

THOUGHT PROVOKING IDEAS OF THE GLOBAL ESSAY COMPETITION 2022

Restructured Incentives: How Retirement Pensions can Become a Mechanism to Guide Environmentally Sustainable Decisions and Contribute to Solving the Intergenerational Conflict of Interests

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Carpe Diem in our backyard

We live in a world of infinite aspirations and finite resources. Imagine being confronted with a choice between giving a part of your money to benefit a community in a distant corner of the world, or donating it to crime prevention in your hometown. What would you choose? Now, imagine having the choice between consumption today to maximise your utility, and foregoing that urge in order to benefit some generations in the future. What would your decision be?

In the first scenario, most individuals, organizations, and governments would choose the latter. That is because the local donation provides a direct incentive – the more money donated to crime prevention in your area, the safer and more harmonious your hometown may be. This direct benefit to the local donor makes extensive charity abroad irrational in the context of limited funds. That is why international aid has always been limited.

The recent closure of the UK's Department for International Development in the midst of a global pandemic by Boris Johnson has been partly motivated by that reasoning, and partly because caring about your own backyard is more politically effective than abstract notions of duty, altruism, or responsibility.

In the second scenario, hard facts show a clear picture of humanity's choices: since 2010, 10 million hectares of forests have been cut down globally each year, while global CO2 emissions from fossil fuels alone have exceeded 35 billion tonnes, up by 33 billion since 1900 (Ritchie, Roser; 2021). Especially the Baby Boomer and Generation X have contributed to environmental degradation through their prosperous consumerism, although we (Millennials) aren't much better. There is perhaps a reason behind the mockery that we will never afford to buy a house because of our avocado toasts and overpriced coffee expenditures (Levine, 2017).

Such clear preference for the present can be partially explained by human's survival and self-preservation instincts, partly by the 'carpe diem' philosophy that flourishes in turbulent times, and even by the corporate finance theory of time-value of money, where one dollar today is worth more than one dollar tomorrow, and consequently consumption now is more valuable than consumption in the future.

The second dilemma was at the heart of the COP26 negotiations in 2021, with least developed countries asking whether prioritising ecologically sustainable policies will not hinder their industrialization process and poverty alleviation efforts. Is it right to prioritize ecologically sustainable development, when still 9% of the world population is living in extreme poverty (on less than \$1.90 a day) – a statistic some would argue is not worth 'sustaining'? More generally, however, it is a dilemma between generations. On one hand, present generations have rational reasons to consume today and make their life on Earth as enjoyable while it lasts. On the other hand, there is scientific evidence that doing so jeopardizes the future generations' ability to lead healthy lives by destroying Earth's ecosystems in the process. Harry Truman once asked for a one-handed economist, because seeing both sides to the argument complicates the solution. But it is the well-rounded understanding that allows us to design constructive frameworks that might lead to a win-win situation.

Contracts are not enough

The question about what should be written into a new intergenerational contract assumes that such a contract can resolve the intergenerational conflict. A recent increase in papers advocating for a new intergenerational contract by leading thinkers and NGOs also supports that assumption. For example, The Intergenerational Foundation, a UK-based

charity, advocates that an intergenerational justice can be achieved if public policy is formed from behind the Rawlsian 'veil of ignorance'. They arrive at two principles that they claim will ensure intergenerational justice: i) just savings, to improve the lot of each future generation; and ii) just distribution, to eliminate unfair inequalities between living generations (Tozer, 2019). Minouche Shafik, current Dean of the London School of Economics, has also recently published a book on the new social contract, where she argues that it should be built upon three key principles: i) security for all; ii) maximum investment in capability; and iii) efficient and fair sharing of risks. (Shafik, 2021). Without wanting to diminish the value of those calls to action, it is quite easy to say that we need to address large income inequalities, or provide better security to all. The pressing question is not 'what' but 'how', and I am afraid contracts are not enough. Legal contracts work only thanks to the power of the threat of punishment (Smith, 1997). In other words, in a situation where the cost of abiding to a contract is larger than the benefit of abiding to that contract, only the threat of punishment stops people from breaking legal agreements. In contrast, social contracts work only when there is a general duty of responsibility for others within society. If grandparents feel no responsibility for their grandchildren, or children for their parents, then an effective welfare state that provides security for all, or a just risk-sharing of environmental impacts is very difficult to be achieved.

