

# Anomalies

## Saving, Fungibility, and Mental Accounts

Richard H. Thaler

Economics can be distinguished from other social sciences by the belief that most (all?) behavior can be explained by assuming that agents have stable, well-defined preferences and make rational choices consistent with those preferences in markets that (eventually) clear. An empirical result qualifies as an anomaly if it is difficult to “rationalize,” or if implausible assumptions are necessary to explain it within the paradigm. This column will present a series of such anomalies. Readers are invited to suggest topics for future columns by sending a note with some references to (or better yet copies of) the relevant research. Comments on anomalies printed here are also welcome. The address is: Richard Thaler, c/o *Journal of Economic Perspectives*, Johnson Graduate School of Management, Malott Hall, Cornell University, Ithaca, NY 14853.

### Introduction

Last New Year's day, after a long evening of rooting the right team to victory in the Orange Bowl, I was lucky enough to win \$300 in a college football betting pool. I then turned to the important matter of splurging the proceeds wisely. Would a case of champagne be better than dinner and a play in New York? At this point my son Greg came in and congratulated me. He said, “Gee Dad, you should be pretty happy. With that win you can increase your lifetime consumption by \$20 a year!” Greg, it seems, had studied the life-cycle theory of savings.

The essence of the life-cycle theory is this: in any year, compute the present value of your wealth, including current income, net assets, and future income; figure out the

■ *Richard H. Thaler is Henrietta Johnson Louis Professor of Economics, Johnson School of Management, Cornell University, Ithaca, New York.*

level annuity you could purchase with that money; then consume the amount you would receive if you in fact owned such an annuity. The theory is simple, elegant, and rational—qualities valued by economists. Unfortunately, as Courant, Gramlich, and Laitner observe (1986, p. 279–80), “for all its elegance and rationality, the life-cycle model has not tested out very well.”

The anomalous empirical evidence on consumption falls into roughly two categories. First, consumption appears to be excessively sensitive to income. Over the life-cycle, the young and the old appear to consume too little, and the middle-aged consume too much. Also, year-to-year consumption rates are too highly correlated with income to be consistent with the model. Second, various forms of wealth do not appear to be as close substitutes as the theory would suggest. In particular, households appear to have very low marginal propensities to consume either pension wealth or home equity, compared to other assets. Several potential explanations of the empirical difficulties have been identified. Maybe people aren’t rational enough to calculate present values and annuity payments. Then again, maybe people are hyperrational and altruistic, leading them to calculate not just the present value of their own wealth, but also the wealth of their heirs. Or perhaps credit markets are to blame, with liquidity constraints preventing people from achieving the life-cycle plan they would otherwise choose to adopt. These and other explanations have all received some support and criticism in the voluminous savings literature. In this column, however, I focus on an assumption of the life-cycle model that has not received very much attention, but which, if modified, can allow the theory to explain many of the savings anomalies that have been observed. The key assumption is *fungibility*.

Fungibility, of course, is the notion that money has no labels. In the context of the life-cycle theory, the fungibility assumption is what permits all the components of wealth to be collapsed into a single number. According to the life-cycle hypothesis, the effect of winning the \$300 football pool should be the same as having a stock in which I own 100 shares increase by \$3 a share, or having the value of my pension increase by \$300. The marginal propensity to consume (MPC) all types of wealth is supposed to be equal, assuming no transactions costs and so on.

A simple way of thinking about how people actually behave with respect to various types of wealth is to assume households have a system of mental accounts. One formulation is to consider three broad accounts, a current income account  $C$ , an asset account  $A$ , and a future income account  $F$ . Roughly speaking, the MPC from  $C$  is close to unity, the MPC from  $F$  is close to zero, and the MPC from  $A$  is somewhere in between. Since the null hypothesis is that all three MPC’s are equal, these predictions are quite strong.

Along with the system of mental accounts, with varying MPC’s, two other modifications to the standard life-cycle theory are in order, both of which were discussed in the previous column on intertemporal choice. First, people are impatient. Especially over the short run, people act as if their discount rate exceeds the interest rate. The presence of high short-run discount rates creates the second problem, self-control. The life-cycle theory assumes that individuals solve for the optimal consumption plan, and then execute it with will of steel. In real life, people realize

that self-control is difficult, and so they take steps to constrain their future behavior. One method is to take irreversible actions, such as joining a pension plan or buying whole life insurance. The Social Security system, perhaps the most popular social policy of this century, is an example of legislated self-control. The other method is to adopt internally enforced *rules-of-thumb*. Examples of such rules are: keep two months income in the assets account; do not borrow except to make durable goods purchases such as a house, car, or major appliance. Note that households following the latter rule might appear to be liquidity constrained, *unable* to borrow, whereas they are actually *unwilling* to borrow. This issue will be discussed in detail below.

To summarize, the household being described can be thought of as following the following prudent rules. First, live within your means. Do not borrow from  $F$  or  $A$  to increase current consumption, except during well-defined emergencies, such as spells of unemployment. Even then, cut consumption as much as possible. Implication: consumption tracks income (too much). Second, keep a rainy day account equal to some fraction of income. Do not invade this account except in emergencies. Implication:  $A$  is small. Third, save for retirement in ways that require little self-control. Implication: most retirement saving is non-discretionary—Social Security, pensions, whole life insurance, and home equity. These rules are sensible, second-best solutions to the saving for retirement problems that humans face.

This column will review a small portion of the empirical savings literature, with the objective of showing how violations of fungibility, and more generally the role of self-control, strongly influences saving behavior.

## The Current Income Account: Consumption Tracks Income

A consensus seems to be emerging among economists that consumption is too sensitive to current income to be consistent with a lifetime conception of permanent income. The evidence in support of this view comes from a wide variety of sources, and the conclusion is the same whether one studies so-called low frequency decisions (the shape of the life-time consumption profile) or high frequency decisions (the smoothing of year to year consumption).

### Lifetime Consumption Profiles

The heart of the life-cycle theory of saving is a hump-shaped age-saving profile. The young, whose incomes are below their permanent income, borrow to finance consumption; the middle-aged save for retirement; the old dissave. Numerous authors have studied the shape of consumption profiles over the life cycle and have concluded that they resemble income profiles too much to be consistent with both the life-cycle

<sup>1</sup>This paper draws heavily on my joint work with Hersh Shefrin, Thaler and Shefrin (1981) and Shefrin and Thaler (1988). Details of a model of savings behavior based on mental accounting and self-control are available in the latter paper.

theory and rational expectations unless there are important liquidity constraints (Kotlikoff and Summers, 1981; Courant, Gramlich and Laitner, 1986). In a recent look at this question, Carroll and Summers (1989) have evaluated the life-cycle theory from an international perspective.

The permanent income savings model predicts that the consumption growth rate in a country depends primarily on the interest rate. Thus, if interest rates around the world are equalized, then so should long-term consumption growth rates (assuming "tastes"—the degree of impatience—are the same in all countries). Instead, what Carroll and Summers find is that consumption growth rates are highly correlated with income growth rates. They investigate and dismiss the idea that the former result is due to surprises in country growth rates, capital market imperfections across countries, or variations in tastes.

The high correlation of consumption and income growth rates could be consistent with the life-cycle model if everyone in an economy had flat income and flat consumption over their lifetimes. Then, in a fast growing country the young will be much richer than the old, and when an old person dies and is replaced by a young one who consumes much more, aggregate consumption rises. So, the life-cycle theory predicts that the cross-sectional age-consumption profile should be less steeply sloped in a rapidly growing country than in a slowly growing country. At any point in time, the consumption of the young relative to the consumption of the old should be positively correlated with the growth of GNP. Instead, Carroll and Summers find that age-consumption profiles are very similar across countries. Indeed, the profile is steeper in Japan than in the U.S. even though Japan has had much higher growth rates. Again the answer seems to be that consumption tracks income.

Another prediction of the life-cycle theory is that the shape of consumption profiles should be independent of the shape of income profiles, holding levels constant. Casual empiricism suggests that this is not true, since most graduate students, even those with high income expectations such as medical students, consume much less than their permanent income. Hard data give the same impression. Carroll and Summers look at the consumption and income profiles for various occupation and education groups in the U.S. They find that the age-consumption profile is strongly influenced by the income profile. This result is due in part to liquidity constraints, discussed below.

### **Short-term Saving**

Both the life-cycle theory and the permanent income hypothesis imply that year-to-year variations in income will be smoothed so that consumption is a constant proportion of permanent rather than current income. Hall and Mishkin (1982) showed that this prediction is violated systematically. Specifically, annual consumption appears to be excessively sensitive to current income. Although this result was described in terms of a modern, rational expectations model of permanent income, the empirical results are quite similar to those obtained by Milton Friedman (1957) in his original work on the consumption function. He estimated the discount rate of

consumers to be between .33 and .40, implying a planning horizon of three years or less, and thus a consumption function that depends strongly on current income.<sup>2</sup>

One way of estimating the importance of income-sensitive behavior is to consider the possibility that there are two types of consumers: one type satisfies the permanent income hypothesis, the other type follows the rule of thumb "spend what you make." Campbell and Mankiw (1989) consider such a model, and estimate the relative proportions to be about 50-50.<sup>3</sup> The permanent income model does not appear to be a good characterization of the representative consumer. (Also, see Flavin, 1981).

Interpreting the evidence on the time-series properties of consumption is tricky business. However, the excess sensitivity to income point has been demonstrated in a cleverly simple paper by Wilcox (1989). Wilcox studied the effect of changes in Social Security benefits on consumer spending, using monthly data between 1965 and 1985. Over this period there were 17 increases in benefits, all of which were announced at least 6-8 weeks in advance of when they took place. The standard life-cycle prediction for these increases in that consumption should respond to the new (higher) level of permanent income at least by the time the changes are announced.<sup>4</sup> (The Barro-Ricardo (Barro, 1989) prediction is that there will be no change in consumption at any point.) What Wilcox finds is that consumer spending does increase, but only after the benefits start arriving, rather than when they are announced. The effect is particularly strong for durable goods sales.

### Sources of Income, Bonuses, and Windfalls

Do all changes in wealth produce a similar short-term change in consumption? The mental accounting prediction for the MPC out of windfall gains depends on the size of the gains. Small gains, relative to income, will be coded as current income, and spent. Larger gains will enter the assets account, where the MPC is lower (though still higher than the annuity value). The source of a change in wealth can also matter. Some windfalls, such as unrealized capital gains, are naturally treated as changes in the assets account. Others, such as the sale of a security, could be treated as income. Empirical evidence confirms the reality of this distinction. For example, Summers and Carroll (1987) report that the marginal propensity to save capital gains in the stock market is close to unity. But Hatsopoulos, Krugman and Poterba (1989) find that when takeovers generate *cash* to the stockholders, consumption does increase. They estimate the MPC from the after-tax cash receipts from takeovers to be .59 (though

<sup>2</sup>In a provocative paper, Deaton (1987) has argued that consumption is actually too smooth, rather than too variable. However, Deaton does not dispute the fact that consumption depends too much on current income. Rather, he argues that innovations in labor income are *underestimates* of changes in permanent income, so consumption changes should be *greater* than income changes. The correct interpretation depends on the stochastic properties of income.

<sup>3</sup>It is worth noting that even the permanent income consumers in their model have an intertemporal elasticity of consumption of close to zero. A similar result in the context of a permanent income model is obtained by Hall (1988).

<sup>4</sup>Actually, since 1975 the benefit levels were indexed to the CPI, and the changes were quite predictable months before the announcement date.

with high standard error) compared to .83 for disposable income and .03 for household net worth. Also, as discussed below, increases in housing wealth and pension wealth have, if anything, the perverse effects of increasing other saving.

Even cash receipts can enter the assets account if the inflow is in a large enough lump, and not considered regular income. Interesting cases to consider are bonuses and windfall gains. Define a bonus to be a fully anticipated but lumpy payment. One example is the academic institution of summer salary, when it is received with certainty. Consider two professors. John earns \$55,000, paid in monthly installments. Joan is paid a base salary of \$45,000 paid over twelve months, and a guaranteed extra \$10,000 paid during the summer months. The standard theory predicts that the two professors will make identical saving decisions. The mental accounting formulation predicts that Joan will save more for two related reasons. First, since her "regular" income is lower, she will gear her life-style to this level. Second, when the summer salary comes in a lump, it will be entered into the assets account, with its lower MPC. One test of this prediction comes from the analysis of the effect of bonuses on savings in Japan,<sup>5</sup> where workers receive semi-annual bonuses which are quite predictable. Ishikawa and Ueda (1984) estimated the MPC from regular income and bonus income. In non-recession years they found that the MPC from regular income was .685 while the MPC from bonus income was only .437.<sup>6</sup> During the recession-oil shock period 1974–76 the MPC from bonus income jumped to over 1.0, suggesting that the bonuses were used to spread consumption during emergencies.

The best data on consumption from windfalls is in Landsberger's (1966) examination of the Israeli recipients of German restitution payments after World War II. He studied 297 families who received payments that varied over a wide range. He found that the group that received the largest windfalls (about 66 percent of annual income) had a MPC from the windfall of only 23 percent, while the group that received the smallest windfalls (about 7 percent of annual income) had MPC's from the windfall in excess of 2.0. Small windfalls were actually spent twice, a phenomenon familiar to all two-spender families.

## Is Wealth Fungible?

The life-cycle model is a powerful model because it makes predictions about which variables should have an effect on saving and which should not. To a first

<sup>5</sup>It is frustratingly difficult to test the idea that the timing of income flows within the year might influence consumption behavior. Perhaps because of the prediction of economic theory that such matters are irrelevant, no standard data set includes questions about the magnitude and size of irregular income flows such as bonuses.

<sup>6</sup>The authors argue strongly that the bonuses should not be considered transitory income since they are well anticipated. They also use expectations data to test the hypothesis that workers spend unanticipated bonuses differently than expected bonuses, but find no evidence to support this view.

approximation, the only factors that should affect a household's saving rate are the age of the family members, the family lifetime wealth, and the interest rate. The *composition* of wealth, holding the present value constant, should not have any effect. For most households, wealth consists almost exclusively of three components: future income, pension and Social Security wealth, and home equity.<sup>7</sup> Abstracting from liquidity considerations, these three types of wealth should be nearly perfect substitutes.

### Pension Wealth

Consider two people with identical lifetime earnings profiles. One has \$100,000 in pension wealth,<sup>8</sup> the other has no pension. The life-cycle prediction is that the person without the pension should have \$100,000 more in other savings. That is, there should be a one-for-one offset. The null hypothesis is that if one estimates the change in discretionary savings with respect to a change in pension wealth, it should be  $-1.0$ .

The earliest work on the effect of private pensions on other saving was done by Cagan (1965) and Katona (1965). Both obtained the surprising result that the effect of pension wealth on other saving was not close to  $-1.0$ —it was positive! Adding a dollar of pension wealth slightly increased other saving. Could this result be explained by selectivity bias? That is, do people with a taste for saving tend to work for companies that offer pension plans? This hypothesis was tested indirectly by Green (1981). He estimated the pension offset for a subsample that contained only people who had a pension, and again found the offset to be slightly positive. For this result to be explained by selectivity bias people would have to perfectly match themselves (on average) to firms based on pension benefits and saving preferences, which seems implausible. In a life-cycle framework, why shouldn't someone with a taste for saving simply take the best job overall and then adjust his discretionary saving to the optimum level given the firm's pension policy? Other estimates for the pension-saving offset have obtained the "right" negative sign, but none were close to  $-1.0$ . (See Shefrin and Thaler, 1988, for a summary and references.) People do not appear to treat pension wealth as a close substitute for other wealth.

