The Job That Will Be Born: When the Generational Cycle Becomes an Economic Circuit

A new perspective on the relationships between demography, consumption, employment, and intergenerational sustainability

AINU.Systems Research — Narayama Systemic Project

Debates about declining fertility rates usually begin with a demographic question: how many people will be born in the coming decades, and what impact will this decline have on population aging? This is a fundamental issue, but perhaps insufficient to fully understand the economic dimension of the phenomenon.

There is another, less explored question: what happens to an economy when fewer people are born who, throughout their lives, will consume, work, produce, form new families, and support previous generations?

The study *The Job That Will Be Born: Generational Cycle, URSS and Return on Parental Investment in Costa Rica, South Korea, and Italy*, developed by AINU.Systems Research, approaches the issue from this perspective. Its objective is to investigate how the formation of new generations relates to domestic demand, potential employment generation, labor income, and the economic sustainability of different age cohorts.

The central hypothesis is that a society's continuity depends not only on the existence of new generations. It also depends on the ability to close an economic and social circuit in which the costs of formation, the benefits of production, and transfers between generations find conditions for equilibrium.

Three Generations, One System

The study organizes the population into three broad cohorts: Descendants, Structurers, and Ascendants.

Descendants represent the generation in formation. From birth, they generate new needs for food, housing, healthcare, education, transportation, and care. They are new consumers and, therefore, participants in economic demand even before entering the labor market.

Structurers represent the generation that concentrates productive activity and assumes a substantial share of the financial and material costs of forming Descendants. They are workers, producers, taxpayers, and providers of a significant portion of the private and public transfers that support the other cohorts.

Ascendants represent generations further along the life course, whose support depends, to varying degrees, on transfers, accumulated income, institutions, and the availability of caregivers.

These three categories should not be understood as isolated compartments. They are interdependent movements within a single system. Today's Descendants will become tomorrow's Structurers; today's Structurers will become Ascendants; and the next generation must find the conditions necessary to continue the circuit.

The proposed visual representation of the study derives from the AINU-NARAYAMA identity: a continuous symbol inspired by the infinity sign, with three interconnected circular movements. Its purpose is to show that generational sustainability does not reside in any cohort individually, but in the relationships connecting them.

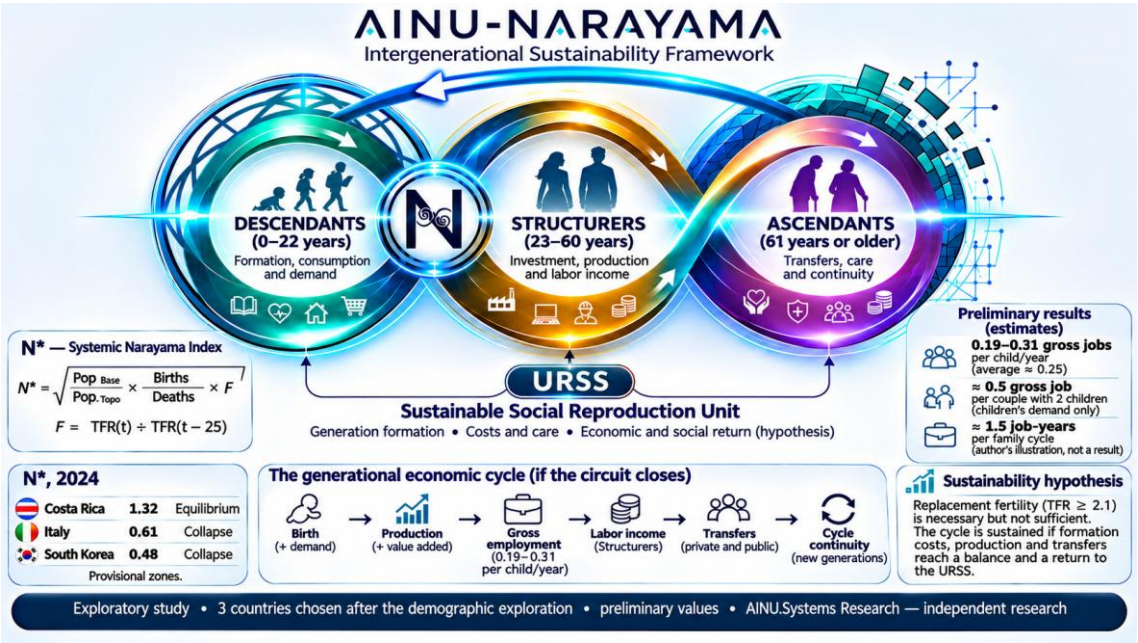


Figure 1. AINU-Narayama framework: three cohorts, the URSS, and the generational economic cycle. Values are preliminary and illustrative (see caveats in the text) and the N zones are provisional. Image generated with an artificial intelligence tool, under the author's review. Source: AINU.Systems Research (author's elaboration).*

From Birth to Employment Generation

The economic premise of the study is relatively simple: each additional birth introduces a new consumer into the economy. This consumption activates productive sectors and can support jobs.

To investigate this relationship, the study combines age-specific consumption profiles from National Transfer Accounts (NTA) with international input-output tables from the OECD and employment indicators from the International Labour Organization.

The transmission mechanism examined begins with an additional birth, moves through final consumption and domestic production, and reaches the estimation of jobs associated with demand.

Preliminary calculations indicate that each additional child may support approximately 0.19 to 0.31 gross jobs per year across the three countries analyzed. The average approaches 0.25 jobs per child.

