TRUTH IN SAVINGS - ITS LEGISLATIVE HISTORY AND STATUS

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ABSTRACT

This paper traces the origins of Truth in Savings concepts, documents the legislative history of congressional and state bills and the role of regulatory agencies. Interlaced with the legislative developments is the recurrent controversy over what components are required for truthful disclosure.

INTRODUCTION

The roots for Truth in Savings can be traced to President Kennedy's Consumer Advisory Council. In 1963, it established as requisites for truthful disclosure of open-end credit the concepts of "periodic percentage rate" which is the simple rate paid each period, and its annualized counterpart the "nominal annual percentage rate."[1] It was in the course of the 1967 controversial congressional hearings over whether the annual percentage rate need be a required disclosure for open-end credit that the similarity of open-end credit to open-end savings accounts surfaced. The arithmetic is identical with merely the roles of banker and consumer reversed; the bankers acknowledged the consumers' need of the annual rate for savings, but not for open-end credit. The seeds for Truth in Savings were sowed in these debates. The interrelation of these two concepts is discussed in four previous papers: "A Decade of Truth in Lending"[5], "Model State Act: Consumers Savings Disclosure Act"[6], "Truth in Savings" [2] and "Universal Standard for Interest Rate Disclosures" [9].

Truth in Savings often conjures up defensive reactions from savings executives who deny they engage in false, deceptive or misleading practices requiring reform legislation. Many accept creative marketing and confusing obfuscations as legal, profitable and acceptable aspects of free enterprise. Their concerns about improving communications in the savings market are limited to how to increase consumer acceptance and understanding of the products and services they offer, falling far short of the broader intent of Truth in Savings. Because the value-laden expression "truth in ..." is subject to so many interpretations, it is essential that the criteria of Truth in Savings be established.

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Standards for Evaluating Truth in Savings

The basic standards used in this paper to evaluate Truth in Savings fall into four catagories:

A. **That the facts be disclosed in standardized terms that are -**

- Complete - in that they "tell the whole truth and nothing but the truth."
- Reliable - are consistent from time to time, place to place, and application to application.
- Precise - are well defined, conform to established standards and are operational with minimum tolerance for error.
- Valid - are true to nature, that is, reflect faithfully the mathematics of growth and conform to what is generally referred to as the "time value of money."

B. **That the factual disclosures meet the following criteria for effective communication:**

- Understandable - the terms are readable and can be being understood.
- Economical - the terms are comprehendable with a minimum of educational effort expended, resulting in effective, low-cost transmission of factual information.
- Verifiable - the facts not only are repeatable, but sufficiently understandable that they can be applied to actual situations efficiently.
- Comparable - the language developed is universally applicable to other life situaons and is not unique to savings. For example, the concepts should be compatible with those needed to communicate facts about consumer credit, investments, economic series, population and other forms of growth.

C. **That the information be disclosed in a timely manner, conforming to the decision-making routines of consumer-users -**

- Before the contract is made, so consumers will have comparable information for efficient surveying the market.
- When the contract is agreed upon, so both parties know the terms and have a copy of the contract.

. During the life of the contract, so both parties have access to all the facts needed (1) to make interim decisions as market equations shift, and (2) to validate whether actions taken conform to contract terms. Furthermore, (3) adequate notice of any changes in contract terms should be given, so both parties are protected from unilateral changes. Finally, (4) there should be earnings report statements at least once a year, and (5) they should routinely reprint those contract terms needed for verification procedures; all reports should be "self-proving."

D. **That information systems be well disciplined**

. with adequate penalties from infractions.

. with incentives for savers to help financial insitutions eliminate errors.

. with enforcement by government agencies specialized in protecting the market from false. deceptive and misleading practices.

All of these elements are required for a fully functional Truth in Savings program. They establish the direction toward which reform proposals should be advanced and by which they should be evaluated. To the extent that any element is missing, the consumers' interests will not be adequatly met.

These criteria have evolved from years of debates first over Truth in Lending and then over Truth in Savings, the history of which follows.

CONGRESSIONAL ACTION

Truth in Savings bills have been introduced in Congress since 1971, but neither the House nor Senate passed any bill until the 99th Congress. On October 7, 1986 the House passed H.R.5613, The Truth in Savings Act, but the Senate did not have time before adjournment to consider it. Nevertheless, this was the greatest advance to date. The legislative developments beginning with the 92nd Congress are reviewed.