Similar issues arise with regard to Individual Retirement Accounts, IRAs. The central issue is whether IRAs really generated "new" saving, or whether they just represented "reshuffling" of saving from other (taxable) forms to the new sheltered

<sup>7</sup>Most households have little in the way of liquid assets, even when they first reach retirement age. This fact, in and of itself, supports the view that self-control issues are paramount in studying saving. The vast majority of households do virtually no long-term "discretionary" saving.

<sup>8</sup>There are two important components of pension wealth in the U.S., Social Security benefits and private pensions. There is a large literature in each domain estimating this savings offset. The estimation problems are much more difficult for Social Security wealth because an individual's Social Security wealth is so highly correlated with age and prior earnings. After controlling for these two factors, there is essentially no cross-sectional variation in Social Security wealth. I will therefore just summarize the literature on private pensions. However, see Barro (1978) (which contains a reply for Feldstein) for a review of Social Security-savings literature.

account. As Venti and Wise (1987, p. 6) put it: "It may be tempting to think of IRAs and conventional saving accounts as equivalent assets, or goods, simply with different prices, in which case one might think of IRAs as only a price subsidy of conventional saving with a limit on the quantity that can be had at the subsidized price. . . . But, . . . the analysis indicates quite strongly that the two are not treated as equivalent by consumers." Venti and Wise use the Consumer Expenditure Survey to analyze the IRA experience, and conclude (p. 38) that "the vast majority of IRA saving represents new saving, not accompanied by reduction in other saving." They also find that most IRA contributors had not done much saving before IRAs were introduced.

Feenberg and Skinner (1989) also examine the "new" saving vs. reshuffling hypothesis using a sample of tax returns. If IRAs are primarily reshuffled savings, then IRA users should have lower taxable interest income than non-users. However, they find that within each wealth class the IRA users had higher taxable interest income, suggesting a positive offset similar to that found in the pension studies.

Some other facts about IRA usage suggest that mental accounting and self-control factors are important. Since IRAs sheltered interest income, a rational person would purchase an IRA at the earliest possible date, so that the income would be sheltered as long as possible. This would be particularly true for someone who was just shifting assets from a taxable account to an IRA. According to the law, however, taxpayers could make tax deductible purchases for a given year up until April 15 of the following year. Summers (1986) reports that for the 1985 tax year, nearly half of the IRA purchases were made in 1986. Also, Feenberg and Skinner find that, holding everything else constant, an important predictor of whether a household will purchase an IRA is whether they would otherwise have to write a check to the IRS on April 15. Those who owed money were more likely to buy an IRA than those who were getting refunds. This result begs for a mental accounting interpretation. ("I would rather put \$2000 in an IRA than pay the government \$800.") Feenberg and Skinner also found that wealth was a more important predictor of purchase than was income, suggesting that those households with liquid assets were more likely to buy IRAs.

If IRA purchases often come out of liquid assets, why do IRA purchases increase total saving? One reason is that money in the IRA account becomes both less liquid (it is subject to a special 10 percent tax surcharge if withdrawn before the purchaser reaches  $59\frac{1}{2}$  years old) and less tempting. Funds in an IRA are regarded as "off-limits" except for the most dire of emergencies. As Venti and Wise (1989, p. 11) note, "Some persons of course may consider the illiquidity of IRAs an advantage: It may help insure behavior that would not otherwise be followed. It may be a means of self-control."<sup>9</sup> Also, if households have a desired level of their *A* account, then the purchase of the IRA will only decrease the account temporarily. Similarly, those who borrow to purchase an IRA will normally pay the loan off fairly quickly (certainly before they reach retirement age) and thereby increase net saving.

<sup>9</sup>The experience with 401-k tax-deferred retirement plans illustrates that people may value illiquidity for retirement saving. Some plans permit withdrawals for "hardships," while others do not. The Government Accounting Office reports (GAO/PEMD-88-20FS) that participation rates and deferral rates are if anything higher in the plans that do *not* permit any withdrawals.



## Housing Wealth

As in the case of pension wealth, the life-cycle theory assumes that home equity is fungible and therefore is a good substitute for other forms of wealth. To evaluate this part of the theory, it is useful to begin with some simple facts. Krumm and Miller (1986) use the Panel Survey of Income Dynamics between 1970–79 to study the effect of homeownership on other savings. They find the following pattern. Young households accumulate liquid assets in order to make a down payment on their first house purchase, then draw down those assets when they buy the home. Soon thereafter, they begin to accumulate liquid assets again. At the same time they are building up home equity by paying off their mortgage and accumulating capital gains on their home. If the wealth in their home is a good substitute for other savings, then one would expect homeowners to have less savings in other assets, holding everything else constant. However, just the opposite is true. Comparing those households in the panel who owned a house continuously from 1970–1979 to those who never bought a house, homeowners' non-house savings were \$16,000 higher, *ceteris paribus*. In addition, they had \$29,000 in home equity. For a similar result, see Manchester and Poterba (1989).

Another way of looking at the fungibility question is to estimate the MPC from housing wealth. Skinner (1989) takes this approach. He first runs a simple regression of the change in real consumption from 1976 to 1981 on the change in housing wealth for those people in his sample who owned a house and did not move. The estimated coefficient was not significantly different from zero. In more complex models, one set of regressions obtained a small but significant effect, while another set that corrected for individual differences across families suggested that shifts in house value had no effect on consumption.

Could these results be explained by Barro-Ricardo style intergenerational transfers? If house prices go up, then people want to save more to give their kids money to buy a house. To check this, Skinner tries a housing wealth  $\times$  family size interaction term, but finds that it also has no effect on consumption.<sup>10</sup> Also, if Barro were right then everyone (on average) would respond to an increase in house prices by saving more for their heirs, not just homeowners.

The low MPC from housing wealth is reflected in another life-cycle anomaly, namely that the elderly do not dissave fast enough. This is an additional aspect of the consumption tracks income issues addressed above. The young and the old consume too little, relative to the life-cycle prediction. While the behavior of the young could plausibly be explained by capital market imperfections, the behavior of the elderly is more puzzling, especially for homeowners. Homeowners over 65 rarely have any mortgage debt, and so have considerable home equity they could draw down. The reluctance to spend home equity appears to be voluntary, as shown by Venti and Wise (1989) in a paper entitled, "But They Don't Want to Reduce Housing Equity."

<sup>10</sup> It was pointed out to me in a seminar I presented at the University of Chicago that such tests are not conclusive. A childless family might still have nieces and nephews. I should add that this remark from the audience did *not* elicit any laughter.

Venti and Wise study this question using the six Retirement History Surveys, from 1969 and 1979. They make use of the fact that those members of the sample who sell one house and buy another can adjust the level of their home equity at low cost, so the desired level of housing equity can be inferred from their behavior. Their behavior suggests that the mean difference between desired and actual house equity was very small, only \$1010. To put this in perspective, the desired proportion of wealth in housing equity was .53. The difference between the current and desired proportions was .0107. There was essentially no effect of age on desired housing equity. Also, whether the family had children or not had no effect on desired home equity, rendering a bequest explanation suspect. Venti and Wise conclude (p. 23): "Most elderly are not liquidity constrained. And contrary to standard formulations of the life-cycle hypothesis, the typical elderly family has no desire to reduce housing equity."

### Liquidity Constraints or Debt Aversion?

In the face of much of the evidence on household consumption, many economists have developed models in which a portion of the population are assumed to be liquidity constrained, in that they cannot borrow to smooth consumption (Hayashi, 1985; Zeldes, 1989). In a model for underdeveloped countries which has much in common with the view presented here, Deaton (1989) assumes that the representative household is impatient and cannot borrow. Such models are important and illuminating. However, I believe that another important source of liquidity constraints are *self-imposed* rules used by households who simply do not like to be in debt.

The evidence presented by Venti and Wise is consistent with this view. The elderly who move do not want to take on a new mortgage if possible. Reverse mortgages (in which a bank buys a house from an elderly family, lets them live in it, and pays them an annuity) have been extremely unpopular, in part, I think, because they are called mortgages.

As a group, homeowners are certainly not liquidity constrained. Manchester and Poterba estimate that in 1988 there was about \$3 trillion in home equity in the U.S., about \$2.5 trillion of which could be borrowed against on a tax-deductible basis even under the new (more stringent) law. (To give some sense of how big this number is, the total unsecured debt plus vehicle debt in 1985 was \$405 billion.) Manchester and Poterba report that when people do take out second mortgages, they do so primarily to make investments rather than to increase consumption. Roughly half the second mortgages are used to make home improvements, which keeps the funds in the same mental sub-account.<sup>11</sup>

<sup>11</sup>My colleague Jack Knetsch tells me that in British Columbia, Canada, homeowners over age 65 may, if they wish, postpone real estate taxes until they die or sell their home. At that point, the taxes (plus interest at a below-market rate) become due. Though many elderly seem cash constrained and are sitting on

Another relatively untapped source of liquidity is the cash value of whole life insurance. Most whole life insurance policies have a provision that policy holders can borrow against the proceeds, and in older policies the lending rate was very attractive. For example, in 1979 the average policy loan rate was 5.65 percent, while the short-term rate on Treasury bills averaged 9.5 percent. While policy holders could not get rich by borrowing against their policies, they could certainly borrow at a negative real rate. Warshawsky (1987), using 1979 data, found that less than 10 percent of those eligible to use such loans did so. He also examined the hypothesis that people gradually became aware of the arbitrage opportunity. He concluded that if policy holders were learning, they did it very slowly. According to his estimates, it would take 9 years for policy holders to make half of the appropriate adjustment.

The foregoing remarks should not be taken as a claim that liquidity constraints are not important for a significant portion of the population. Instead, I am arguing that there are two important sources of liquidity constraints: those imposed by capital markets, and those imposed by individuals on themselves. The latter source may well be more important.

## Commentary

Economists of prior generations offered much more behavioral treatments of saving behavior. For example, Irving Fisher (1930) stressed the roles of foresight, self-control, and habits. Even Friedman's (1957) permanent income hypothesis was a far cry from rational expectations. He said, "The permanent income component is not to be regarded as expected lifetime earnings. . . . It is to be interpreted as the mean income at any age regarded as permanent by the consumer unit in question, which in turn depends on its horizon and foresightedness."<sup>12</sup> The modern theories of saving have made the representative consumer increasingly sophisticated. Expectations are taken to be the same as those which would be held by a sophisticated econometrician. The problem seems to be that while economists have gotten increasingly sophisticated and clever, consumers have remained decidedly human. This leaves open the question of whose behavior we are trying to model. Along these lines, at an NBER conference a couple years ago I explained the difference between my models and Robert Barro's by saying that he assumes the agents in his model are as smart as he is, while I portray people as being as dumb as I am. Barro agreed with this assessment.

---

significant capital gains, especially in Vancouver where house prices have greatly appreciated, only one percent of those eligible have elected this option. Knetsch has suggested to the province that the plan might be more popular if a small change were made in the way the plan is described. Tell the homeowners that the tax liability would have to be paid by the person who *buys* the house. I would bet that this framing manipulation would increase utilization of the plan. Any takers?

<sup>12</sup>This point is stressed by Carroll and Summers (1989), who quote this passage.

## References

- Barro, Robert, *The Impact of Social Security on Private Saving*, Washington, DC: American Enterprise Institute, 1978.
- Barro, Robert, "The Ricardian Approach to Budget Deficits," *Journal of Economic Perspectives*, 1989, 3, 37–54.
- Cagan, Philip, *The Effect of Pension Plans on Aggregate Savings*, New York: National Bureau of Economic Research, 1965.
- Campbell, John, and Angus Deaton, "Is Consumption Too Smooth?", Working Paper, Department of Economics, Princeton University, 1987.
- Campbell, John Y., and N. Gregory Mankiw, "Consumption, Income, and Interest Rates: Reinterpreting the Time Series Evidence," National Bureau of Economic Research Working Paper #2924, 1989.
- Carroll, Chris, and Lawrence H. Summers, "Why Have Private Savings Rates in the United States and Canada Diverged?", *Journal of Monetary Economics*, 1987, 20, 249–279.
- Carroll, Chris, and Lawrence H. Summers, "Consumption Growth Parallels Income Growth: Some New Evidence," *Department of Economics, Harvard University*, 1989.
- Courant, Paul, Edward Gramlich, and John Laitner, "A Dynamic Micro Estimate of the Life Cycle Model." In Aaron, Henry J., and Gary Burtless, eds., *Retirement and Economic Behavior*. Washington D.C.: Brookings Institution, 1986.
- Deaton, Angus, "Life-cycle Models of Consumption: Is the Evidence Consistent with the Theory?" In Bewley, Truman F., ed., *Advances in Econometrics: 5th World Congress, Vol II* New York: Cambridge University Press, 1987, 121–8.
- Deaton, Angus, "Saving in Developing Countries: Theory and Review," Working Paper, Department of Economics, Princeton University, 1989.
- Feenberg, Daniel, and Jonathan Skinner, "Sources of IRA Saving." In Summers, Lawrence, ed., *Tax Policy and the Economy: Vol 3*. Cambridge: MIT Press, 1989, 25–46.
- Feinstein, Jonathan, and Daniel McFadden, "The Dynamics of Housing Demand by the Elderly: Wealth, Cash Flow, and Demographic Effects," National Bureau of Economic Research Working Paper #2471, 1987.
- Fisher, Irving, *The Theory of Interest*. London: MacMillan, 1930.
- Flavin, Marjorie, "The Adjustment of Consumption to Changing Expectations about Future Income," *Journal of Political Economy*, 1981, 89, 974–1009.
- Friedman, Milton, *A Theory of the Consumption Function*. Princeton: Princeton University Press, 1957.
- Green, Francis, "The Effect of Occupational Pension Schemes on Saving in the United Kingdom: A Test of the Life Cycle Hypothesis," *Economic Journal*, March 1981, 91, 136–144.
- Hall, Robert, and Fredrick Mishkin, "The Sensitivity of Consumption to Transitory Income: Estimates from Panel Data on Households," *Econometrica*, 1982, 50, 461–481.
- Hall, Robert, "Intertemporal Substitution in Consumption," *Journal of Political Economy*, 1988, 86, 339–57.
- Hatsopoulos, George N., Paul R. Krugman, and James M. Poterba, "Overconsumption: The Challenge to U.S. Economic Policy," American Business Conference, 1989.
- Hayashi, Fumio, "The Effect of Liquidity Constraints on Consumption: A Cross-Sectional Analysis," *Quarterly Journal of Economics*, 1985, 100, 183–206.
- Ishikawa, Tsuneo, and Kazuo Ueda, "The Bonus Payment System and Japanese Personal Savings." In Aoki, Masahiko, ed., *The Economic Analysis of the Japanese Firm*. Amsterdam: North Holland, 1984.
- Katona, George, *Private Pensions and Individual Saving*. Ann Arbor: University of Michigan Press, 1965.
- Kotlikoff, Laurence J., and Lawrence H. Summers, "The Role of Intergenerational Transfers in Aggregate Capital Formation," *Journal of Political Economy*, 1981, 89, 706–732.
- Krumm, Ronald, and Nancy Miller, "Household Savings, Homeownership, and Tenure Duration," Office of Real Estate Research Paper #38, 1986.
- Landsberger, Michael, "Windfall Income and Consumption: Comment," *American Economic Review*, June 1966, 56, 534–539.
- Manchester, Joyce M., and James M. Poterba, "Second Mortgages and Household Saving," *Regional Science and Urban Economics*, forthcoming, 1989.
- Shefrin, Hersh M., and Richard H. Thaler, "The Behavioral Life-Cycle Hypothesis," *Economic Inquiry*, 1988, XXVI, 609–643.
- Skinner, Jonathan, "Housing Wealth and Aggregate Saving," *Regional Science and Urban Economics*, forthcoming, 1989.
- Summers, Lawrence, and Chris Carroll, "Why is the U.S. Saving Rate So Low?" *Brookings Papers on Economic Activity*, 1987, 607–635.