In a family with two children, this represents approximately half a job associated with children's demand alone. When the parents' much longer presence in the Structurers cohort is considered, the economic cycle associated with the family approaches, as an illustrative order of magnitude proposed by the author, 1.5 job-years over time (not 1.5 simultaneous jobs).

These figures do not mean that every birth automatically creates a new job. They are estimates of potential gross employment associated with demand under specific assumptions. Spending substitution, idle capacity, supply constraints, and displacement effects must be considered when estimating net employment.

Nevertheless, the relationship points to an important dimension: fewer births do not merely alter the age structure of a population. They also change the future composition of domestic demand and the consumer base that drives the economy.

Three Countries, Three Trajectories

The research compares Costa Rica, Italy, and South Korea, chosen after the initial demographic exploration. The selection makes it possible to observe societies in different demographic positions, but it is descriptive and does not support generalization.

In 2024, the observed values of the Systemic Narayama Index (N*) used in the study were 1.32 for Costa Rica, 0.61 for Italy, and 0.48 for South Korea. Costa Rica therefore falls within the equilibrium zone defined by the model, while Italy and South Korea are in the collapse zone. These zones are provisional.

The study also simulates a scenario called Target, in which the total fertility rate converges linearly toward 2.1 over 25 years and remains at that level thereafter.

In the projection for 2099, Italy reaches an N* of 1.01, South Korea reaches 0.90, and Costa Rica ends at 0.88. The comparison shows that fertility recovery can mitigate demographic deterioration, but does not, by itself, guarantee a return to previous conditions.

There is also a temporal dimension. Rebuilding population cohorts does not happen immediately. A child born today will only enter the economically active population many years later. During this interval, the costs of formation are borne while the future productive benefits are not yet available.

This interval reveals one of the study's most important questions: who finances the transition, and who receives the return?

Parental Investment and the Problem of Returns

The formation of a new generation requires financial resources, time, domestic work, and care services. A substantial part of this effort is provided by families, particularly the Structurers.

Costa Rica offers a particularly relevant observation. According to the 2013 NTA accounts used in the study, 61.4% of Descendants' consumption was financed through private transfers, while 26.3% was financed through public transfers.

This means that a substantial share of the monetary cost of forming new generations is borne directly by families.

However, when Descendants enter productive life, their contribution becomes part of a broader economy. Production, taxes, services, and the benefits associated with economic activity do not necessarily return, proportionally, to the family units that financed their formation.

The study refers to these units as Sustainable Social Reproduction Units (URSS, from the Portuguese acronym), emphasizing that their function does not depend exclusively on whether their members are employed. The central point is to recognize the unit that undertakes the social and material investment required for generational continuity.

This raises a question of sustainability: if investment is concentrated within families, while subsequent benefits are distributed collectively, what mechanisms can ensure an adequate return to those who assume the initial cost?

This does not mean reducing human development to a financial transaction, nor does it imply that children should represent a source of financial remuneration for their parents. It means recognizing that social reproduction has real costs and that their distribution affects the conditions under which the economic system itself can continue.

What Economic Accounting Still Fails to Show

An important contribution of the study is its incorporation of unpaid production and the care regime into the discussion.

Conventional economic accounts record monetary transactions but do not fully capture the services performed within families. Childcare, assistance to older people, food preparation, and other domestic activities represent actual work, even when they are unpaid.

Latin American NTA scholarship has already recorded what remains outside this monetary accounting. Rosero-Bixby (2011) applied NTA to five countries in the region, including Costa Rica, to examine the effects of population aging. Jiménez-Fontana (2015), using the NTA methodology, showed that national accounts do not measure the

time devoted to unpaid production, which carries no explicit monetary compensation and is part of the real cost of caring for others. Filgueira and Martínez Franzoni (2019) analyzed the socially unequal care regime.

These contributions help broaden the interpretation of the results. The cost of forming a generation is not limited to monetary transfers. It also includes the time and labor of those who provide care.

When this dimension is not incorporated, accounting tends to underestimate the actual effort made by families. The result is an incomplete representation of generational investment.

The Circuit Must Close

The study's main conclusion is that demographic recovery alone does not guarantee the economic and social sustainability of generations.

The birth of new consumers can stimulate demand and support potential employment. Their entry into productive life can expand aggregate income and society's capacity to finance its activities. However, this process depends on institutional, productive, and distributive conditions that make it possible to bridge the interval between initial investment and future returns.

Sustainability requires the three movements — formation, production, and transfers — to remain interconnected. If the costs fall disproportionately on Structurers and their URSS, without mechanisms for recognition and return, the very process of generational formation may lose its foundations.

The proposed image of the three-movement infinity seeks to express this idea: no generation exists independently of the others. Each receives conditions created by previous generations and, at the same time, participates in building the conditions that will be passed on to those who follow.

The study remains under development. Employment and value-added results are preliminary, and estimates of net employment and savings by cohort have yet to be completed. The three-country sample is exploratory, and demographic projections do not constitute causal demonstrations. These limitations define the scope of the conclusions and guide the next stages of the research.

The question that remains is greater than fertility rates or population aging: **what economic and institutional conditions allow a society to continue forming the generations upon which its own future will depend?**

The job that will be born is not merely the job that will be occupied by individuals who have not yet been born. It is also the employment that their existence, consumption, and future productive participation may help sustain.

But for that future to materialize, the circuit must work today.

Forming generations, producing wealth, transferring resources, and recognizing social investment: four dimensions of a single challenge in intergenerational sustainability.

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Artificial intelligence tools were used for translation, image generation, and language editing, under the author's review.