Ronald Lee June 3, 2002

Article on "Intergenerational Transfers" for Encyclopedia of Population. Word count, including references: 1883.

A transfer is much like a gift. Unlike an exchange, or a loan, or a purchase, there is no expectation that the recipient will repay the giver either directly or indirectly. An intergenerational transfer is a transfer that goes from a member of one generation to a member of another. Often, this refers to a transfer across generations of kin, for example from a grandparent to a grand child. However, generation is a loosely defined concept, and it can simply mean a different age group, so that a public sector intergenerational transfer could be said to occur between a 25 year old tax payer and a 17 year old student in a public high school. Although transfers do not involve a quid pro quo between the giver and the receiver, they may instead involve an understanding that the recipient will make a similar transfer to someone in a symmetric position. For example, a child may receive transfers from her parents with an implicit understanding that she will in turn make similar transfers to her own children when she is an adult. Alternatively, an adult child may support his elderly parents with the implicit understanding that his children will support him in his old age.

Some intergenerational transfers are private: Child-rearing costs born by parents; costs of higher education born by parents; end of life bequests to children or grand children; economic support of elderly parents by their children; time spent by adult children caring for or managing the care of their elderly parents. Other intergenerational transfers take place through the public sector when tax receipts are used to provide public education, public pensions (Social Security), Medicare, Institutional Medicaid, or other programs. Still others are imposed indirectly by the public sector, when it incurs debt today for consumption type expenditures (rather than capital items), debt which must be repaid or serviced by future generations.

Intergenerational transfers are pervasive, and their study is important for many reasons, of which the following is a partial listing. 1) A high proportion of total household income is reallocated from the earner to some other person, either through public or private transfers, so transfers are very important quantitatively, and have a major influence on the inter-personal distribution of income. 2) The private costs of rearing children, although the level is subject to the parents' choice, are nonetheless identical to the costs of children that enter into their fertility decisions. If parents intend to leave a bequest for each child, then the level of these intended bequests is a part of this cost of child rearing. Decisions about the level of private costs, or the size of the transfer to children, also determine the human capital of the next generation. 3) The greater share of elder care is provided by relatives rather than by nursing homes. 4) The patterns of intergenerational transfers, both public and private, are a major determinant of the financial consequences of changing population age distributions, and specifically of population aging. 5) Private transfers can substitute for, or be crowded out by, public transfers. To design policy, and to understand the impact of existing age-based or need-based policies, it is essential to understand and

quantify these processes of substitution and crowding out. In particular, the interaction between public and private transfers depends in part on the motives for private transfers, for example whether they are motivated by altruism (in which case there should be a high degree of substitution and crowding out) or by exchange (in which case there should be very little). 6) Patterns of intergenerational transfers in traditional societies play a key role in some fertility theories, such as Caldwell's theory of the transition. 7) Patterns of transfers in preindustrial societies play an important role in evolutionary theories of fertility and mortality: do the elderly contribute to the reproductive fitness of their children? Why do humans have such long post-reproductive survival, even in huntergatherer societies (if they do)? 8) Kotlikoff and Sommers (1981) argued, in a classic article, that the desire to make familial intergenerational transfers, particularly bequests, is the dominant motive for saving, investment, and capital formation in industrial nations, more so than the life cycle saving motive.

The modern theory of intergenerational transfers began a seminal paper by Paul Samuelson (1957). He showed that in a world without durable goods, in which workers wished to provide for consumption in old age, the competitive market for borrowing and lending would lead to a negative interest rate with high consumption when young, and very little when old. Life cycle utility would be correspondingly low. However, if the population enacted a social compact according to which workers would simply transfer income to the old, without any expectation of being repaid by them, then consumption could be more evenly distributed across the life cycle, and life cycle utility would be much higher. In place of the negative rate of interest provided by the market outcome, people would earn through the transfer system an implicit rate of return equal to the population growth rate (plus the rate of productivity growth in a more realistic context). Thus intergenerational transfers supported by a social compact could apparently make everyone better off in every generation. Even the first generation of workers to transfer to the elderly would be better off, since they would receive transfers in their own turn.