**Summers, Lawrence**, "Reply to Galper and Byce," *Tax Notes*, June 9, 1986, 1014–16.

**Thaler, Richard H., and H. M. Shefrin**, "An Economic Theory of Self-Control," *Journal of Political Economy*, 1981, 89, 392–405.

**Venti, Steven F., and David A. Wise**, "But They Don't Want To Reduce Housing Equity," National Bureau of Economic Research Working Paper #2859, 1989.

**Venti, Steven F., and David A. Wise**, "Have IRAs Increased U.S. Saving?: Evidence From Consumer Expenditures Surveys," National Bu-

reau of Economic Research Working Paper #2217, 1987.

**Warshawsky, Mark**, "Sensitivity to Market Incentives: The Case of Policy Loans," *Review of Economics and Statistics*, 1987, 286–295.

**Wilcox, David W.**, "Social Security Benefits, Consumption Expenditure, and the Life Cycle Hypothesis," *Journal of Political Economy*, 1989, 97, 288–304.

**Zeldes, Stephen P.**, "Consumption and Liquidity Constraints: An Empirical Investigation," *Journal of Political Economy*, 1989, 97, 305–346.



This article has been cited by:

1. Qiang Zhou, Yefei Yang, Shaochuan Fu. 2022. Deep reinforcement learning approach for solving joint pricing and inventory problem with reference price effects. *Expert Systems with Applications* **195**, 116564. [[Crossref](#)]
2. Vikas Kakkar, King King Li. 2022. Cash or card? Impression management and restaurant tipping behavior. *Journal of Behavioral and Experimental Economics* **97**, 101837. [[Crossref](#)]
3. Luz Magdalena Salas. 2022. Savings and self-control: the effect of labelling. *Journal of Development Effectiveness* **3**, 1-19. [[Crossref](#)]
4. Jason Chun Yu Wong, Brian Blankenship, Johannes Urpelainen, Kanika Balani, Karthik Ganesan, Kapardhi Bharadwaj. 2022. Understanding electricity billing preferences in rural and urban India: Evidence from a conjoint experiment. *Energy Economics* **106**, 105735. [[Crossref](#)]
5. Yan Vieites, Rafael Goldszmidt, Eduardo B Andrade. 2022. Social Class Shapes Donation Allocation Preferences. *Journal of Consumer Research* **48**:5, 775-795. [[Crossref](#)]
6. Jean-Francois Gajewski, Luc Meunier, Sima Ohadi. 2022. Do sources of money matter in risk-taking behaviour?. *Applied Economics* **54**:4, 443-466. [[Crossref](#)]
7. Yener Coskun, Nicholas Apergis, Esra Alp Coskun. 2022. Nonlinear responses of consumption to wealth, income, and interest rate shocks. *Empirical Economics* **19**. . [[Crossref](#)]
8. Peter A. Forsyth. 2022. Short term decumulation strategies for underspending retirees. *Insurance: Mathematics and Economics* **102**, 56-74. [[Crossref](#)]
9. Janina Isabel Steinert, Rucha Vasumati Satish, Felix Stips, Sebastian Vollmer. 2022. Commitment or concealment? Impacts and use of a portable saving device: Evidence from a field experiment in urban India. *Journal of Economic Behavior & Organization* **193**, 367-398. [[Crossref](#)]
10. Alexander James, Nathaly M. Rivera. 2022. Oil, politics, and “Corrupt Bastards”. *Journal of Environmental Economics and Management* **111**, 102599. [[Crossref](#)]
11. Sefa Awaworyi Churchill, Russell Smyth. 2021. Locus of control and energy poverty. *Energy Economics* **104**, 105648. [[Crossref](#)]
12. Mengyuan Zhou. 2021. Does the Source of Inheritance Matter in Bequest Attitudes? Evidence from Japan. *Journal of Family and Economic Issues* **70**. . [[Crossref](#)]
13. Kristen McNeill, Rachael Pierotti. 2021. Reason-giving for resistance: obfuscation, justification and earmarking in resisting informal financial assistance. *Socio-Economic Review* **87**. . [[Crossref](#)]
14. Catherine A. Armstrong Soule, Sara Hanson. 2021. Counting Monopoly Money Twice: Resale Discounting in Consumer-to-Consumer Exchange. *Journal of the Association for Consumer Research* **6**:4, 447-461. [[Crossref](#)]
15. Jiaping Zhang, Huirong Zhang, Xiaomei Gong. 2021. Mobile payment and rural household consumption: Evidence from China. *Telecommunications Policy* **1**, 102276. [[Crossref](#)]
16. Joseph Emmanuel Tetteh, Christopher Boachie. 2021. Are the saving decision patterns of bank customers also clouded by psychological biases? Evidence from Ghana. *Review of Behavioral Finance* **ahead-of-print**:ahead-of-print. . [[Crossref](#)]
17. Olga Kondratjeva, Stephen P. Roll, Mathieu Despard, Michal Grinstein-Weiss. 2021. The impact of state earned income tax credit increases on material and medical hardship. *Journal of Consumer Affairs* **55**:3, 872-910. [[Crossref](#)]
18. Peter A. Forsyth, Kenneth R. Vetzal, Graham Westmacott. 2021. OPTIMAL CONTROL OF THE DECUMULATION OF A RETIREMENT PORTFOLIO WITH VARIABLE SPENDING AND DYNAMIC ASSET ALLOCATION. *ASTIN Bulletin* **51**:3, 905-938. [[Crossref](#)]

19. Govind S. Iyer, Steven E. Kaszak. 2021. What do taxpayers prefer: Lower taxes or a better year-end position? A research note. *Journal of Accounting and Public Policy* 47, 106902. [[Crossref](#)]
20. Sarantis Tsiaplias. 2021. Consumer inflation expectations, income changes and economic downturns. *Journal of Applied Econometrics* 36:6, 784-807. [[Crossref](#)]
21. Liron Rozenkrantz, Anila M. D'Mello, John D.E. Gabrieli. 2021. Enhanced rationality in autism spectrum disorder. *Trends in Cognitive Sciences* 25:8, 685-696. [[Crossref](#)]
22. Sumit Agarwal, Amit Bubna, Molly Lipscomb. 2021. Timing to the Statement: Understanding Fluctuations in Consumer Credit Use. *Management Science* 67:8, 5124-5144. [[Crossref](#)]
23. Jing Jian Xiao, Chengyang Yan, Piotr Bialowolski, Nilton Porto. 2021. Consumer debt holding, income and happiness: evidence from China. *International Journal of Bank Marketing* 39:5, 789-809. [[Crossref](#)]
24. Sungyong Chun, Devon S. Johnson. 2021. The effects of mental budgeting and pain of payment on the financial decision making of socially excluded people. *International Journal of Bank Marketing* 39:5, 886-899. [[Crossref](#)]
25. Brian Danley, Erlend Dancke Sandorf, Danny Campbell. 2021. Putting your best fish forward: Investigating distance decay and relative preferences for fish conservation. *Journal of Environmental Economics and Management* 108, 102475. [[Crossref](#)]
26. Sesil Lim, Bas Donkers, Patrick van Dijk, Benedict G. C. Dellaert. 2021. Digital customization of consumer investments in multiple funds: virtual integration improves risk–return decisions. *Journal of the Academy of Marketing Science* 49:4, 723-742. [[Crossref](#)]
27. Arber Tasimi, Susan A. Gelman. 2021. A Dollar Is a Dollar Is a Dollar, or Is It? Insights From Children's Reasoning About “Dirty Money”. *Cognitive Science* 45:4. . [[Crossref](#)]
28. Deepak Varshney, Anjani Kumar, Ashok K. Mishra, Shahidur Rashid, Pramod K. Joshi. 2021. COVID -19, Government Transfer Payments, and Investment Decisions in Farming Business: Evidence from Northern India. *Applied Economic Perspectives and Policy* 43:1, 248-269. [[Crossref](#)]
29. Peter John Robinson, W. J. Wouter Botzen, Howard Kunreuther, Shereen J. Chaudhry. 2021. Default options and insurance demand. *Journal of Economic Behavior & Organization* 183, 39-56. [[Crossref](#)]
30. Arye L. Hillman. 2021. Harming a favored side: an anomaly with supreme values and good intentions. *Public Choice* 186:3-4, 275-285. [[Crossref](#)]
31. By Uros Djuric, Michael Neugart. 2021. Helicopter money: survey evidence on expectation formation and consumption behaviour. *Oxford Economic Papers* 73:1, 273-294. [[Crossref](#)]
32. Bertrand Achou. 2021. Housing liquidity and long-term care insurance demand: A quantitative evaluation. *Journal of Public Economics* 194, 104353. [[Crossref](#)]
33. Alberto do Amaral Júnior, Maria Paula Bertran. Debt and Sustainable Development 177-188. [[Crossref](#)]
34. Steffen Ronft. Behavior Patterns 313-366. [[Crossref](#)]
35. Yonghao Xu, Juanjuan Meng, Yu Zhang, Jeffrey Koo. 2021. How household consumption responds to credit card refunds. *Economics Letters* 198, 109683. [[Crossref](#)]
36. Marcin Wroński. 2021. Does Social Security Crowd out Private Wealth? A Survey of the Literature. *SSRN Electronic Journal* 3. . [[Crossref](#)]
37. Shafic Mujabi, Victor Mbarika, Joseph Mpeera Ntayi. Credit Decision Rationality in the Money Lending Market 1-15. [[Crossref](#)]
38. Kay Blaufus, Malte Chirvi, Hans-Peter Huber, Ralf Maiterth, Caren Sureth-Sloane. 2020. Tax Misperception and its Effects on Decision Making – Literature Review and Behavioral Taxpayer Response Model. *European Accounting Review* 7, 1-34. [[Crossref](#)]



39. Ulf J. J. Hahnel, Gilles Chatelain, Beatrice Conte, Valentino Piana, Tobias Brosch. 2020. Mental accounting mechanisms in energy decision-making and behaviour. *Nature Energy* 5:12, 952-958. [[Crossref](#)]
40. Boris Houenou, Ecce F. Djogbenou. 2020. Predicting Household's Mobile Banking Saving Behavior in Western Kenya: An Algorithmic Approach. *Journal of African Development* 21:1, 41-67. [[Crossref](#)]
41. Bronson S Argyle, Taylor D Nadauld, Christopher J Palmer. 2020. Monthly Payment Targeting and the Demand for Maturity. *The Review of Financial Studies* 33:11, 5416-5462. [[Crossref](#)]
42. Anandi Mani. 2020. Mine, Yours or Ours? The Efficiency of Household Investment Decisions: An Experimental Approach. *The World Bank Economic Review* 34:3, 575-596. [[Crossref](#)]
43. Tomer Blumkin, Haim Pinhas, Ro'i Zultan. 2020. Wage Subsidies and Fair Wages. *European Economic Review* 127, 103497. [[Crossref](#)]
44. Johannes Becker, Daniel Hopp, Michael Kriebel. 2020. Mental accounting of public funds – The flypaper effect in the lab. *Journal of Economic Behavior & Organization* 176, 321-336. [[Crossref](#)]
45. Ivone Vieira Pereira, César Augusto Tibúrcio Silva. 2020. The influence of internal and external rewards on people's behavior regarding tax evasion practices in Brazil. *Revista Contabilidade & Finanças* 31:83, 228-243. [[Crossref](#)]
46. Arzum Akkaş, Nachiketa Sahoo. 2020. Reducing Product Expiration by Aligning Salesforce Incentives: A Data-driven Approach. *Production and Operations Management* 29:8, 1992-2009. [[Crossref](#)]
47. Dániel Horn, Hubert János Kiss. 2020. Time preferences and their life outcome correlates: Evidence from a representative survey. *PLOS ONE* 15:7, e0236486. [[Crossref](#)]
48. Eamonn Ferguson, Alexandra Hill, Michael Lam, Claire Reynolds, Katy Davison, Claire Lawrence, Susan R Brailsford. 2020. A typology of blood donor motivations. *Transfusion* 32. . [[Crossref](#)]
49. Martina Mikeszová, Martin Lux. 2020. Dilemmas of housing-asset-based welfare in the post-socialist context: the case of the Czech Republic. *International Journal of Housing Policy* 20:3, 367-389. [[Crossref](#)]
50. Alastair Berg. 2020. The Identity, Fungibility and Anonymity of Money. *Economic Papers: A journal of applied economics and policy* 39:2, 104-117. [[Crossref](#)]
51. Nirup M. Menon, Mikko T. Siponen. 2020. Executives' Commitment to Information Security. *ACM SIGMIS Database: the DATABASE for Advances in Information Systems* 51:2, 36-53. [[Crossref](#)]
52. Berber Kramer, David Kunst. 2020. Intertemporal Choice and Income Regularity: Non-Fungibility in the Timing of Income among Kenyan Farmers. *The Journal of Development Studies* 56:5, 1048-1064. [[Crossref](#)]
53. Trang Hoang, James R. Harrington. 2020. Tax incentive and household saving strategy: A regression discontinuity approach to catch-up contributions. *The Social Science Journal* 91, 1-16. [[Crossref](#)]
54. E. Fouksman. 2020. The moral economy of work: Demanding jobs and deserving money in South Africa. *Economy and Society* 49:2, 287-311. [[Crossref](#)]
55. Markus Fels. 2020. Mental Accounting, Access Motives, and Overinsurance\*. *The Scandinavian Journal of Economics* 122:2, 675-701. [[Crossref](#)]
56. Sezer Ülkü, Chris Hydock, Shiliang Cui. 2020. Making the Wait Worthwhile: Experiments on the Effect of Queueing on Consumption. *Management Science* 66:3, 1149-1171. [[Crossref](#)]
57. Shankar Ghimire, Kul Prasad Kapri. 2020. Does the Source of Remittance Matter? Differentiated Effects of Earned and Unearned Remittances on Agricultural Productivity. *Economies* 8:1, 8. [[Crossref](#)]
58. Rahul Kumar Sett. 2020. Inflexible microcredit contracts and their discontents: A theoretical perspective based on consumer psychology. *IIMB Management Review* 32:1, 96-107. [[Crossref](#)]