For an intergenerational contract to be enforced, younger generations must have the ability to punish older ones who have disadvantaged future generations through their actions. That is impossible for two main reasons. First, the young have a weaker political power in democratic regimes due to the changing demographics. In a political system that functions under majority rule, the young have increasingly less power as

developed societies continue to age, and fertility rates continue to fall. Second, those who are responsible for the largest environmental footprint are either so rich and powerful that they are 'untouchable' – like Jeff Bezos², or are dead by now – like the leaders of the Industrial Revolution in 1830s, and therefore cannot be punished. With regards to the prerequisites for the enforcement of a social contract, the picture is also rather bleak. Divorce rates in the western world are at record highs, diminishing the family-centric structure of society (Roser, 2020). Intra-national income inequalities are at record highs, polarizing societies (Stiglitz, 2012). Migration flows from Middle East and Africa and in Central America have also intensified in recent years, fuelling the narrative of 'us' versus 'them'. Without a deeply ingrained feeling of unity at family level, social level, or national level, the sense of responsibility is absent, and so is a working social contract.

Incentives

Adam Smith in *The Wealth of Nations* argued that human self-interest is the strongest force that can be used for the common good: 'It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity but to their self-love, and never talk to them of our own necessities but of their advantages.' (Smith, 1776; ch.2) Even though the invisible hand can be criticized for unequally distributing free-market wealth, the underlying concept explaining human behaviour is relevant 250 years later: incentives matter.

Incentives in action: restructuring pensions

One of the most direct 'intergenerational agreements' that currently works is the retirement pension scheme. People in the labour force pay a percentage of their current incomes into a pension programme, which are directly redistributed to fund current pensioners. In exchange, the contributors are promised to receive their pensions after retirement, funded by future generation of workers. In simplistic terms, the value of the pension (P) usually depends on the duration of employment (t), salary (s), and risk the job poses to one's health (r).

Such a pension allocation mechanism does not account for the environmental impact that the individual has had over the course of their employment. This is problematic for two reasons: First, a person working in an environmentally harmful but lucrative industry (e.g. logging) will receive a higher pension than a person working in an environmentally-conscious but less lucrative job (e.g. an ocean-cleaning NGO). Thus, such pension structure encourages the most lucrative career choices, which to date have unfortunately been positively correlated with negative environmental impacts. Second, it is unjust for the younger generations that contribute their current earnings to pay for that pension. In this case, the employed young will contribute more money to the pension of the logger, than that of the NGO worker, even though the logger has directly contributed to deforestation throughout his career and indirectly to environmental degradation that makes the young lives harder, whereas the NGO workers work has had the opposite impact.

Changing the way pensions are distributed would change the incentives that inform individuals employment choices, and would make the funding of pensions less unjust for younger workers.

To take advantage of the power of incentives in the ‘intergenerational agreement’ of pensions schemes, I propose that the value of the pension (p) was not just a function of employment duration (t), salary (s), and health risk (r), but also a function of net greenhouse gas emissions (GHG) of a given company per capita ($\frac{GHGE_n}{no. \text{ of employees}_n}$), adjusted for the seniority of that employee, proxied by the Gini Coefficient (gl). In short, $P\left(t_n, s_n, r_n, \frac{GHGE_n}{no. n}(gl)\right)$.

Greenhouse gas emissions tracking is becoming an ESG requirement for companies, driven by credit rating agencies, investors, and customer preferences. As the tracking technologies continue to improve, GHG emissions should be used as a fundamental indicator of environmental impact of companies, and a lens through which companies’ management teams can be assessed and held accountable.