Systems of this sort are called Pay As You Go, or PAYGO, because their obligations are not backed up by assets or a fund; rather future payments of benefits come from future contributions by future workers. Such a system is politically easy to start, because all current and future generations apparently gain, but very painful to end, because the last generations of workers end up making transfers to the elderly and receiving nothing from subsequent generations in their own old age. At every moment in its operation, such a transfer system has an implicit debt that is owed to those who have already paid in, and are therefore owed later support. The implicit debt is exactly equal to the windfall gain received by the first generations to receive benefits in excess of their contributions, and it is essential and unavoidable in a PAYGO system. Providing the support to those who have paid in earlier inevitably creates new implicit debt, so it cannot be paid down without ending the system. Throughout most of the Third World, familial support for the elderly is of this sort, sustained by individual values and social norms, with occasional reinforcement by law, as in Singapore. Public pension systems in the industrial world, including the US Social Security system, are also of this sort. The transition from a family support system to a public PAYGO system should be relatively painless, since no

implicit debt need be repaid; the implicit debt is just transferred from one system to the other.

Slowing population growth and rising life expectancy make both familial and public pension systems appear much less attractive than when population and productivity both grew more rapidly and life was shorter. Nonetheless, despite dissatisfaction, and the appeal of the higher rates of return available from other kinds of investments, the systems cannot be shutdown or converted to private funded systems without repaying the implicit debt. For families, this means that one generation will have both to support its aging parents and to save for its own retirement. For public sector programs, the implicit debts are huge, often one, two, or three times the size of the country's GDP, and often larger than the explicit government debt. Nonetheless, a number of countries, mostly in Latin America and most famously Chile, have made or initiated the transition to a funded system.

Becker and Murphy (1988) have developed an influential theory linking the provision of public education and public pensions, as a way of bringing about efficient investments in education when parents' altruism is insufficient to motivate these, and institutions do not exist to enforce repayment of intergenerational familial loans. The introduction of a public pension system then compels the children who received the education to repay their parents through their contributions to the public pension system, and no generation gets a windfall gain or suffers a windfall loss.

There is also a substantial literature on transfers to and from children. Caldwell (1976) argued that "in all primitive and nearly all traditional societies the net flow [of wealth] is from child to parent", and that this net flow motivated high fertility. At some point, labeled the "great divide" the direction of flows reverses as children become costly rather than assets in modern industrial settings, and the flow is towards children. At this point, it would be narrowly economically rational to have no children; positive fertility results from their psychic utility. Caldwell's wealth flows theory has been attacked by behavioral ecologists, who argue that all organisms have evolved to maximize reproductive fitness by transferring resources from parent to child, and that parents would not use children merely as a means to supply family labor or to support them in old age. Arguing in this vein, Kaplan (1994) reports that in a hunter-gatherer group in the Amazon Basin, even the oldest members of the population make transfers to their children and grandchildren, and the more of these they have, the greater the transfers they make. Thus transfers are downward rather than upward, counter to Caldwell's claim. Lee (2000) finds that in agricultural and pre-agricultural societies, the net direction of total transfers is strongly downwards across age, from older to younger. In modern industrial societies, however, this direction of net flow is reversed, due in part to the generosity of public pension and health care transfers to the elderly, and in part to population aging which greatly increases the proportion of elderly in the population. Even in modern industrial societies, however, the net flows within the family are downwards.

At the micro-level, there is extensive theoretical and empirical work on transfers to children, since transfers are equivalent to investments in child quality in fertility theory.

For a discussion of this theory, and the quantity-quality tradeoff, see Fertility (a heading in this encyclopedia). There is also an extensive literature on the motivations for familial intergenerational transfers: altruism or exchange? (Cox, 1987). This question might be translated to ask whether apparent intrafamilial transfers actually involve a quid pro quo, and are therefore really exchanges. Empirical findings are mixed.

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