59. Jing Dong, Junni L Zhang, Shuxi Zeng, Fan Li. 2020. Subgroup balancing propensity score. *Statistical Methods in Medical Research* **29**:3, 659-676. [[Crossref](#)]
60. Alvaro Mezza, Daniel Ringo, Shane Sherlund, Kamila Sommer. 2020. Student Loans and Homeownership. *Journal of Labor Economics* **38**:1, 215-260. [[Crossref](#)]
61. Alberto do Amaral Júnior, Maria Paula Bertran. Debt and Sustainable Development 1-12. [[Crossref](#)]
62. Sumit Agarwal, Wenlan Qian, Ruth Tan. Consumption 97-137. [[Crossref](#)]
63. Sumit Agarwal, Wenlan Qian, Ruth Tan. Introduction 1-28. [[Crossref](#)]
64. Kay Blaufus, Malte Chirvi, Hans-Peter Huber, Ralf Maiterth, Caren Sureth-Sloane. 2020. Tax Misperception and Its Effects on Decision Making – a Literature Review. *SSRN Electronic Journal* . [[Crossref](#)]
65. Steve Heinke, Adrian Leuenberger, Jörg Rieskamp. 2020. This Time Is Different: On Similarity and Risk Taking After Experienced Gains and Losses. *SSRN Electronic Journal* . [[Crossref](#)]
66. Yonghao Xu, Juanjuan Meng, Yu Zhang, Jeffrey Koo. 2020. Credit Card Refunds and Consumption Responses. *SSRN Electronic Journal* . [[Crossref](#)]
67. Asaf Bernstein, Peter Koudijs. 2020. Mortgage Amortization and Wealth Accumulation. *SSRN Electronic Journal* . [[Crossref](#)]
68. Mousumi Singha Mahapatra, Ramkumar Mishra. 2020. Behavioral influence and financial decision of individuals: A study on mental accounting process among Indian households. *Cogent Economics & Finance* **8**:1, 1827762. [[Crossref](#)]
69. Tomasz Sulka. 2020. Planning and Saving for Retirement. *SSRN Electronic Journal* . [[Crossref](#)]
70. Antonio Gargano, Alberto G. Rossi. 2020. There's an App for That: Goal-Setting and Saving in the FinTech Era. *SSRN Electronic Journal* . [[Crossref](#)]
71. Claire Célerier, Adrien Matray. 2019. Bank-Branch Supply, Financial Inclusion, and Wealth Accumulation. *The Review of Financial Studies* **32**:12, 4767-4809. [[Crossref](#)]
72. Thomas A. Loughran. 2019. Behavioral criminology and public policy. *Criminology & Public Policy* **18**:4, 737-758. [[Crossref](#)]
73. Philippe d'Astous. 2019. Responses to an anticipated increase in cash on hand: Evidence from term loan repayments. *Journal of Banking & Finance* **108**, 105649. [[Crossref](#)]
74. Silvio Daidone, Benjamin Davis, Sudhanshu Handa, Paul Winters. 2019. The Household and Individual-Level Productive Impacts of Cash Transfer Programs in Sub-Saharan Africa. *American Journal of Agricultural Economics* **101**:5, 1401-1431. [[Crossref](#)]
75. T. R. Harmon-Kizer. 2019. Let the Borrower Beware: Towards a Framework for Debiasing Rollover Behavior in the Payday Loan Industry. *Journal of Consumer Policy* **42**:2, 245-266. [[Crossref](#)]
76. Robert L. Clark, Robert G. Hammond, Christelle Khalaf. 2019. Planning for Retirement? The Importance of Time Preferences. *Journal of Labor Research* **40**:2, 127-150. [[Crossref](#)]
77. Pronobesh Banerjee, Promothesh Chatterjee, Sanjay Mishra, Anubhav A. Mishra. 2019. Loss is a loss, why categorize it? Mental accounting across cultures. *Journal of Consumer Behaviour* **18**:2, 77-88. [[Crossref](#)]
78. Adam Eric Greenberg, Hal E. Herschfield. 2019. On shifting consumers from high-interest to low-interest debt. *FINANCIAL PLANNING REVIEW* **2**:1, e1035. [[Crossref](#)]
79. Hanskje Nagel, Laura Rosendahl Huber, Mirjam Van Praag, Sjoerd Goslinga. 2019. The effect of a tax training program on tax compliance and business outcomes of starting entrepreneurs: Evidence from a field experiment. *Journal of Business Venturing* **34**:2, 261-283. [[Crossref](#)]

80. Chi Xie, Xing Wu, Stephen Boyles. 2019. Traffic equilibrium with a continuously distributed bound on travel weights: the rise of range anxiety and mental account. *Annals of Operations Research* **273**:1-2, 279-310. [[Crossref](#)]
81. Joshua Conrad Jackson, Virginia K. Choi, Michele J. Gelfand. 2019. Revenge: A Multilevel Review and Synthesis. *Annual Review of Psychology* **70**:1, 319-345. [[Crossref](#)]
82. Andrew Schumann. Introduction 1-26. [[Crossref](#)]
83. Qianwen Li, Ruyin Long, Hong Chen, Feiyu Chen, Xiu Cheng. 2019. Chinese urban resident willingness to pay for green housing based on double-entry mental accounting theory. *Natural Hazards* **95**:1-2, 129-153. [[Crossref](#)]
84. Jean-Pierre Dubé. Microeconomic models of consumer demand 1-68. [[Crossref](#)]
85. Francesco Cerigioni, Simone Galperti. 2019. Listing Specs: The Effect of Attribute Orders on Choice. *SSRN Electronic Journal* . [[Crossref](#)]
86. Alessandro Roncaglia. . [[Crossref](#)]
87. José Luis Iparraguirre. Behavioural Economics and Individual Ageing 337-368. [[Crossref](#)]
88. Gregory Duff Morton. 2019. The power of lump sums: Using maternity payment schedules to reduce the gender asset gap in households reached by Brazil's Bolsa Família conditional cash transfer. *World Development* **113**, 352-367. [[Crossref](#)]
89. Chadwick J. Miller, Michael A. Wiles, Sungho Park. 2019. Trading on Up: An Examination of Factors Influencing the Degree of Upgrade: Evidence from Cash for Clunkers. *Journal of Marketing* **83**:1, 151-172. [[Crossref](#)]
90. Xi Chen, Tianyu Wang, Susan H. Busch. 2019. Does money relieve depression? Evidence from social pension expansions in China. *Social Science & Medicine* **220**, 411-420. [[Crossref](#)]
91. Xiaohui Peng, Li Zhao, Chengyan Yue, David Ahlstrom. 2018. Are different income sources fungible? The effects of agricultural subsidy and disaster relief on household consumption in China. *International Food and Agribusiness Management Review* **21**:8, 1153-1166. [[Crossref](#)]
92. Pascal Seppecher, Isabelle L. Salle, Marc Lavoie. 2018. What drives markups? Evolutionary pricing in an agent-based stock-flow consistent macroeconomic model. *Industrial and Corporate Change* **27**:6, 1045-1067. [[Crossref](#)]
93. Rachel L. Ruttan, Brian J. Lucas. 2018. Cogs in the machine: The prioritization of money and self-dehumanization. *Organizational Behavior and Human Decision Processes* **149**, 47-58. [[Crossref](#)]
94. Marie-Hélène Broihanne, Hava Orkut. 2018. Investment goals and mental accounting in French retail clients. *Finance* **Vol. 39**:1, 107-144. [[Crossref](#)]
95. Ewelina Marek, Charles Raux, Dirk Engelmann. 2018. Personal carbon allowances: Can a budget label do the trick?. *Transport Policy* **69**, 170-178. [[Crossref](#)]
96. Ewelina M. Marek. 2018. Social learning under the labeling effect: Exploring travellers' behavior in social dilemmas. *Transportation Research Part F: Traffic Psychology and Behaviour* **58**, 511-527. [[Crossref](#)]
97. Derek Messacar. 2018. Crowd-Out, Education, and Employer Contributions to Workplace Pensions: Evidence from Canadian Tax Records. *The Review of Economics and Statistics* **100**:4, 648-663. [[Crossref](#)]
98. Piotr Białowolski. 2018. Hard Times! How do Households Cope with Financial Difficulties? Evidence from the Swiss Household Panel. *Social Indicators Research* **139**:1, 147-161. [[Crossref](#)]
99. Felipe Kast, Stephan Meier, Dina Pomeranz. 2018. Saving more in groups: Field experimental evidence from Chile. *Journal of Development Economics* **133**, 275-294. [[Crossref](#)]

100. Noemi Pace, Silvio Daidone, Benjamin Davis, Luca Pellerano. 2018. Shaping Cash Transfer Impacts Through ‘Soft-Conditions’: Evidence from Lesotho†. *Journal of African Economies* 7. . [\[Crossref\]](#)
101. Hwang, Inuk, ###. 2018. The Source of Retirement Income and Health Care Expenditure among the Middle-Aged and Elderly. *Health and Social Welfare Review* 38:2, 227-256. [\[Crossref\]](#)
102. Omar Shehryar, Kelly Weidner, Dan Moshavi. 2018. Persuading the undecided: An interdisciplinary approach to increase public support for the arts. *Journal of Public Affairs* 18:2, e1652. [\[Crossref\]](#)
103. Janina I. Steinert, Juliane Zenker, Ute Filipiak, Ani Movsisyan, Lucie D. Cluver, Yulia Shenderovich. 2018. Do saving promotion interventions increase household savings, consumption, and investments in Sub-Saharan Africa? A systematic review and meta-analysis. *World Development* 104, 238-256. [\[Crossref\]](#)
104. Teck-Hua Ho, I. P. L. Png, Sadat Reza. 2018. Sunk Cost Fallacy in Driving the World’s Costliest Cars. *Management Science* 64:4, 1761-1778. [\[Crossref\]](#)
105. Ashlesha Khedekar-Swaminathan, Savita Kulkarni. 2018. Behavioral Challenges for Retirement Planning. *International Journal of Applied Behavioral Economics* 7:2, 15-29. [\[Crossref\]](#)
106. C. Yiwei Zhang, Abigail B. Sussman. The Role of Mental Accounting in Household Spending and Investing Decisions 65-96. [\[Crossref\]](#)
107. C. Yiwei Zhang, Abigail B. Sussman. 2018. Perspectives on mental accounting: An exploration of budgeting and investing. *Financial Planning Review* 1:1-2, e1011. [\[Crossref\]](#)
108. Sarah Kuypers, Ive Marx. 2018. Estimation of Joint Income-Wealth Poverty: A Sensitivity Analysis. *Social Indicators Research* 136:1, 117-137. [\[Crossref\]](#)
109. Philip B. Whyman. 2018. The local economic impact of shale gas extraction. *Regional Studies* 52:2, 184-196. [\[Crossref\]](#)
110. Richard B. McKenzie. The Human Brain: The Ultimate Scarce, Efficient, and Rational Resource 151-184. [\[Crossref\]](#)
111. Berber Kramer, David Kunst. 2018. Intertemporal Choice and Income Regularity: Non-Fungibility in a Lab-in-the-Field Experiment. *SSRN Electronic Journal* . [\[Crossref\]](#)
112. Weihuang Wong. 2018. The American Dream and Support for the Social Safety Net: Evidence from Experiment and Survey Data. *SSRN Electronic Journal* . [\[Crossref\]](#)
113. Jean-Pierre H. Dube. 2018. Microeconomic Models of Consumer Demand. *SSRN Electronic Journal* . [\[Crossref\]](#)
114. Kyle Rozema. 2018. The Unrecognized Relationship Between Tax Law and Public Assistance. *SSRN Electronic Journal* . [\[Crossref\]](#)
115. Alastair Berg. 2018. The Identity, Fungibility, and Anonymity of Money. *SSRN Electronic Journal* . [\[Crossref\]](#)
116. Jennifer Klein. 2017. House Price Shocks and Individual Divorce Risk in the United States. *Journal of Family and Economic Issues* 38:4, 628-649. [\[Crossref\]](#)
117. King-Yin Wong, Michael Lynn. 2017. The easy-money effect: credit card spending and hard-work reminders. *Journal of Consumer Marketing* 34:7, 541-551. [\[Crossref\]](#)
118. Yilan Xu. 2017. Mandatory savings, credit access and home ownership: The case of the housing provident fund. *Urban Studies* 54:15, 3446-3463. [\[Crossref\]](#)
119. Sunwoo Lee, Hyuncha Choe, Minjung Kim. 2017. Mental Accounting of Retired Household by the Type of Household Financial Strategy. *Korean Journal of Human Ecology* 26:5, 403-417. [\[Crossref\]](#)
120. Sied Hassen, Gunnar Köhlin. 2017. Does purchase price matter for the waiting time to start using energy efficient technologies: Experimental evidence from rural Ethiopia?. *Energy Economics* 68, 133-140. [\[Crossref\]](#)

121. Timo Hener. 2017. Effects of labeled child benefits on family savings. *Review of Economics of the Household* **15**:3, 759-777. [[Crossref](#)]
122. Jacinta C. Nwachukwu. 2017. Tenure and Spending Within UK Households at the End of the Recent Recession. *Social Indicators Research* **133**:3, 1075-1104. [[Crossref](#)]
123. Martin Fochmann, Johannes Hewig, Dirk Kiesewetter, Katharina Schüßler. 2017. Affective reactions influence investment decisions: evidence from a laboratory experiment with taxation. *Journal of Business Economics* **87**:6, 779-808. [[Crossref](#)]
124. Florian Chávez-Juárez. 2017. On the Role of Agent-based Modeling in the Theory of Development Economics. *Review of Development Economics* **21**:3, 713-730. [[Crossref](#)]
125. John Beshears, James J. Choi, David Laibson, Brigitte C. Madrian. 2017. Does Aggregated Returns Disclosure Increase Portfolio Risk Taking?. *The Review of Financial Studies* **30**:6, 1971-2005. [[Crossref](#)]
126. Marissa A. Sharif, Suzanne B. Shu. 2017. The Benefits of Emergency Reserves: Greater Preference and Persistence for Goals that Have Slack with a Cost. *Journal of Marketing Research* **54**:3, 495-509. [[Crossref](#)]
127. Marek Palasinski, Lorraine Bowman-Grieve. 2017. Tackling cyber-terrorism: Balancing surveillance with counter-communication. *Security Journal* **30**:2, 556-568. [[Crossref](#)]
128. Anne M. Mandich, Jeffrey H. Dorfman. 2017. The Wage and Job Impacts of Hospitals on Local Labor Markets. *Economic Development Quarterly* **31**:2, 139-148. [[Crossref](#)]
129. Alejandro Ponce, Enrique Seira, Guillermo Zamarripa. 2017. Borrowing on the Wrong Credit Card? Evidence from Mexico. *American Economic Review* **107**:4, 1335-1361. [[Abstract](#)] [[View PDF article](#)] [[PDF with links](#)]
130. Arber Tasimi, Susan A. Gelman. 2017. Dirty Money: The Role of Moral History in Economic Judgments. *Cognitive Science* **41**, 523-544. [[Crossref](#)]
131. Luckas Sabioni Lopes. 2017. Testando teorias para o consumo agregado no Brasil. *Nova Economia* **27**:1, 209-240. [[Crossref](#)]
132. Satakhun Kosavinta, Donyaprueth Krairit, Do Ba Khang. 2017. Decision making in the pre-development stage of residential development. *Journal of Property Investment & Finance* **35**:2, 160-183. [[Crossref](#)]
133. Nilton Porto, J. Michael Collins. 2017. The Role of Refund Expectations in Savings: Evidence from Volunteer Income Tax Preparation Programs in the United States. *Journal of Consumer Affairs* **51**:1, 183-199. [[Crossref](#)]
134. Amit Sharma. 2017. Self-Rationing Efficiency of Repeated Eating-Out Expenses. *Journal of Hospitality & Tourism Research* **41**:3, 259-277. [[Crossref](#)]
135. Vighneswara Swamy. 2017. Wealth Effects and Macroeconomic Dynamics Evidence from Indian Economy. *SSRN Electronic Journal* . [[Crossref](#)]
136. Anja Schanbacher, David Faro, Simona Botti. 2017. The Influence of Future Income on Present Spending: Self-Continuity Facilitates Consumption Smoothing. *SSRN Electronic Journal* . [[Crossref](#)]
137. Anna Giza. Uczeń czarnoksiężnika czyli społeczna historia marketingu **185**, . [[Crossref](#)]
138. Arzum Akkas, Nachiketa Sahoo. 2017. Reducing Product Expiration by Aligning Salesforce Incentives: A Data-driven Approach. *SSRN Electronic Journal* . [[Crossref](#)]
139. Shanti Shanti. 2016. Mental Accounting in Managers' Preferences Related to Aggregation Versus Disaggregation Income Statement Items. *GATR Journal of Business and Economics Review* **1**:1, 26-33. [[Crossref](#)]