The 92nd Congress

Truth in Savings was first introduced jointly in the Congress of the United States by Indiana Senator Vance Hartke as S.1848 and Kansas Representive Dr. Bill Roy as H.R. 8365. Their introduction of identical bills May 12, 1971 was no mere coincidence.

Mr. Howard Marlow, legislative aide to Senator Hartke, had read the article "Maybe We Need Truth in Savings" in the February, 1971 issue of Changing Times. He thought this might be of interest to Senator Hartke, so he called the Department of Family Economics at Kansas State University for further information because the article had featured the research of Ms. Jackie Pinson, a graduate student of Professor Morse. No legislation had been formulated, but he expressed willingness to assist in drafting a bill using the experience he had gained in drafting Truth in Lending legislation.

Dr. Bill Roy had just won election from the Congressional District in which Kansas State University is located. A key point in his successful campaign for election was criticism of the incumbent for his opposition to the recently enacted Truth in Lending Act. So it was expected that Dr. Roy would view Truth in Savings favorably. As Senator Hartke's office developed legislation, Dr. Roy was kept informed. They selected the same day to introduce the same legislation in the House and Senate.

Rationale for full disclosure. This and subsequent Hartke-Roy legislation track the open-end credit provisions of Truth in Lending. Savings and credit involve the same type of financial transaction, but with a role reversal: the role of the savings customers is to lend to the bank; the bank's role is to lend to the credit customer. Money flows between the lender to borrower whether it be for credit or savings. Also, just as in an open-credit situation, neither party knows when payments and credits will be made, so the disclosed terms are limited to the "working" rate, that is, the "periodic percentage rate" which is applied at the end of each period to the principal balance, with the method of computing that balance to be determined by the creditor and disclosed. Also disclosed with this "Periodic Percentage Rate" ("PPR") is the "Annual Percentage Rate" ("APR") which is the periodic rate multiplied by the number of periods in a year. The APR is a nominal (in name only) rate, and is a working rate only if interest is compounded annually.

These two terms met the disclosure requirements for consumer credit, but not fully for savings. The major financial difference between savings and credit is in the way interest is usually paid out. Typically, interest is paid as earned on credit, so the simple interest disclosures of PPR and APR are sufficient. In savings situations, interest usually accrues and is not paid out as earned. The periodic rate is applied to a sum which includes not only the beginning principal, but also the interest accrued to date. The growth in interest resulting from this compounding phenomenon requires another term called "yield", "Effective Annual Yield" or, as in Truth in Savings, "Annual Percentage Yield" (APY). APY expresses as a percentage the 365-day year's projected hypothetical growth of $100 from successive applications of the periodic rate to the combined principal and accrued interest.

Thus, Truth in Savings bills required disclosure of all three rates: the periodic percentage rate, the annual percentage rate, and the annual percentage yield.

They also required disclosure of the frequency of compounding, the method used to determine the balance to which the PPR is applied, the dates on which earnings are payable, any time limitations and charges, restrictions, terms or conditions affecting earnings and the disclosed PPR and APY. Such full disclosures were to be made in writing prior to opening a savings account, when the account was opened, and subsequently at least annually with earnings reports. Advertising disclosures were limited to the APR and APY in equal prominence together with any time or amount limitations. The term "profit" and rates based on periods in excess of one year or reflecting the effect of grace days were prohibited.

The bills were referred to their respective committees, but no hearings were held in the 92nd Congress, and the bills died.

The 93rd Congress

Senator Vance Hartke and Represenitive Dr. Bill Roy re-introduced Truth in Savings on February 28, 1973 as S. 1052 and H.R. 4985, respectively, with additional co-sponsors including Representative Leonor Sullivan who was very familiar with open credit. She had championed strengthening the open-end credit provisions of Truth in Lending in the final debate prior to House passage. The bills were referred to committees.

Hearings on S.1052 were held June 6-7, 1973 [15] and were significant in three respects: First, they provided a wealth of materials on savings which had heretofor been unavailable. Journals and special interest publications were essentially closed to consumer-oriented materials. For example, it documented the 56 exchanges beginning in 1966 that culminated with the 1969 amendments to Regulation Q governing advertising of savings. The full theses of Jackie M. Pinson and Russell W. Price were reprinted, as was correspondence regarding banking errors revealing the incredible ineptness of the FDIC and need for standard rate tables.[3]

The hearings served to expose for public scrutiny the positions of various government agencies and public interest groups. Positions of the various special interest groups were not surprising. But significant were the wide and irreconcilable differences over what constitutes full disclosure in the consumers' interest:

. The Federal Reserve Board favored the APR and PPR, but not the APY. The FRB even questioned the fairness of requiring the APY.

