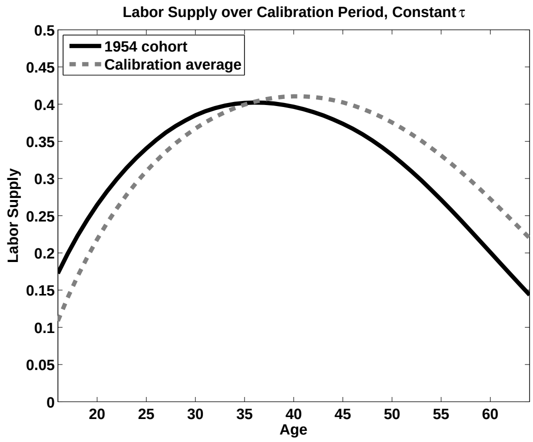
(a) Endogenous Human Capital (b) Exogenous Human Capital



Notes: “Open” and “Closed” refer to the results obtained from the closed and open economy versions. “PR” and “BM” denote the pension reform and benchmark retirement scenario. All results obtained with constant contribution rate, ρ.

C.4 Life Cycle Labor Supply for Calibration Period

Figure 17: Life Cycle Labor Supply for Calibration Period: Constant Contribution Rate



Notes: "Calibration average" refers to the unweighted average of the labor supply profiles during the calibration period and "1954 cohort" refers to the life-cycle labor supply of the cohort born in 1954.