140. Deborah A. Cobb-Clark, Sonja C. Kassenboehmer, Mathias G. Sinning. 2016. Locus of control and savings. *Journal of Banking & Finance* **73**, 113-130. [[Crossref](#)]
141. Dean Karlan, Margaret McConnell, Sendhil Mullainathan, Jonathan Zinman. 2016. Getting to the Top of Mind: How Reminders Increase Saving. *Management Science* **62**:12, 3393-3411. [[Crossref](#)]
142. David W. Johnston, Sonja C. Kassenboehmer, Michael A. Shields. 2016. Financial decision-making in the household: Exploring the importance of survey respondent, health, cognitive ability and personality. *Journal of Economic Behavior & Organization* **132**, 42-61. [[Crossref](#)]
143. Grant Graziani, Wilbert van der Klaauw, Basit Zafar. 2016. Workers' Spending Response to the 2011 Payroll Tax Cuts. *American Economic Journal: Economic Policy* **8**:4, 124-159. [[Abstract](#)] [[View PDF article](#)] [[PDF with links](#)]
144. Christian Raschke. 2016. The Impact of the German Child Benefit on Household Expenditures and Consumption. *German Economic Review* **17**:4, 438-477. [[Crossref](#)]
145. Abigail B. Sussman, Rourke L. O'Brien. 2016. Knowing When to Spend: Unintended Financial Consequences of Earmarking to Encourage Savings. *Journal of Marketing Research* **53**:5, 790-803. [[Crossref](#)]
146. . Bibliography 147-150. [[Crossref](#)]
147. Cory Hallam, Gianluca Zanella, Carlos Alberto Dorantes Dosamantes, Cesar Cardenas. 2016. Measuring entrepreneurial intent? Temporal construal theory shows it depends on your timing. *International Journal of Entrepreneurial Behavior & Research* **22**:5, 671-697. [[Crossref](#)]
148. G. Ainslie. 2016. The Cardinal Anomalies that Led to Behavioral Economics: Cognitive or Motivational?. *Managerial and Decision Economics* **37**:4-5, 261-273. [[Crossref](#)]
149. Dylan Bugden, David Kay, Russell Glynn, Richard Stedman. 2016. The bundle below: Understanding unconventional oil and gas development through analysis of lease agreements. *Energy Policy* **92**, 214-219. [[Crossref](#)]
150. Christopher Ksoll, Helene Bie Lilleør, Jonas Helth Lønborg, Ole Dahl Rasmussen. 2016. Impact of Village Savings and Loan Associations: Evidence from a cluster randomized trial. *Journal of Development Economics* **120**, 70-85. [[Crossref](#)]
151. Javier López Bernardo, Engelbert Stockhammer, Félix López Martínez. 2016. A post Keynesian theory for Tobin's q in a stock-flow consistent framework. *Journal of Post Keynesian Economics* **39**:2, 256-285. [[Crossref](#)]
152. Tomasz Zalega. 2016. Incomes and Savings of Polish Seniors in View of Research Outcomes. *Problemy Zarzadzania* **59**:2/1, 135-155. [[Crossref](#)]
153. Tim S. Griesdorn, Dorothy B. Durband. 2016. Does Self-control Predict Wealth Creation Among Young Baby Boomers?. *Journal of Family and Economic Issues* **37**:1, 18-28. [[Crossref](#)]
154. Martin Farnham, Purvi Sevak. 2016. Housing Wealth and Retirement Timing. *CESifo Economic Studies* **62**:1, 26-46. [[Crossref](#)]
155. Travis A. Smith, Joshua P. Berning, Xiaosi Yang, Gregory Colson, Jeffrey H. Dorfman. 2016. The Effects of Benefit Timing and Income Fungibility on Food Purchasing Decisions among Supplemental Nutrition Assistance Program Households. *American Journal of Agricultural Economics* **98**:2, 564-580. [[Crossref](#)]
156. Daniel Cooper, Karen Dynan. 2016. WEALTH EFFECTS AND MACROECONOMIC DYNAMICS. *Journal of Economic Surveys* **30**:1, 34-55. [[Crossref](#)]
157. Seolwoo Park. Grip Your Mobile Phone If You Want to Control Your Impulsive Purchase: the Relationship Between Strength of Grip and Control of Impulsive Purchase 357-363. [[Crossref](#)]
158. Shinsuke Ikeda. Self-Control Problems of the Dual Self 67-111. [[Crossref](#)]



159. Eduardo A. Undurraga, Jere R. Behrman, William R. Leonard, Ricardo A. Godoy. 2016. The effects of community income inequality on health: Evidence from a randomized control trial in the Bolivian Amazon. *Social Science & Medicine* **149**, 66-75. [[Crossref](#)]
160. Allison Demeritt, Karla Hoff. "Small Miracles" — Behavioral Insights to Improve Development Policy: The World Development Report 2015 19-43. [[Crossref](#)]
161. Lasse Brune, Xavier Giné, Jessica Goldberg, Dean Yang. 2016. Facilitating Savings for Agriculture: Field Experimental Evidence from Malawi. *Economic Development and Cultural Change* **64**:2, 187-220. [[Crossref](#)]
162. Ned Augenblick. 2016. The Sunk-Cost Fallacy in Penny Auctions. *The Review of Economic Studies* **83**:1, 58-86. [[Crossref](#)]
163. Yue Bao, Ziyu Gao, Meng Xu. 2016. Traffic Assignment Under Tradable Credit Scheme: An Investigation Considering Travelers' Framing and Labeling of Credits. *IEEE Intelligent Transportation Systems Magazine* **8**:2, 74-89. [[Crossref](#)]
164. Noemi Pace, Luca Pellerano. 2016. Does 'Soft Conditionality' Increase the Impact of Cash Transfers on Desired Outcomes? Evidence from a Randomized Control Trial in Lesotho. *SSRN Electronic Journal* . [[Crossref](#)]
165. Uros Djuric, Michael Neugart. 2016. Helicopter Money: Survey Evidence on Expectation Formation and Consumption Behavior. *SSRN Electronic Journal* . [[Crossref](#)]
166. Renuka Sane, Susan Thomas. 2016. The Real Cost of Credit Constraints: Evidence from Micro-finance. *The B.E. Journal of Economic Analysis & Policy* **16**:1, 151-183. [[Crossref](#)]
167. Christian Knoller. 2016. MULTIPLE REFERENCE POINTS AND THE DEMAND FOR PROTECTED LIFE ANNUITIES : A N EXPERIMENTAL ANALYSIS. *Journal of Risk and Insurance* **83**:1, 163-179. [[Crossref](#)]
168. Daniel Monroy. 2016. Decisiones Inconscientes: Sesgo De Status Quo Y Políticas Públicas (Unaware Choices: Status Quo Bias and Public Policies). *SSRN Electronic Journal* **108** . [[Crossref](#)]
169. Janina Isabel Steinert, Ani Movsisyan, Juliane Zenker, Ute Filipiak, Yulia Shenderovich. 2016. Protocol for a Systematic Review: Saving Promotion Interventions for Improving Saving Behaviour and Reducing Poverty in Low- and Middle-Income Countries: A Systematic Review and Meta-Analysis. *Campbell Systematic Reviews* **12**:1, 1-58. [[Crossref](#)]
170. James J. Choi. 2015. Contributions to Defined Contribution Pension Plans. *Annual Review of Financial Economics* **7**:1, 161-178. [[Crossref](#)]
171. Agnieszka Gehringer. 2015. New evidence on the determinants of current accounts in the EU. *Empirica* **42**:4, 769-793. [[Crossref](#)]
172. Hal E. Herschfield, Abigail B. Sussman, Rourke L. O'Brien, Christopher J. Bryan. 2015. Leveraging Psychological Insights to Encourage the Responsible Use of Consumer Debt. *Perspectives on Psychological Science* **10**:6, 749-752. [[Crossref](#)]
173. Najy Benhassine, Florencia Devoto, Esther Duflo, Pascaline Dupas, Victor Pouliquen. 2015. Turning a Shove into a Nudge? A "Labeled Cash Transfer" for Education. *American Economic Journal: Economic Policy* **7**:3, 86-125. [[Abstract](#)] [[View PDF article](#)] [[PDF with links](#)]
174. Paul Sergius Koku, Sharan Jagpal. 2015. Do payday loans help the working poor?. *International Journal of Bank Marketing* **33**:5, 592-604. [[Crossref](#)]
175. Karen Dynan, Daniel Cooper. Household Wealth Effects and the US Macroeconomy 1-17. [[Crossref](#)]
176. Sophie Clot, Fano Andriamahefazafy, Gilles Grolleau, Lisette Ibanez, Philippe Méral. 2015. Compensation and Rewards for Environmental Services (CRES) and efficient design of contracts in developing countries. Behavioral insights from a natural field experiment. *Ecological Economics* **113**, 85-96. [[Crossref](#)]

177. Michel Strawczynski, Natalia Myronichev. 2015. The persuasive role of information: The case of EITC reminders by mail. *Public Policy and Administration* **30**:2, 115-144. [[Crossref](#)]
178. Jennifer Sykes, Katrin Križ, Kathryn Edin, Sarah Halpern-Meekin. 2015. Dignity and Dreams. *American Sociological Review* **80**:2, 243-267. [[Crossref](#)]
179. Ying-Fang Kao, K. Vela Velupillai. 2015. Behavioural economics: Classical and modern. *The European Journal of the History of Economic Thought* **22**:2, 236-271. [[Crossref](#)]
180. Yue Bao, Ziyu Gao, Meng Xu, Huijun Sun, Hai Yang. 2015. Travel mental budgeting under road toll: An investigation based on user equilibrium. *Transportation Research Part A: Policy and Practice* **73**, 1-17. [[Crossref](#)]
181. Fernando Jaramillo, Paul E. Spector. Sunk Cost Effect, Escalation of Commitment and the Principle of Fungibility: Consumers' Reactions to Membership Cards 148-154. [[Crossref](#)]
182. Ling Jiang, Christian Wagner, Bonnie Nardi. Not Just in it for the Money: A Qualitative Investigation of Workers' Perceived Benefits of Micro-task Crowdsourcing 773-782. [[Crossref](#)]
183. Markus Fels. 2015. Mental Accounting, Access Motives, and Overinsurance. *SSRN Electronic Journal* . [[Crossref](#)]
184. Theresa Kuchler. 2015. Sticking to Your Plan: Hyperbolic Discounting and Credit Card Debt Paydown. *SSRN Electronic Journal* . [[Crossref](#)]
185. Daniel Monroy. 2015. BEHAVIORAL ECONOMICS Y POLITICAS PUBLICAS: Algunos problemas y sus soluciones (Behavioral Economics and Public Policies: Some Problems and Their Solutions - In Spanish). *SSRN Electronic Journal* . [[Crossref](#)]
186. . Household finance 112-126. [[Crossref](#)]
187. Nora Skopek, Sandra Buchholz, Hans-Peter Blossfeld. 2014. National patterns of income and wealth inequality. *International Journal of Comparative Sociology* **55**:6, 463-488. [[Crossref](#)]
188. Timothy K.M. Beatty, Laura Blow, Thomas F. Crossley, Cormac O'Dea. 2014. Cash by any other name? Evidence on labeling from the UK Winter Fuel Payment. *Journal of Public Economics* **118**, 86-96. [[Crossref](#)]
189. Anat Bracha, Daniel Cooper. 2014. Asymmetric responses to income changes: The payroll tax increase versus tax refund in 2013. *Economics Letters* **124**:3, 534-538. [[Crossref](#)]
190. Daniel van Vuuren. 2014. FLEXIBLE RETIREMENT. *Journal of Economic Surveys* **28**:3, 573-593. [[Crossref](#)]
191. Hielke Buddelmeyer, Kyle Peyton. 2014. How Windfall Income Increases Gambling at Poker Machines. *Economic Record* **90**:289, 236-248. [[Crossref](#)]
192. ###, HwangDucksoon. 2014. The Response of Household Consumption to Income Tax Refunds. *Journal of Consumption Culture* **17**:1, 49-68. [[Crossref](#)]
193. Flóra Á Felső, Adriaan R. Soetevent. 2014. Broad and narrow bracketing in gift certificate spending. *European Economic Review* **66**, 284-302. [[Crossref](#)]
194. Eduardo A. Undurraga, Ariela Zycherman, Julie Yiu, Taps Bolivia Study Team, Ricardo A. Godoy. 2014. Savings at the Periphery of Markets: Evidence from Forager-Farmers in the Bolivian Amazon. *The Journal of Development Studies* **50**:2, 288-301. [[Crossref](#)]
195. Katherine L. Milkman, Julia A. Minson, Kevin G. M. Volpp. 2014. Holding the Hunger Games Hostage at the Gym: An Evaluation of Temptation Bundling. *Management Science* **60**:2, 283-299. [[Crossref](#)]
196. Ling Ying Zhang, Yong Jiang Shi, Qiang Lu. 2014. Consumer's Decision-Making Behavior in Online Shopping: An Integrated Analysis. *Applied Mechanics and Materials* **519-520**, 422-429. [[Crossref](#)]
197. Leona Tam, Utpal Dholakia. 2014. Saving in Cycles. *Psychological Science* **25**:2, 531-537. [[Crossref](#)]