. The Federal Home Loan Bank Board favored the APR and APY, but not the PPR. In their opinion, the public would be better served by requiring the APY.

. Senator Proxmire and Allan Morrison of Public Citizen opposed requiring three rates, saying they would be confusing and counter productive.

. The National Credit Union Administration expressed no opinion about the rate requirments and requested exemption, while the bankers and thrifts considered legislation unnecessary since any problems that might exist could be handled by regulation.

Treasury and White House Support

On another front, the Nixon administration gave tangible support to Truth in Savings. It was promoting what is now known as deregulation. They embraced the logic that standards for truthful information was requisite for a deregulated market to function fairly.

William Simon, Deputy Secretary of the Treasury, and Virginia Knauer, Special Assistant to President Nixon for Consumer Affairs, called a meeting of consumer representatives to respond to legislation proposed to reorganize the structure and regulation of financial institutions, the "Financial Institution Act of 1973" S.2591. At the conference, Morse made a strong plea for Truth in Savings which would give the consumer needed information about their savings accounts regardless of how the financial institutions were restructured [12, p.20]. This proposal met with immediate endorsement by Secretary Simon and Virginia Knauer. Within a week a new Truth in Savings section was amended into S.2591 as Section 106. Mrs. Knauer's October 23, 1973 press release captures her enthusiasm for Truth in Savings: "...Too often the consumer receives savings rhetoric rather than savings information....The American people have a right to compare savings plans, and to know exactly what their savings will bring. We need clarification, not confusion at the teller's window."

One significant contribution of this initiative was that Truth in Savings became an issue which required study and thought by staffs of the Department of the Treasury, of the Senate Committee on Banking, Housing and Urban Affairs, and of Virginia Knauer's office. The result of their efforts was positive, yet the disclosure provisions of Section 106 fell short of S.1052. A comparative analysis of these bills is reprinted in The 1974 Hearings, [16, p.572-4]. The differences reflect fundamental disagreements as to what constitutes full and truthful disclosure.

Sec. 106 of S.2591 failed to require disclosure of the Periodic Percentage Rate and the Annual Percentage Yield . Other differences are outlined on pages 572-573 of the 1974 hearings. The objection to required disclosure of the Annual Percentage Yield is underscored in the letter of November 5, 1973, to Senator Hartke by the Secretary of the Treasury, George P. Shultz: "... We consider that requiring disclosure of the annual percentage yield could lead to misunderstanding to the saving public.... Disclosure of the periodic percentage rate could also lead to increased confusion .... We believe it is important to keep in step with Truth in Lending. The public is beginning to become familiar with the phrase 'Annual Percentage Rate'. It has been well accepted. To our knowledge, there have been no complaints about incomparability. We believe it could be unfortunate to complicate the situation with the introduction of a different type of annual rate, especially when its validity is so questionable."[p.464] The depth of conviction over the opposing positions is evidenced in the series of intense letters between the Secretary and Senator Hartke some of which are reprinted in the 1974 Hearings.

In summary, by the end of the 93rd Congress there remained a fundamental conflict as to what constituted full, meaningful and needed disclosures; Senator Proxmire rejected the need for three rates and pressed for a uniform method of disclosure, requesting a feasibility study by the Federal Reserve System.

The Federal Reserve Board found no need for a uniform method to compute interest rates, yet favored the development of "adequate" disclosure.

Treasury Secretary George Schultz rejected mandating the Annual Percentage Yield as having the potential for misleading the saver, and considered the Periodic Percentage Rate as having the potential for increasing consumer confusion. He favored the Annual Percentage Rate. The Federal Reserve Board also rejected the yield, but recognized the merit of the periodic percentage rate along with the annual percentage rate. The Federal Home Loan Bank Board favored the yield. And the credit unions wanted exemption. In summary, there was not agreement as to what should be disclosed.

94th Congress

Representive Leonor K. Sullivan, with Dr. Bill Roy as co-sponsor, introduced H.R. 14, the Consumer Disclosure Act, on the first day of the 94th Congress (January 14, 1975). It contained essentially the same provisions as earlier bills, but with a few "perfecting" changes.

Representive Sullivan chaired the Consumer Subcommittee of the House Banking and Currency Committee. Senator Hartke was not re-elected, so there was no bill in the Senate.