Such a formula for pensions distribution would be fairer to the older generation receiving pensions, as well as the younger generation that funds them. On top of the usual variables that determine how much a person receives in their retirement pay-outs, it would:

- i. incentivise people to choose employers who mitigate their negative environmental impact;
- ii. in case where an alternative choice is impossible due to the skill level and necessity of employment (e.g. bus drivers, cleaning staff at oil companies), it would ensure that lower-skilled workers, or those without a decision-making role within the company are not punished as much as the management, but their GHG-related pension ‘discount’ is adjusted for their position and earnings;
- iii. put the financial burden in the form of heavily ‘discounted’ retirement pensions on the leadership of respective companies, incentivising them to lead systemic change that promotes environmental sustainability;

- iv. satisfy the younger generations paying for the pensions through their own work, by introducing an element of environmental equity, whereby retired individuals are rewarded for their work adjusted for the environmental side effects of their past employment.

A counter-argument to the third point may be that senior executives and C-suite managers do not rely on pension pay-outs for their retirement, but have amassed enough wealth to live off capital gains on their stock-market investments, real-estate, and other accumulated assets. In that case, that financial incentive to align their company’s operations with environmental considerations would be minimal, if non-existent. Whether this is entirely true or not, this raises an important point: one incentive is never enough.

The above incentive structure should be complemented by redesigned incentives not just at an individual level, but at a business level. For example, to motivate the executive management of public companies, financial valuation account for GHG emissions, and companies’ market capitalization should be adjusted accordingly. Such valuation methods are starting to gain support in the business world, as discussed by Sir Ronald Cohen in his book ‘Impact’, and I am confident that it is just a matter of time before such GHG emissions adjustment practices will become. Alternatively, the level of corporate tax could also be a function of a company’s GHG emissions. Opportunities to restructure incentives are endless.

Conclusion

To address the intergenerational conflict with regards to climate change, as well as any other conflicts of interest, it is crucial to positively disrupt the way incentives are structured. To achieve this, we must look beyond formalized legal or even social contracts, which often focus on the 'what' and not necessarily on the 'how', and concentrate on how to redesign incentives to encourage sound decisions to allow for win-win outcomes. Amendments to the pension distribution formula are an example of how incentives can guide older and younger generations in a mutually beneficial direction. By aligning financial incentives with goals of environmental sustainability – a concern of the young, the restructured incentives for retirement pensions light up an energy-efficient bulb in the tunnel.

References

Aruna, S., Santhi, P., 2015; Impulse Purchase Behaviour Among Generation-Y; SSRN: <https://ssrn.com/abstract=2805619>

Cohen, R., 2021; Impact Rawls, J., 1973. A theory of justice., Oxford: Oxford University Press.

Ritchie, H., Roser, M., 2020; CO2 and Greenhouse Gas Emissions; Our World in Data

Ritchie, H., Roser, M., 2021; Deforestation and Forest Loss; Our World in Data Shafik, M., 2021. What we owe each other : a new social contract.

Smith, A., 1776; Wealth of Nations; bk. 1, ch. 2

Smith, S. A. 1997; Performance, Punishment and the Nature of Contractual Obligation. The Modern Law Review, 60(3), 360–377. <http://www.jstor.org/stable/1097241>

Stiglitz, J.E., 2012. The price of inequality, The Guardian,

Levine, S., 2017; Millionaire tells millennials: if you want a house stop buying avocado toast; [last accessed: 17.01.2022] <https://www.theguardian.com/lifeandstyle/2017/may/15/australian-millionaire-millennials-avocado-toast-house>

The Guardian, 2015; Consumption dwarfs population as main environmental threat; Yale Environment 360 Series; [last accessed: 17.01.2022] <https://www.theguardian.com/environment/2009/apr/15/consumption-versus-population-environmental-impact>

Tozer, T., 2019; A New Intergenerational Contract: Intergenerational Justice and Policy. [last accessed: 17.01.2022] https://www.futuregenerations.gi/uploads/docs/uk/A-New-Intergenerational-Contract_defin.pdf