198. Chelsea Helion, Thomas Gilovich. 2014. Gift Cards and Mental Accounting: Green-lighting Hedonic Spending. *Journal of Behavioral Decision Making* **59**, n/a-n/a. [[Crossref](#)]
199. Vanessa G. Perry. Consumers in Mortgage Markets 143-160. [[Crossref](#)]
200. Marcel Fafchamps, David McKenzie, Simon Quinn, Christopher Woodruff. 2014. Microenterprise growth and the flypaper effect: Evidence from a randomized experiment in Ghana. *Journal of Development Economics* **106**, 211-226. [[Crossref](#)]
201. Yilan Xu. 2014. Mandatory Saving, Credit Access and Homeownership: The Case of the Housing Provident Fund. *SSRN Electronic Journal* . [[Crossref](#)]
202. Akshay Shanker, Sacha Vidler. 2014. Offsets to Compulsory Superannuation: Do People Consciously Choose Their Level of Retirement Saving?. *SSRN Electronic Journal* . [[Crossref](#)]
203. Tugba Ucma, Ali Naci Karabulut, Ali Caglar Uzun. Understanding Consumer Behavior through Mental Accounting 1-17. [[Crossref](#)]
204. Claire Celerier, Adrien Matray. 2014. Mainstream Finance: Why Don't the Poor Participate? Evidence from Bank Branching Deregulation in the United States. *SSRN Electronic Journal* . [[Crossref](#)]
205. Orit E. Tykocinski, Thane S. Pittman. 2013. Money Imbued With Essence: How We Preserve, Invest, and Spend Inherited Money. *Basic and Applied Social Psychology* **35**:6, 506-514. [[Crossref](#)]
206. Justine S. Hastings, Jesse M. Shapiro. 2013. Fungibility and Consumer Choice: Evidence from Commodity Price Shocks\*. *The Quarterly Journal of Economics* **128**:4, 1449-1498. [[Crossref](#)]
207. Brian C. Cadena, Benjamin J. Keys. 2013. Can Self-Control Explain Avoiding Free Money? Evidence from Interest-Free Student Loans. *Review of Economics and Statistics* **95**:4, 1117-1129. [[Crossref](#)]
208. Bettina Lamla. 2013. Family background and the decision to provide for old age: a siblings approach. *Empirica* **40**:3, 483-504. [[Crossref](#)]
209. Manohar P. Sharma. 2013. International Contract-Based Migration, Remittances, and Household Well-Being in the Western Province of Sri Lanka. *International Migration* **51**, e216-e248. [[Crossref](#)]
210. Pascaline Dupas,, Jonathan Robinson. 2013. Why Don't the Poor Save More? Evidence from Health Savings Experiments. *American Economic Review* **103**:4, 1138-1171. [[Abstract](#)] [[View PDF article](#)] [[PDF with links](#)]
211. Eric Luis Uhlmann, Luke (Lei) Zhu. 2013. Money is essential: Ownership intuitions are linked to physical currency. *Cognition* **127**:2, 220-229. [[Crossref](#)]
212. Patti J. Fisher. 2013. Is There Evidence of Loss Aversion in Saving Behaviors in Spain?. *Journal of Family and Economic Issues* **34**:1, 41-51. [[Crossref](#)]
213. Sherif Khalifa, Ousmane Seck, Elwin Tobing. 2013. Housing wealth effect: Evidence from threshold estimation. *Journal of Housing Economics* **22**:1, 25-35. [[Crossref](#)]
214. Marieke Huysentruyt, Eva Lefevere, Carlo Menon. 2013. Dynamics of retail-bank branching in Antwerp (Belgium) 1991-2006: Evidence from micro-geographic data. *Journal of Banking & Finance* **37**:2, 291-304. [[Crossref](#)]
215. Grant Graziani, Wilbert van der Klaauw, Basit Zafar. 2013. A Boost in the Paycheck: Survey Evidence on Workers' Response to the 2011 Payroll Tax Cuts. *SSRN Electronic Journal* . [[Crossref](#)]
216. Teck Ho, Ivan P. L. Png, Sadat Reza. 2013. Sunk Cost Fallacy in Driving the World's Costliest Cars. *SSRN Electronic Journal* . [[Crossref](#)]
217. Dmitriy Glumov. 2013. How Did the Great Financial Crisis Affect Portfolio Allocations and Attitudes towards Risk? Evidence from the 'Survey of Consumer Finances'. *SSRN Electronic Journal* . [[Crossref](#)]
218. Daniel Cooper, Karen E. Dynan. 2013. Wealth Shocks and Macroeconomic Dynamics. *SSRN Electronic Journal* . [[Crossref](#)]

219. Christine Neill. 2013. What You Don't Know Can't Help You: Lessons of Behavioural Economics for Tax-Based Student Aid. *SSRN Electronic Journal* . [[Crossref](#)]
220. Brian Baugh, Itzhak Ben-David, Hoonsuk Park. 2013. Disentangling Financial Constraints, Precautionary Savings, and Myopia: Household Behavior Surrounding Federal Tax Returns. *SSRN Electronic Journal* . [[Crossref](#)]
221. Deborah A. Cobb-Clark, Sonja C. Kassenboehmer, Mathias Sinning. 2013. Locus of Control and Savings. *SSRN Electronic Journal* . [[Crossref](#)]
222. B. Rager, F.R. Lang, G.G. Wagner. 2012. Sparmotive von jungen, mittelalten und älteren Erwachsenen. *Zeitschrift für Gerontologie und Geriatrie* **45**:8, 742-747. [[Crossref](#)]
223. Raymond G. Batina. 2012. Capital tax competition and social security. *International Tax and Public Finance* **19**:6, 819-843. [[Crossref](#)]
224. Stephane Hess, Shepley Orr, Rob Sheldon. 2012. Consistency and fungibility of monetary valuations in transport: An empirical analysis of framing and mental accounting effects. *Transportation Research Part A: Policy and Practice* **46**:10, 1507-1516. [[Crossref](#)]
225. Catherine L. Kling,, Daniel J. Phaneuf,, Jinhua Zhao. 2012. From Exxon to BP: Has Some Number Become Better than No Number?. *Journal of Economic Perspectives* **26**:4, 3-26. [[Abstract](#)] [[View PDF article](#)] [[PDF with links](#)]
226. Tuomas A. Peltonen, Ricardo M. Sousa, Isabel S. Vansteenkiste. 2012. Wealth effects in emerging market economies. *International Review of Economics & Finance* **24**, 155-166. [[Crossref](#)]
227. Therese Jefferson, Ross Taplin. 2012. Relational aspects of decisions to sell. *The Journal of Socio-Economics* **41**:5, 697-704. [[Crossref](#)]
228. Ruby Mendenhall, Kathryn Edin, Susan Crowley, Jennifer Sykes, Laura Tach, Katrin Kriz, Jeffrey R. Kling. 2012. The Role of Earned Income Tax Credit in the Budgets of Low-Income Households. *Social Service Review* **86**:3, 367-400. [[Crossref](#)]
229. Markku Kaustia, Elias Rantapuska. 2012. Rational and behavioral motives to trade: Evidence from reinvestment of dividends and tender offer proceeds. *Journal of Banking & Finance* **36**:8, 2366-2378. [[Crossref](#)]
230. Jong Seok Lee, Mark Keil, Vijay Kasi. 2012. The Effect of an Initial Budget and Schedule Goal on Software Project Escalation. *Journal of Management Information Systems* **29**:1, 53-78. [[Crossref](#)]
231. Paul Dolan, Antony Elliott, Robert Metcalfe, Ivo Vlaev. 2012. Influencing Financial Behavior: From Changing Minds to Changing Contexts. *Journal of Behavioral Finance* **13**:2, 126-142. [[Crossref](#)]
232. Toru Suzuki. 2012. Complementarity of behavioral biases. *Theory and Decision* **72**:3, 413-430. [[Crossref](#)]
233. Roberto Dell'Anno, Paulo Mourao. 2012. Fiscal Illusion around the World. *Public Finance Review* **40**:2, 270-299. [[Crossref](#)]
234. Melissa A. Z. Knoll, Christopher R. Tamborini, Kevin Whitman. 2012. I Do ... Want to Save: Marriage and Retirement Savings in Young Households. *Journal of Marriage and Family* **74**:1, 86-100. [[Crossref](#)]
235. Russell N. James, Christopher Baker. 2012. Targeting wealthy donors: the dichotomous relationship of housing wealth with current and bequest giving. *International Journal of Nonprofit and Voluntary Sector Marketing* **17**:1, 25-32. [[Crossref](#)]
236. LAURA BLOW, IAN WALKER, YU ZHU. 2012. WHO BENEFITS FROM CHILD BENEFIT?. *Economic Inquiry* **50**:1, 153-170. [[Crossref](#)]
237. James C. Cox, Maroš Servátka, Radovan Vadovic. 2012. Status Quo Effects in Fairness Games: Reciprocal Responses to Acts of Commission vs. Acts of Omission. *SSRN Electronic Journal* . [[Crossref](#)]

238. Nadia Linciano, Paola Soccorso. 2012. La rilevazione della tolleranza al rischio degli investitori attraverso il questionario (Assessing Investors' Risk Tolerance through a Questionnaire). *SSRN Electronic Journal* . [[Crossref](#)]
239. Christian Raschke. 2012. The Impact of the German Child Benefit on Child Well-Being. *SSRN Electronic Journal* . [[Crossref](#)]
240. Nadia Linciano, Paola Soccorso. 2012. Assessing Investors' Risk Tolerance Through a Questionnaire. *SSRN Electronic Journal* . [[Crossref](#)]
241. Janneke Toussaint. 2011. Housing Assets as a Potential Solution for Financial Hardship: Households' Mental Accounts of Housing Wealth in Three European Countries. *Housing, Theory and Society* **28**:4, 320-341. [[Crossref](#)]
242. Marja Elsinga. 2011. A Qualitative Comparative Approach to the Role of Housing Equity in the Life Cycle. *International Journal of Housing Policy* **11**:4, 357-374. [[Crossref](#)]
243. Thomas Bishop, ###. 2011. Borrowing Constraints and the Marginal Propensity to Consume. *KDI Journal of Economic Policy* **33**:4, 1-25. [[Crossref](#)]
244. Peter Tufano. 2011. Just Keep My Money! Supporting Tax-Time Savings with US Savings Bonds. *American Economic Journal: Economic Policy* **3**:4, 172-200. [[Abstract](#)] [[View PDF article](#)] [[PDF with links](#)]
245. Kun-Lin Hsieh. 2011. Employing a recommendation expert system based on mental accounting and artificial neural networks into mining business intelligence for study abroad's P/S recommendations. *Expert Systems with Applications* **38**:12, 14376-14381. [[Crossref](#)]
246. Adair Morse. 2011. Payday lenders: Heroes or villains?. *Journal of Financial Economics* **102**:1, 28-44. [[Crossref](#)]
247. Jennifer Christie Siemens, Steven W. Kopp. 2011. The Influence of Online Gambling Environments on Self-Control. *Journal of Public Policy & Marketing* **30**:2, 279-293. [[Crossref](#)]
248. Gerrit Antonides, I. Manon de Groot, W. Fred van Raaij. 2011. Mental budgeting and the management of household finance. *Journal of Economic Psychology* **32**:4, 546-555. [[Crossref](#)]
249. Wei Yonggang, Su Xiaoling. Development of mental accounting in young children's economic decision making 5508-5511. [[Crossref](#)]
250. Scott Hankins, Mark Hoekstra, Paige Marta Skiba. 2011. The Ticket to Easy Street? The Financial Consequences of Winning the Lottery. *Review of Economics and Statistics* **93**:3, 961-969. [[Crossref](#)]
251. Toni Johnson. 2011. Socioeconomic and Institutional Factors that Facilitate and Prevent Low-Income African American Parents' Involvement in a Children's Savings Program. *Journal of Ethnic And Cultural Diversity in Social Work* **20**:3, 167-184. [[Crossref](#)]
252. Tal Shavit, Mosi Rosenboim, Miki Malul. 2011. Opportunity costs in buying and short selling—Do they really matter?. *Economics Letters* **112**:1, 122-124. [[Crossref](#)]
253. Monica Paiella. The Stock Market, Housing and Consumer Spending: A Survey of the Evidence on Wealth Effects 157-182. [[Crossref](#)]
254. Elisabeth Gsottbauer, Jeroen C. J. M. van den Bergh. 2011. Environmental Policy Theory Given Bounded Rationality and Other-regarding Preferences. *Environmental and Resource Economics* **49**:2, 263-304. [[Crossref](#)]
255. Thomas C. Kinnaman. 2011. The economic impact of shale gas extraction: A review of existing studies. *Ecological Economics* **70**:7, 1243-1249. [[Crossref](#)]
256. Tal Shavit, Avshalom M. Adam. 2011. A preliminary exploration of the effects of rational factors and behavioral biases on the managerial choice to invest in corporate responsibility. *Managerial and Decision Economics* **32**:3, 205-213. [[Crossref](#)]

257. Patti J. Fisher, Catherine P. Montalto. 2011. Loss Aversion and Saving Behavior: Evidence from the 2007 U.S. Survey of Consumer Finances. *Journal of Family and Economic Issues* 32:1, 4-14. [[Crossref](#)]
258. David Card, Michael Ransom. 2011. Pension Plan Characteristics and Framing Effects in Employee Savings Behavior. *Review of Economics and Statistics* 93:1, 228-243. [[Crossref](#)]
259. Vanessa Gail Perry. Charging Ahead: An Exploratory Study of Financial Decision-Making among Millennial Consumers 129-144. [[Crossref](#)]
260. Dallas Burtraw, Ian W. H. Parry. 2011. Options for Returning the Value of CO2 Emissions Allowances to Households. *SSRN Electronic Journal* . [[Crossref](#)]
261. Daniel J. van Vuuren. 2011. Flexible Retirement. *SSRN Electronic Journal* . [[Crossref](#)]
262. Nadia Linciano. 2011. Cognitive Biases and Instability of Preferences in the Portfolio Choices of Retail Investors Policy Implications of Behavioural Finance. *SSRN Electronic Journal* . [[Crossref](#)]
263. Maria Semenova. 2011. Save or Borrow – What Determines Russian Households' Financial Strategies?. *SSRN Electronic Journal* . [[Crossref](#)]
264. Fabio D'Orlando, Eleonora Sanfilippo. 2010. Behavioral foundations for the Keynesian consumption function. *Journal of Economic Psychology* 31:6, 1035-1046. [[Crossref](#)]
265. Bernadette Kamleitner, Erik Hoelzl, Erich Kirchler. 2010. Experiencing costs and benefits of a loan transaction: The role of cost-benefit associations. *Journal of Economic Psychology* 31:6, 1047-1056. [[Crossref](#)]
266. Francesco Guala. 2010. Extrapolation, Analogy, and Comparative Process Tracing. *Philosophy of Science* 77:5, 1070-1082. [[Crossref](#)]
267. Jinyong Lee. 2010. The Effect of Temporal Distance on Consumer Decision Making : Focusing on Comparative Analysis between Economic and Psychological Perspectives and Suggestions for Future Research. *Journal of Consumption Culture* 13:4, 201-222. [[Crossref](#)]
268. James C. Cox, Daniel T. Hall. 2010. Trust with Private and Common Property: Effects of Stronger Property Right Entitlements. *Games* 1:4, 527-550. [[Crossref](#)]
269. Akitaka Dohtani. 2010. A growth-cycle model of Solow-Swan type, I. *Journal of Economic Behavior & Organization* 76:2, 428-444. [[Crossref](#)]
270. Ricardo M. Sousa. 2010. Consumption, (dis)aggregate wealth, and asset returns. *Journal of Empirical Finance* 17:4, 606-622. [[Crossref](#)]
271. Tal Shavit, Shosh Shahrabani, Uri Benzion. 2010. Effect of price quoting on financial asset prices: an experimental analysis. *Applied Economics Letters* 17:12, 1219-1222. [[Crossref](#)]
272. Jeremy Cone, Thomas Gilovich. 2010. Understanding money's limits: People's beliefs about the income – Happiness correlation. *The Journal of Positive Psychology* 5:4, 294-301. [[Crossref](#)]
273. U Benzion, Y Cohen, T Shavit. 2010. The newsvendor problem with unknown distribution. *Journal of the Operational Research Society* 61:6, 1022-1031. [[Crossref](#)]
274. Mauro Mastrogiacomo. 2010. TESTING CONSUMERS' ASYMMETRIC PERCEPTION OF CHANGES IN HOUSEHOLD FINANCIAL SITUATION. *Review of Income and Wealth* 56:2, 327-350. [[Crossref](#)]
275. Marieke Huysentruyt,, Eva Lefevere. 2010. Child Benefit Support and Method of Payment: Evidence from a Randomized Experiment in Belgium. *American Economic Journal: Economic Policy* 2:2, 163-184. [[Abstract](#)] [[View PDF article](#)] [[PDF with links](#)]
276. Peter Howley, Stephen Hynes, Cathal O'Donoghue. 2010. The citizen versus consumer distinction: An exploration of individuals' preferences in Contingent Valuation studies. *Ecological Economics* 69:7, 1524-1531. [[Crossref](#)]