Representive Frank Annunzio replaced Mrs. Sullivan as Subcommittee Chair, and introduced his own ominbus banking bill H.R.6128 on April 17, 1975. The Truth in Savings provisions of this bill used traditionally imprecise language. No hearings were held.

The Financial Institutions Act of 1975 was reintroduced as S.1267. Its Section 107 contained essentially the same Truth in Savings provisions as the previous bill and did not require disclosure of the Periodic Percentage Rate or Annual Percentage Yield. The Senate Banking Committee struck Truth in Savings by deleting Section 107 from the bill. No other action was taken on Truth in Savings in the 94th Congress, nor until the 98th Congress.

96th Congress

Representative Benjamin S. Rosenthal, Chairman of the Commerce, Consumer and Monetary Affairs Subcommittee of the Committee on Government Operations held oversight hearings of the "Federal Supervision of Bank Advertising and Promotion Practices" September 11-12, 1979. The subcommittee, aware of the increasingly aggressive use of commercial advertising questioned "whether such practices too often mislead or confuse consumers." The 1092-pages provide a valuable source of documents, especially noteworthy are New York's Truth in Savings regulations, The Model State Act, reports and responses of the regulatory agencies and reprints of theses, studies and correspondences, submitted by the author.[13] Also significant is the letter from Federal Reserve Board Chairman Arthur F. Burns refuting the author's suggestion made on page 12 of the Morse Daily Rate Tables "to make 365 days synonymous with the word 'annual'." Burns wrote: "We believe ... requiring banks to compute interest on the basis of 365 days would eliminate an element of market competition that may be advantageous to consumers."(p. 1054)

98th Congress

Representive Richard Lehman (CA) introduced on March 1984, with 90 co-sponsors, The Truth in Savings Act. Hearings before the subcommittee on Financial Institutions of the Committee of Banking, Finance and Urban Affairs were held on August 8, 1984.[14]

Representative Lehman and undoubtly a large number of co-sponsors were responding to the concerns of their constituents who were confused by advertised savings rates and from marketing inovations that were difficult to comprehend and explain. Furthermore, the outrage over service charges, fees, check hold policies, minimum balances and interest calculation methods seemed to require reform legislation.

The Hearings elicited support for legislation and positive suggestions such as to define the word "annual." In his testimony before the committee, Morse recommended following the leadership of New York and to incorporate as Federal legislation the Truth in Savings regulations of the New York State Department of Banking. He proposed a further refinement to reduce to a single standard of daily interest payable on daily balances, which he called "Cents-ible Interest." He distributed copies of his recently published pamphlet of that title.[10]

99th Congress

Representative Lehman reintroduced a revised bill H.R. 2282 and was joined by over 100 co-sponsors. Hearings (as yet unpublished) held in June, 1986 resulted in a revised bill, H.R. 5613, which was introduced September 29, 1986 and passed by the House October 7, 1986. The Congress adjourned before the Senate could act on this bill.

100th Congress

Representative Lehman on January 7, 1987 reintroduced the previous bill. As of this writing, no hearings have been held, and there are no indications of Senate action. It should be noted that the Lehman bill fails seriously in meeting the criteria for an adequate Truth in Savings measure. Basic standards are not established; even "annual" is not defined. A new and undefined term, "Annual Rate of Simple Interest" (ARSI) is introduced burdening consumers with reconciling it with the familiar APR. The PPR rate actually paid is not mentioned.

Responsibility for defining the Annual Percentage Yield and the method by which it is to be calculated is relegated to the Federal Reserve Board which since at least 1971 has failed to recognize its obligation to fill this void. The bill does recognize problems arising out of creative schemes, bonuses, fees, tiered rates, yet fails to be specific as to how they should be treated under the act. At best, its passage will be a nominal political victory; at worst it will retard development of corrective action needed by consumers and the finance industry.

STATE LEGISLATION

Historically, consumer credit was regulated by the states while savings was regulated by the federal government. Truth in Lending broke this pattern by empowering the Federal Reserve Board with authority to promulgate regulations, Regulation Z, over consumer credit practices. The Board had exercised such power through Regulation Q over savings deposits in coordination with the other regulatory bodies, so there was no thought given to state legislation until the Maryland experience. The only thought had been to seek improvement at the Federal level either through strengthening regulations or by congressional legislation. A history of state action through 1979 is in an earlier paper which this paper supplements through early 1987.[6]

