Sahra Wagenknecht

The Limits of Choice

Saving Decisions and Basic Needs in Developed Countries

campus

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Introduction

Despite a large amount of detailed economic research studying consumption and saving behaviour in several countries, utilizing high-level mathematics as well as highly powerful statistical software, the performance of theories attempting to explain the empirical facts still seems to be unsatisfactory. In fact, there is a clear gap between empirically oriented papers about saving on the one hand, and on the other one that part of the literature, which is primarily concerned with estimating the parameters for models of intertemporal utility maximisation that are assumed to guide consumer behaviour. While the issues raised by the latter interest only those believing in the respective models, publications with an empirical focus often reveal interesting relationships of undeniable meaning. Ultimately, these studies mostly note a conflict between their findings and the predictions of mainstream theories.

However, saving is certainly one of the crucial economic variables. Since private-household saving usually accounts for the major part of national saving, it is desirable indeed to clarify what drives an ordinary consumer to save or consume his wealth, and to understand how such decisions are affected by changes in the economic environment or by politically controlled parameters.

For decades, the Life Cycle/Permanent Income Hypothesis (LCPIH), originally formulated by Friedman (1957) and Modigliani & Brumberg (1954), subsequently highly formalised by making use of dynamic programming techniques and optimal control theory, has been the central paradigm in economics for studying consumption and saving behaviour. The LCPIH assumes households optimise the utility of consumption intertemporally, subject to permanent income or life-time wealth. In this approach, saving is merely a by-product of the optimal consumption path. The exclusive purpose of saving is future consumption since the only

trade-off a consumer faces is the trade-off between current and future spending.

The mainstream models are based on the assumption of homothetic preferences and additive intertemporal utility. Preferences are assumed not to be interdependent. The optimal intertemporal consumption path is presumed to be governed by the relationship between the real interest rate, rewarding the accumulation of financial wealth, and a discount factor measuring the degree at which households depreciate future consumption compared to immediate pleasure.

The central prediction of these models under perfect foresight or certainty-equivalent conditions states that consumption does not respond to current changes in income if these have been expected in advance. The effect of an unexpected income shock depends on its impact on permanent income. If the income shock is considered to be transitory, consumption remains stable; a transitory income gain will be mainly saved, while a transitory loss will be balanced by dissaving. Only if the consumer expects the shock to be persistent, is consumption adjusted upwards or downwards. The marginal propensity to consume (MPC) out of an increase in current income is consistently assumed to be exactly the same as the MPC out of an increase of equal present value in expected future income.

Vital issues of research within such an approach are to distinguish transitory and permanent income shocks as well as expected and unexpected events. A major focus within empirical work is on estimating the intertemporal elasticity of substitution as the crucial parameter determining the curvature of the intertemporal utility function. In order to refer to aggregate data, the representative agent approach is adopted in most cases, analysing an economy as if it carries out an infinite horizon optimisation problem of a single, immortal, foresighted consumer. This approach requires a number of simplified assumptions about individual preferences.

Yet, the hypothesis of consumers monadically calculating their optimal consumption path far into the future by use of dynamic programming techniques and taking into account the probability distributions of future income streams, life-expectancy and real interest rates, is not just an approach to consumption behaviour. It is one of the cornerstones of modern macroeconomics. As noted by Hahn & Solow (1997), post-Lucas macroeconomic theory stems from two essential commitments: first, a valid macroeconomic model should be the exact aggregation of a microeconomic model; second, the appropriate microeconomic model is based on inter-

temporal utility maximisation subject to budget constraints and technology only.

In fact, only extremely simplified models at the micro level allow for exact aggregation as the heterogeneity of agents has to be strictly curbed. Except for some recent developments in Dynamic Stochastic General Equilibrium modelling, heterogeneous agents have been entirely excluded in the dominant range of macroeconomic theory. We are not concerned with the consequences for the modelling of firms and competition here. Concerning the theory of the consumer, excluding heterogeneity requires a presumption of homothetic preferences; otherwise distributional parameters influence the aggregate outcome and devaluate the representative agent approach. Interdependencies and strategic interactions also have to be neglected. In fact, the standard LCPIH perfectly fulfils these needs and has therefore been used as an essential module of modern macroeconomic theory.

These models, impressive due to their sophisticated mathematical apparatus impeccably concealing bizarre underlying assumptions, are often the basis for straightforward policy advice. Lucas' critique of the Keynesian consumption function (Lucas, Sargent 1981) was in fact not so much targeted at theory than at policy. Indeed, if people do immediately calculate the permanent income value of a transitory income gain, any political attempt to stimulate demand during an economic downturn by, say, improved social benefits, is simply nonsense. Generally, if forward-looking consumers translate each piece of public debt into an expectation of an additional future tax burden, public deficit spending will only force private households to become particularly eager savers due to adjusted life-time consumption plans. If preferences are, moreover, homothetic, individual saving rates will be completely independent from permanent income. Under such conditions, suggesting a policy that favours low-income families in order to encourage effective demand is just an attestation of economic imbecility.

Therefore, the choice of which theory of saving is acceptable as a description of real consumer behaviour and which should better be disregarded, has far reaching consequences. Ultimately, this should lead to a scrutinising of the reality of the micro foundation of modern macroeconomics.

Already in the early nineties, numerous papers expressed disappointment at the weak empirical performance of the standard LCPIH. It turned