277. Eric S. Belsky. Housing Wealth Effects and Course of the US Economy: Theory, Evidence, and Policy Implications 82-104. [[Crossref](#)]
278. . Bibliographie 295-308. [[Crossref](#)]
279. Donald Lien, Pamela C. Smith. 2010. An income tax withholding model: Pervasiveness of overpayment. *Journal of Public Budgeting, Accounting & Financial Management* **22**:3, 325-342. [[Crossref](#)]
280. 2010. Editorial Board. *Journal of Public Budgeting, Accounting & Financial Management* **22**:3, 1-3. [[Crossref](#)]
281. Dean Karlan, Jonathan Morduch. Access to Finance 4703-4784. [[Crossref](#)]
282. Scott Hankins, Mark Hoekstra, Paige Marta Skiba. 2010. The Ticket to Easy Street? The Financial Consequences of Winning the Lottery. *SSRN Electronic Journal* . [[Crossref](#)]
283. Dean S. Karlan, Margaret McConnell, Sendhil Mullainathan, Jonathan Zinman. 2010. Getting to the Top of Mind: How Reminders Increase Saving. *SSRN Electronic Journal* . [[Crossref](#)]
284. James C. Cox, Daniel T. Hall. 2010. Trust with Private and Common Property: Effects of Stronger Property Right Entitlements. *SSRN Electronic Journal* . [[Crossref](#)]
285. Choi James J., Laibson David, Madrian Brigitte C.. 2009. Mental Accounting in Portfolio Choice: Evidence from a Flypaper Effect. *American Economic Review* **99**:5, 2085-2095. [[Abstract](#)] [[View PDF article](#)] [[PDF with links](#)]
286. Monica Paiella. 2009. THE STOCK MARKET, HOUSING AND CONSUMER SPENDING: A SURVEY OF THE EVIDENCE ON WEALTH EFFECTS. *Journal of Economic Surveys* **23**:5, 947-973. [[Crossref](#)]
287. Maren Jäger, Jan Engelke, Georg Wübker. 2009. Psychologische Aspekte des Pricing für die Praxis nutzen. *Marketing Review St. Gallen* **26**:5, 38-43. [[Crossref](#)]
288. Priyali Rajagopal, Jong-Youn Rha. 2009. The mental accounting of time. *Journal of Economic Psychology* **30**:5, 772-781. [[Crossref](#)]
289. Kam Ki Tang, Dennis Petrie, D.S. Prasada Rao. 2009. The income-climate trap of health development: A comparative analysis of African and Non-African countries. *Social Science & Medicine* **69**:7, 1099-1106. [[Crossref](#)]
290. Katherine L. Milkman, John Beshears. 2009. Mental accounting and small windfalls: Evidence from an online grocer. *Journal of Economic Behavior & Organization* **71**:2, 384-394. [[Crossref](#)]
291. James B. Whitaker. 2009. The Varying Impacts of Agricultural Support Programs on U.S. Farm Household Consumption. *American Journal of Agricultural Economics* **91**:3, 569-580. [[Crossref](#)]
292. Erich Kirchler, Stephan Muehlbacher, Erik Hoelzl, Paul Webley. 2009. Effort and Aspirations in Tax Evasion: Experimental Evidence. *Applied Psychology* **58**:3, 488-507. [[Crossref](#)]
293. Cletus C. Coughlin, Thomas A. Garrett. 2009. Income and Lottery Sales. *Public Finance Review* **37**:4, 447-469. [[Crossref](#)]
294. Tracy M. Turner, Heather Luea. 2009. Homeownership, wealth accumulation and income status. *Journal of Housing Economics* **18**:2, 104-114. [[Crossref](#)]
295. Chang-Keun Han, Michael Sherraden. 2009. Do institutions really matter for saving among low-income households? A comparative approach. *The Journal of Socio-Economics* **38**:3, 475-483. [[Crossref](#)]
296. Nicholas Dew, Saras Sarasathy, Stuart Read, Robert Wiltbank. 2009. Affordable loss: behavioral economic aspects of the plunge decision. *Strategic Entrepreneurship Journal* **3**:2, 105-126. [[Crossref](#)]
297. John A. Clithero, R. McKell Carter, Scott A. Huettel. 2009. Local pattern classification differentiates processes of economic valuation. *NeuroImage* **45**:4, 1329-1338. [[Crossref](#)]

298. Coco Krumme, Kwan Lee, Erik Ross. Concrete budgeting: A financial planning tool for intertemporal tradeoffs and just-in-time information 696-698. [[Crossref](#)]
299. James B. Whitaker, Anne Effland. 2009. Income Stabilization Through Government Payments: How is Farm Household Consumption Affected?. *Agricultural and Resource Economics Review* **38**:1, 36-48. [[Crossref](#)]
300. Jonathan Levav, A. Peter Mcgraw. 2009. Emotional Accounting: How Feelings about Money Influence Consumer Choice. *Journal of Marketing Research* **46**:1, 66-80. [[Crossref](#)]
301. Raphael Bostic, Stuart Gabriel, Gary Painter. 2009. Housing wealth, financial wealth, and consumption: New evidence from micro data. *Regional Science and Urban Economics* **39**:1, 79-89. [[Crossref](#)]
302. Nicola Miglietta, Marco Remondino. Modeling Cognitive Distortions of Behavioural Finance 204-209. [[Crossref](#)]
303. Adair Morse. 2009. Payday Lenders: Heroes or Villains?. *SSRN Electronic Journal* . [[Crossref](#)]
304. Giuseppe Cornicello. 2009. Consumption/Savings and Wealth Effect: A Literature Review. *SSRN Electronic Journal* . [[Crossref](#)]
305. Catherine J. Bell, Dan R. Gorin, Jeanne M. Hogarth. 2009. Does Financial Education Affect Soldiers' Financial Behavior?. *SSRN Electronic Journal* . [[Crossref](#)]
306. Guido Baltussen. 2009. Behavioral Finance: An Introduction. *SSRN Electronic Journal* . [[Crossref](#)]
307. Michael S. Barr, Jane K. Dokko. 2008. Third-Party Tax Administration: The Case of Low- and Moderate-Income Households. *Journal of Empirical Legal Studies* **5**:4, 963-981. [[Crossref](#)]
308. Todd L. Cherry, Jason F. Shogren. 2008. Self-interest, sympathy and the origin of endowments. *Economics Letters* **101**:1, 69-72. [[Crossref](#)]
309. Isabelle Brocas,, Juan D. Carrillo. 2008. The Brain as a Hierarchical Organization. *American Economic Review* **98**:4, 1312-1346. [[Abstract](#)] [[View PDF article](#)] [[PDF with links](#)]
310. John Quiggin. 2008. Stern and his critics on discounting and climate change: an editorial essay. *Climatic Change* **89**:3-4, 195-205. [[Crossref](#)]
311. Catherine T. Kenney. 2008. Father Doesnt Know Best? Parents Control of Money and Childrens Food Insecurity. *Journal of Marriage and Family* **70**:3, 654-669. [[Crossref](#)]
312. Jaoaqín Alegre, Llorenç Pou. 2008. Further evidence of excess sensitivity of consumption? Nonseparability among goods and heterogeneity across households. *Applied Economics* **40**:7, 931-948. [[Crossref](#)]
313. Katherine L. Milkman, John Leonard Beshears. 2008. Mental Accounting and Small Windfalls: Evidence from an Online Grocer. *SSRN Electronic Journal* . [[Crossref](#)]
314. Akos Lada. 2008. Marrying Behavioural Economics and Growth Theory. *SSRN Electronic Journal* . [[Crossref](#)]
315. Cletus C. Coughlin, Thomas A. Garrett. 2008. Income and Lottery Sales: Transfers Trump Income from Work and Wealth. *SSRN Electronic Journal* . [[Crossref](#)]
316. Monica Paiella. 2008. The Stock Market, Housing and Consumer Spending: A Survey of the Evidence on Wealth Effects. *SSRN Electronic Journal* . [[Crossref](#)]
317. Markku Kaustia, Elias Henrikki Rantapuska. 2008. Rational and Behavioral Motives to Trade: Evidence from Reinvestment of Dividends and Tender Offer Proceeds. *SSRN Electronic Journal* . [[Crossref](#)]
318. Michael S. Barr, Jane K. Dokko. 2008. Paying to Save: Tax Withholding and Asset Allocation among Low- and Moderate-Income Taxpayers. *SSRN Electronic Journal* . [[Crossref](#)]
319. . The Cambridge Handbook of Psychology and Economic Behaviour . [[Crossref](#)]



320. Bradley T. Heim. 2007. The Effect of Tax Rebates on Consumption Expenditures: Evidence from State Tax Rebates. *National Tax Journal* **60**:4, 685-710. [[Crossref](#)]
321. Charlie Wilson, Hadi Dowlatabadi. 2007. Models of Decision Making and Residential Energy Use. *Annual Review of Environment and Resources* **32**:1, 169-203. [[Crossref](#)]
322. Stephen M. Garcia, Oscar Ybarra. 2007. People accounting: Social category-based choice. *Journal of Experimental Social Psychology* **43**:5, 802-809. [[Crossref](#)]
323. Robert H. Scott. 2007. Credit Card Use and Abuse: A Veblen ian Analysis. *Journal of Economic Issues* **41**:2, 567-574. [[Crossref](#)]
324. William H. Redmond. 2007. Home Equity, Fungibility, and Consumption: The Increasing Rationalization of Society. *Review of Radical Political Economics* **39**:2, 201-213. [[Crossref](#)]
325. Tal Shavit, Uri Benzion, Ernan Haruvy. 2007. Risk aversion and under-hedging. *Journal of Economics and Business* **59**:3, 181-198. [[Crossref](#)]
326. Monica Paiella. 2007. Does wealth affect consumption? Evidence for Italy. *Journal of Macroeconomics* **29**:1, 189-205. [[Crossref](#)]
327. Nicholas Epley, Ayelet Gneezy. 2007. The framing of financial windfalls and implications for public policy. *The Journal of Socio-Economics* **36**:1, 36-47. [[Crossref](#)]
328. Greig Andrew Mill, Tom M. van Rensburg, Stephen Hynes, Conor Dooley. 2007. Preferences for multiple use forest management in Ireland: Citizen and consumer perspectives. *Ecological Economics* **60**:3, 642-653. [[Crossref](#)]
329. Greg Hannsgen. 2007. A Random Walk Down Maple Lane? A Critique of Neoclassical Consumption Theory with Reference to Housing Wealth. *Review of Political Economy* **19**:1, 1-20. [[Crossref](#)]
330. Fabio D'Orlando, Eleonora Sanfilippo. 2007. Behavioral Foundations for the Keynesian Consumption Function. *SSRN Electronic Journal* . [[Crossref](#)]
331. Jane Dokko, Michael S. Barr. 2007. Paying to Save: Tax Withholding and Asset Allocation among Low- and Moderate-Income Taxpayers. *SSRN Electronic Journal* . [[Crossref](#)]
332. Irene Daskalopoulou, Anastasia Petrou. 2006. Consumers' expenditures and perceived price fairness. *International Journal of Social Economics* **33**:11, 766-780. [[Crossref](#)]
333. Steve P. Fraser, William W. Jennings. 2006. Behavioral Asset Allocation for Foundations and Endowments. *The Journal of Wealth Management* **9**:3, 38-50. [[Crossref](#)]
334. John M. Quigley. 2006. Real estate portfolio allocation: The European consumers' perspective. *Journal of Housing Economics* **15**:3, 169-188. [[Crossref](#)]
335. Rayman Mohamed. 2006. The Psychology of Residential Developers. *Journal of Planning Education and Research* **26**:1, 28-37. [[Crossref](#)]
336. Nicholas Epley, Dennis Mak, Lorraine Chen Idson. 2006. Bonus of rebate?: the impact of income framing on spending and saving. *Journal of Behavioral Decision Making* **19**:3, 213-227. [[Crossref](#)]
337. Stephen D. Hill, Dixon Thompson. 2006. Understanding Managers' Views of Global Environmental Risk. *Environmental Management* **37**:6, 773-787. [[Crossref](#)]
338. LIVIO STRACCA. 2006. A NOTE ON LIQUIDITY AND REAL EQUILIBRIUM INTEREST RATES. *Macroeconomic Dynamics* **10**:3, 426-438. [[Crossref](#)]
339. Hwan Ho Ha, Jung Suk Hyun, Jae H. Pae. 2006. Consumers' "mental accounting" in response to unexpected price savings at the point of sale. *Marketing Intelligence & Planning* **24**:4, 406-416. [[Crossref](#)]
340. Lilia Maliar, Serguei Maliar. 2006. Indeterminacy in a log-linearized neoclassical growth model with quasi-geometric discounting. *Economic Modelling* **23**:3, 492-505. [[Crossref](#)]

341. Marianne Bertrand, Sendhil Mullainathan, Eldar Shafir. 2006. Behavioral Economics and Marketing in Aid of Decision Making among the Poor. *Journal of Public Policy & Marketing* **25**:1, 8-23. [[Crossref](#)]
342. Greg Hannsgen. 2006. A Random Walk Down Maple Lane? A Critique of Neoclassical Consumption Theory with Reference to Housing Wealth. *SSRN Electronic Journal* . [[Crossref](#)]
343. Marialuz Moreno Badia. 2006. Who Saves in Ireland? T+L3251he Micro Evidence. *IMF Working Papers* **06**:131, 1. [[Crossref](#)]
344. Orla Gough, Peter D. Sozou. 2005. Pensions and retirement savings: cluster analysis of consumer behaviour and attitudes. *International Journal of Bank Marketing* **23**:7, 558-570. [[Crossref](#)]
345. Kenneth A. Baerenklau, Bill Provencher. 2005. Static modeling of dynamic recreation behavior: Implications for prediction and welfare estimation. *Journal of Environmental Economics and Management* **50**:3, 617-636. [[Crossref](#)]
346. Carole B. Burgoyne, Brian Young, Catherine M. Walker. 2005. Deciding to give to charity: a focus group study in the context of the household economy. *Journal of Community & Applied Social Psychology* **15**:5, 383-405. [[Crossref](#)]
347. M. L. DeKay, T. G. Kim. 2005. When Things Don't Add Up: The Role of Perceived Fungibility in Repeated-Play Decisions. *Psychological Science* **16**:9, 667-672. [[Crossref](#)]
348. Darren Duxbury, Kevin Keasey, Hao Zhang, Shue Loong Chow. 2005. Mental accounting and decision making: Evidence under reverse conditions where money is spent for time saved. *Journal of Economic Psychology* **26**:4, 567-580. [[Crossref](#)]
349. Gerhard Illing, Ulrich Klüh. 2005. Vermögenspreise und Konsum: Neue Erkenntnisse, amerikanische Erfahrungen und europäische Herausforderungen\*. *Perspektiven der Wirtschaftspolitik* **6**:1, 1-22. [[Crossref](#)]
350. Donald Cox, Oded Stark. 2005. Bequests, Inheritances and Family Traditions. *SSRN Electronic Journal* . [[Crossref](#)]
351. Elias Henrikki Rantapuska. 2005. Do Investors Reinvest Dividends and Tender Offer Proceeds?. *SSRN Electronic Journal* . [[Crossref](#)]
352. Ricardo M. Sousa. 2005. Consumption, (Dis)Aggregate Wealth, and Asset Returns. *SSRN Electronic Journal* . [[Crossref](#)]
353. Keith T. Jones, Clement C. Chen. 2005. The effect of audit outcomes on evaluators' perceptions. *Managerial Auditing Journal* **20**:1, 5-18. [[Crossref](#)]
354. Knut Veisten, Hans Fredrik Hoen, Ståle Navrud, Jon Strand. 2004. Scope insensitivity in contingent valuation of complex environmental amenities. *Journal of Environmental Management* **73**:4, 317-331. [[Crossref](#)]
355. David H. Eaton, Martin I. Milkman. 2004. An Empirical Examination of the Factors that Influence the Mix of Cash and Oncash giving to Charity. *Public Finance Review* **32**:6, 610-630. [[Crossref](#)]
356. Andrew Henley. 2004. House Price Shocks, Windfall Gains and Hours of Work: British Evidence\*. *Oxford Bulletin of Economics and Statistics* **66**:4, 439-456. [[Crossref](#)]
357. Warren B Hsung. 2004. Parental net wealth and personal consumption. *Journal of Economic Behavior & Organization* **54**:4, 551-560. [[Crossref](#)]
358. Joseph E. Stiglitz. 2004. Information and the Change in the Paradigm in Economics, Part 2. *The American Economist* **48**:1, 17-49. [[Crossref](#)]
359. François Degeorge, Dirk Jenter, Alberto Moel, Peter Tufano. 2004. Selling company shares to reluctant employees: France Telecom's experience. *Journal of Financial Economics* **71**:1, 169-202. [[Crossref](#)]