MARYLAND

The possibility of state Truth in Savings legislation developed as a result of the work of an investigative reporter, Mark Reutter of the Baltimore Sun. Other journalists had worked with Morse in surveying local savings institutions (Larry Werner for the Louisville Courier-Jorunal, and Craig Stock for the Wichita Eagle Beacon.)[13, pp.9312] But Reutter had developed an account activity pattern that showed the largest bank in Baltimore to pay zero interest on his model account. In writing the article, "The rules banks don't like to talk about" (November 9, 1975) he interviewed Senator Proxmire, the Comptroller of the Currency and other bank officials, and concluded that Maryland consumers need not wait for Congress to enact Truth in Savings. Maryland could enact its own law and the Sun published a stiring editorial on November 23. Inquiries from state legislators were referred to Morse who then realized the need for a Model State Truth in Savings Act.[7]

Maryland passed HB 807 which quieted the clamor for legislation, but provided a very limited Truth in Savings. It became effective 1977. (The 1986 session enacted a bank-supported Truth in Savings bill similar to the imprecise Lehman bill).

NEW YORK

The stimulant for the 1978 New York Act was the outrage of an administrative engineer who, in trying out his new Christmas gift calculator, discovered an error in the interest due him on his savings account. He was shocked to discover a yield of only 5.39% and not the advertised 5.47% on a 5.25% account. The bank had shifted from a 360 to a 365 day base without notifying its depositors. His union paper headlined this as a $442,000 rip-off of depositors. The result was immediate. Public officials and legislators were anxious to redress a wrong. Copies of Morse's Model State Act were supplied to legislators. But its specifity was rejected in favor of traditional terminology. Fortunately, the inadequatly worded act also charged the New York State Banking Department was charged with writing regulations to implement the act. The regulations are excellent and represent a significant breakthrough for Truth in Savings.

At that time, the State College at Buffalo, NY invited Morse to give a lecture on savings systems. He accepted on two conditions. One, that the students conduct a survey of local savings institutions, using the 13 questions in <u>Check Your Interest</u> [4] and (2) that a representative of the New York Banking Department also be invited to participate. The evening was successful. The students' testimony of their inability to get straight information from the bankers laid to rest the myth that information needed by consumers is available if they would only ask. The lecture session provided opportunity to establish the mathematical basis for interest calculations and the rationale for the three rates. The bank department's legal counsel seemed to understand, but was non-committal as to any regulations.

Soon thereafter the proposed regulations were circulated for public comment. This provided an opportunity to recommend drastic revisions, substituting the essential ingredients from the Model Act. They were accepted and incorporated in a revised set of regulations. They were ultimately approved with three changes: (1) the tight definition of APR needed to be removed because banks, such a Mr. Cheswick's, would have been required to quote an APR of 5.32% to yield 5.47% on a 365-day basis, yet federal regulations prohibited such banks from paying a rate higher than 5.25%. So New York substituted AIR (Annual Interest Rate), and bypassed the specific definition of APR. (2) Another change was to limit the advertising provisions for the electronic media. (3) A third change was to delete the requirement that depositors be contacted at least once a year. New York's Truth in Savings Act provides a landmark in providing depositors with savings contracts that are meaningful and useful in that they provide all three rates. There has been no weakening of these regulations.

<u>Normative Disclosure</u>. A significant departure from "full disclosure" is built into the Model Act and the New York regulations. The number of disclosures, other than the required PPR and APR,

is reduced to only those which disadvantage the consumer. For example, frequency of compounding and method of computing balances need not be disclosed if other than daily.

MASSACHUSETTS

The Commonwealth of Massachusetts on January 8, 1985, incorporated Truth in Savings along with an amendment concerning finance charges for open-end credit. The Act assigned to the Commissioner of Banks responsibility to promulgate regulations. These were issued in February, approved in March and became effective July 1, 1985. The Commissioner chose not to stray from the language of the Act, as had the New York State Banking Department. As a result such terms as "annual rate of simple interest" and "effective yield" are used. Nevertheless, the suggested forms for disclosures statements are explicit. For example, they suggest 365 days as a full year. And under the section for disclosing the formula for calculating daily interest is the illustration: "For example, you will earn ____cents per $100 on deposit each day." This conforms to what Morse calls Cents-ible Interest®.

KANSAS

Since 1979 each session of the legislature has had a Truth in Savings bill. Until 1984, the bills conformed to the Model Act.