360. Guy Debelle. 2004. Macroeconomic Implications of Rising Household Debt. *SSRN Electronic Journal* . [[Crossref](#)]
361. Francesco Guala. 2003. Experimental Localism and External Validity. *Philosophy of Science* **70**:5, 1195-1205. [[Crossref](#)]
362. Matthew D. Shapiro, Joel Slemrod. 2003. Consumer Response to Tax Rebates. *American Economic Review* **93**:1, 381-396. [[Citation](#)] [[View PDF article](#)] [[PDF with links](#)]
363. Yung-Ping Chen. 2003. Funding Long-Term Care. *Journal of Aging and Health* **15**:1, 15-44. [[Crossref](#)]
364. George Ainslie, John Monterosso. Hyperbolic Discounting as a Factor in Addiction 35-69. [[Crossref](#)]
365. Uri Ben-Zion, Yochanan Shachmurove, Yosef Yagil. 2003. How Good is the Exponential Function Discounting Formula?: An Experimental Study. *SSRN Electronic Journal* . [[Crossref](#)]
366. Mary E. Burfisher, Jeffrey W. Hopkins. 2003. Decoupled Payments: Household Income Transfers in Contemporary U.S. Agriculture. *SSRN Electronic Journal* . [[Crossref](#)]
367. Yehoshua Liebermann, Meyer Ungar. 2002. Efficiency of consumer intertemporal choice under life cycle cost conditions. *Journal of Economic Psychology* **23**:6, 729-748. [[Crossref](#)]
368. Adam Gifford. 2002. Emotion and self-control. *Journal of Economic Behavior & Organization* **49**:1, 113-130. [[Crossref](#)]
369. Todd L. Cherry, Peter Fryklblom, Jason F. Shogren. 2002. Hardnose the Dictator. *American Economic Review* **92**:4, 1218-1221. [[Citation](#)] [[View PDF article](#)] [[PDF with links](#)]
370. Eric Edmonds. 2002. Reconsidering the labeling effect for child benefits: evidence from a transition economy. *Economics Letters* **76**:3, 303-309. [[Crossref](#)]
371. Fred Graham, Alan G. Isaac. 2002. The behavioral life-cycle theory of consumer behavior: survey evidence. *Journal of Economic Behavior & Organization* **48**:4, 391-401. [[Crossref](#)]
372. S. Mullainathan. 2002. A Memory-Based Model of Bounded Rationality. *The Quarterly Journal of Economics* **117**:3, 735-774. [[Crossref](#)]
373. Nicholas S Souleles. 2002. Consumer response to the Reagan tax cuts. *Journal of Public Economics* **85**:1, 99-120. [[Crossref](#)]
374. Carrie M. Heilman, Kent Nakamoto, Ambar G. Rao. 2002. Pleasant Surprises: Consumer Response to Unexpected In-Store Coupons. *Journal of Marketing Research* **39**:2, 242-252. [[Crossref](#)]
375. Tatsuya Kameda, Masanori Takezawa, R.Scott Tindale, Christine M Smith. 2002. Social sharing and risk reduction. *Evolution and Human Behavior* **23**:1, 11-33. [[Crossref](#)]
376. Xavier Gabaix, David I. Laibson. 2002. The 6D Bias and the Equity Premium Puzzle. *SSRN Electronic Journal* . [[Crossref](#)]
377. Alexander Ludwig, Torsten Sløk. 2002. The Impact of Changes in Stock Prices and House Prices on Consumption in OECD Countries. *IMF Working Papers* **02**:1, 1. [[Crossref](#)]
378. Jeffrey R Brown. 2001. Private pensions, mortality risk, and the decision to annuitize. *Journal of Public Economics* **82**:1, 29-62. [[Crossref](#)]
379. Todd L. Cherry. 2001. Mental accounting and other-regarding behavior: Evidence from the lab. *Journal of Economic Psychology* **22**:5, 605-615. [[Crossref](#)]
380. Stefano G. Athanasoulis,, Robert J. Shiller. 2001. World Income Components: Measuring and Exploiting Risk-Sharing Opportunities. *American Economic Review* **91**:4, 1031-1054. [[Abstract](#)] [[View PDF article](#)] [[PDF with links](#)]
381. Guido W. Imbens,, Donald B. Rubin,, Bruce I. Sacerdote. 2001. Estimating the Effect of Unearned Income on Labor Earnings, Savings, and Consumption: Evidence from a Survey of Lottery Players. *American Economic Review* **91**:4, 778-794. [[Abstract](#)] [[View PDF article](#)] [[PDF with links](#)]

382. Martin Browning,, Thomas F. Crossley,. 2001. The Life-Cycle Model of Consumption and Saving. *Journal of Economic Perspectives* **15**:3, 3-22. [[Abstract](#)] [[View PDF article](#)] [[PDF with links](#)]
383. George-Marios Angeletos,, David Laibson,, Andrea Repetto,, Jeremy Tobacman,, Stephen Weinberg,. 2001. The Hyperbolic Consumption Model: Calibration, Simulation, and Empirical Evaluation. *Journal of Economic Perspectives* **15**:3, 47-68. [[Abstract](#)] [[View PDF article](#)] [[PDF with links](#)]
384. Bruno Heyndels. 2001. Asymmetries in the flypaper effect: empirical evidence for the Flemish municipalities. *Applied Economics* **33**:10, 1329-1334. [[Crossref](#)]
385. Alan Lewis. 2001. Good money, bad money: The case of socially responsible investment in UK. *World Futures* **56**:4, 399-408. [[Crossref](#)]
386. Joseph P. DeJuan, John J. Seater. 2001. Testing the Permanent Income Hypothesis with Classification Methods. *SSRN Electronic Journal* . [[Crossref](#)]
387. Karen E. Dynan, Dean M. Maki. 2001. Does Stock Market Wealth Matter for Consumption?. *SSRN Electronic Journal* . [[Crossref](#)]
388. Sendhil Mullainathan. 2001. A Memory Based Model of Bounded Rationality. *SSRN Electronic Journal* . [[Crossref](#)]
389. Henrik Svedsäter. 2000. Contingent valuation of global environmental resources: Test of perfect and regular embedding. *Journal of Economic Psychology* **21**:6, 605-623. [[Crossref](#)]
390. James M. Poterba,. 2000. Stock Market Wealth and Consumption. *Journal of Economic Perspectives* **14**:2, 99-118. [[Abstract](#)] [[View PDF article](#)] [[PDF with links](#)]
391. JAMES BANKS, CARL EMMERSON. 2000. Public and Private Pension Spending: Principles, Practice and the Need for Reform. *Fiscal Studies* **21**:1, 1-63. [[Crossref](#)]
392. DIANA J. BEAL. 2000. SAVING IN AUSTRALIA: HOW DO SAVERS DECIDE ON THE AMOUNT?. *Economic Papers: A journal of applied economics and policy* **19**:1, 33-43. [[Crossref](#)]
393. Francois Degeorge, Dirk C. Jenter, Alberto Moel, Peter Tufano. 2000. Selling Company Shares to Reluctant Employees: France Telecom's Experience. *SSRN Electronic Journal* . [[Crossref](#)]
394. Nicholas S. Souleles. 1999. The Response of Household Consumption to Income Tax Refunds. *American Economic Review* **89**:4, 947-958. [[Citation](#)] [[View PDF article](#)] [[PDF with links](#)]
395. Richard H. Thaler. 1999. Mental accounting matters. *Journal of Behavioral Decision Making* **12**:3, 183-206. [[Crossref](#)]
396. Niklas Karlsson, Tommy Gärling, Marcus Selart. 1999. Explanations of effects of prior income changes on buying decisions. *Journal of Economic Psychology* **20**:4, 449-463. [[Crossref](#)]
397. Philip Moon, Kevin Keasey, Darren Duxbury. 1999. Mental accounting and decision making:. *Journal of Economic Behavior & Organization* **38**:2, 145-153. [[Crossref](#)]
398. Daniel McFadden, Mark J. Machina, Jonathan Baron. Rationality for Economists? 73-110. [[Crossref](#)]
399. Sondra G Beverly, Michael Sherraden. 1999. Institutional determinants of saving: implications for low-income households and public policy. *The Journal of Socio-Economics* **28**:4, 457-473. [[Crossref](#)]
400. JEFFREY R. COHEN, GREGORY M. TROMPETER. 1998. An Examination of Factors Affecting Audit Practice Development. *Contemporary Accounting Research* **15**:4, 481-504. [[Crossref](#)]
401. Laurence Levin. 1998. Are assets fungible?. *Journal of Economic Behavior & Organization* **36**:1, 59-83. [[Crossref](#)]
402. David Laibson. 1998. Life-cycle consumption and hyperbolic discount functions. *European Economic Review* **42**:3-5, 861-871. [[Crossref](#)]
403. Daniel McFadden. Measuring Willingness-to-Pay for Transportation Improvements 339-364. [[Crossref](#)]

404. Robert M. Wiseman, Luis R. Gomez-Mejia. 1998. A Behavioral Agency Model of Managerial Risk Taking. *Academy of Management Review* 23:1, 133-153. [[Crossref](#)]
405. Robert M. Wiseman, Catanach Catanach. 1997. A Longitudinal Disaggregation of Operational Risk Under Changing Regulations: Evidence From the Savings and Loan Industry. *Academy of Management Journal* 40:4, 799-830. [[Crossref](#)]
406. Gillian Parker. 1997. Can't Pay, won't Pay? Finance for Long-Term Care. *Journal of Health Services Research & Policy* 2:3, 133-134. [[Crossref](#)]
407. Luis Gomez-Mejia, Robert M. Wiseman. 1997. Reframing Executive Compensation: An Assessment and Outlook. *Journal of Management* 23:3, 291-374. [[Crossref](#)]
408. D. Laibson. 1997. Golden Eggs and Hyperbolic Discounting. *The Quarterly Journal of Economics* 112:2, 443-478. [[Crossref](#)]
409. Stephen E.G. Lea, Paul Webley. 1997. Pride in economic psychology. *Journal of Economic Psychology* 18:2-3, 323-340. [[Crossref](#)]
410. Yannis Bakos, Erik Brynjolfsson. 1997. Bundling Information Goods: Pricing, Profits and Efficiency. *SSRN Electronic Journal* . [[Crossref](#)]
411. Susan Miller. 1997. The Market to the Rescue? The Promise - And the Price - Of the New Social Security Investment Proposals. *SSRN Electronic Journal* . [[Crossref](#)]
412. Harold Alderman. 1996. Saving and economic shocks in rural Pakistan. *Journal of Development Economics* 51:2, 343-365. [[Crossref](#)]
413. Gary V. Engelhardt. 1996. House prices and home owner saving behavior. *Regional Science and Urban Economics* 26:3-4, 313-336. [[Crossref](#)]
414. Peter Lunt. 1996. Rethinking the relationship between economics and psychology. *Journal of Economic Psychology* 17:2, 275-287. [[Crossref](#)]
415. James R. Hines, Jr., Richard H. Thaler. 1995. Anomalies: The Flypaper Effect. *Journal of Economic Perspectives* 9:4, 217-226. [[Abstract](#)] [[View PDF article](#)] [[PDF with links](#)]
416. Adrian Winnett, Alan Lewis. 1995. Household accounts, mental accounts, and savings behaviour: Some old economics rediscovered?. *Journal of Economic Psychology* 16:3, 431-448. [[Crossref](#)]
417. DAVID W. R. GRUEN, GORDON D. MENZIES. 1995. Forward Discount Bias: Is it Near-Rationality in the Foreign Exchange Market?. *Economic Record* 71:2, 157-166. [[Crossref](#)]
418. William A. Fischel. 1995. The offer/ask disparity and just compensation for takings: A constitutional choice perspective. *International Review of Law and Economics* 15:2, 187-203. [[Crossref](#)]
419. Sharone L. Maital, Shlomo Maital. The Rise and Fall of the Future: Why Did National Saving Decline? 186-209. [[Crossref](#)]
420. John Quiggin, John Horowitz. 1995. Time and risk. *Journal of Risk and Uncertainty* 10:1, 37-55. [[Crossref](#)]
421. Arun K. Mukhopadhyay. 1994. Are Haligonians Ricardian? A survey of households' saving response to the government's budget deficits. *The Journal of Socio-Economics* 23:4, 457-477. [[Crossref](#)]
422. David I. Levine, Richard J. Parkin. 1994. Work organization, employment security, and macroeconomic stability. *Journal of Economic Behavior & Organization* 24:3, 251-271. [[Crossref](#)]
423. Karl-Erik Wärneryd. Psychology + Economics = Economic Psychology? 31-52. [[Crossref](#)]
424. Shlomo Maital, Sharone L. Maital. 1994. Is the future what it used to be? A behavioral theory of the decline of saving in the west. *The Journal of Socio-Economics* 23:1-2, 1-32. [[Crossref](#)]
425. Jing-jian Xiao, Geraldine I. Olson. 1993. Mental Accounting and Saving Behavior. *Home Economics Research Journal* 22:1, 92-109. [[Crossref](#)]

426. CHARLES BRAM CADSBY, MURRAY FRANK. 1991. EXPERIMENTAL TESTS OF RICARDIAN EQUIVALENCE. *Economic Inquiry* **29**:4, 645-664. [[Crossref](#)]
427. John Y. Campbell, N.Gregory Mankiw. 1991. The response of consumption to income. *European Economic Review* **35**:4, 723-756. [[Crossref](#)]
428. Steven F. Venti, David A. Wise. 1991. Aging and the income value of housing wealth. *Journal of Public Economics* **44**:3, 371-397. [[Crossref](#)]
429. Maria Debora Braga. Access to Investments and Asset Building for Low Income People 141-181. [[Crossref](#)]
430. John McHale. 6. Fiscal policy and the public finances: Creative approaches to pension funding 107-141. [[Crossref](#)]
431. Gerrit Antonides. Comparing models of consumer behaviour 227-252. [[Crossref](#)]