Cents per $100 per Day. In 1984 Senate Bill No. 549 was introduced. It departed from the Model Act's normative disclosure by accenting disclosure of the daily rate expressed in cents per $100 per Day for interest compounded daily on daily balances; otherwise, with the word "equivalent" appended. It also defined and required disclosure of the annualized terms, APR and APY. This bill was narrowly defeated in the Senate. It was reintroduced as SB 244 and HB 2380 in the 1985 session and committee hearings were held but no action was taken.

This was the first introduction into legislative format the concept of Cents per $100 per Day. This concept was first called "International Standard for Interest Rate Disclosure", when presented in 1982 at the International Organization of Consumers Unions Congress at The Hague.[8] It was presented at the 29th ACCI annual conference in 1983 with the name changed to "Universal Standard for Interest Rate Disclosure" (USIRD).[9] A significant inclusion of that paper are the evaluations of the heads of federal regulatory agencies, such as the FRB, SEC, FDIC and CoC, whose opinions had been solicited by Virginia Knauer of the White House. A third title given this concept is Cents-ible Interest® which is thought to capture the ideas expressed.[10] The name is registered to exercise quality control over its use. For example, some have miscontrued it to be the average of the quarterly or annual yield.

Centsible Interest®. The 1987 session of the Kansas legislature has under consideration H.B. 2331, "The Consumer Savings and Disclosure Act." It requires disclosure of only the daily rate if interest is compounded daily on daily balances, or its equivalent if other methods are used. Those methods, then, must be disclosed. The bill is essentially the same as HB 2380, but to simplify appearances, reference to annual terms is deleted. It is the expectation that the regulatory authorities subsequently will recognize the need for an APR and APY expression, and will define the APR to be 3.65 the daily percentage rate, and the APY to be the percentage expression of a 365-day yield. Enforcement is placed under the state's attorney general who administers a strong "Consumer Protection Act." It also provides for rewarding savers who discover and call errors to the attention of the financial institution.

SUMMARY

Truth in Savings has had active support from Republicans and Democrats, from so called liberals and conservatives.

In the 15 years that Truth in Savings has been before the Congress there appear three obstacles to adoption of truthful Truth in Savings at the Federal level:

1. Adherence to the traditional annual rate which is either nominal or hypothetical and not the rate paid.

2. Failure to specify the word "annual" thereby preserving ambiguity and rendering an annual rate quotation potentially deceptive and misleading.

3. Refusal to require disclosure of all of the terms essential for calculating interest, particularly the rate of interest used each compound period, namely, the periodic percentage rate.

4. Accept what is politically acceptable to special interest groups which do not accept the consumer criteria.

The bill (H.R. 5613) which passed by the House October 7, 1986, (Congressional Record, H.9305-9313) bears evidence of these obstacles. (1) It requires disclosure of "any annual percentage yield." No method for its calculation is stipulated; and responsibility is delegated to the Board of Governors of the Federal Reserve System. (2) It requires disclosure of "any annual rate of simple interest" which is not defined. Use of this terminology rather than the well defined Annual Percentage Rate suggests a difference which can be troubling to consumers. (3) The provision of an earlier bill that the year be 365 days is absent, so the word "annual" remains without definition. And, (4) there is absolutely no reference to the periodic percentage rate.

The feasibility of requiring full and meaningful rate disclosures has been successfully tested in New York. For the last six years the State of New York has required disclosure of all three rates, including the periodic percentage rate, and meaningful use of the word "annual." In the opinion of the New York State Banking Department which issued the regulations in 1979, the experience has been favorable, consumers have not expressed anxiety or confusion, and the financial institutions have complied with little or no objection.

Finally, a positive alternative approach toward resolving the problems inherent in disclosing three rates and defining the word "annual" is proposed by using the daily rate (since the day is universally acknowledged to be 24 hours) expressed in cents per $100 so as to avoid percentages and long decimals. This departure from traditional annual rates has brought speculation from critics ranging from predicting that consumers would be confused, to praise from Federal Reserve Board Chairman, Paul Volker, and Todd Conover, Comptroller of the Currency. Furthermore, research based on over 3000 tests with consumers has proven beyond doubt its functional usefullness for consumers. This unique approach is captured under the registered name of Cents-ible Interest®.

The future of truthful Truth in Savings will require surmounting the vestiges of traditional interest rate terminology conceived in the pre-computer days when daily compounding on daily balances was but a theoretical possibility. It also rests on the willingness to address positively the criteria set forth at the beginning of this paper. For example, to tighten up on the systems for calculating interest will require a major reorientation of regulators accustomed to drafting regulations that accomodate needless complexity and legalize imprecission. What might appear to be a simple beginning would be to make "annual" synonymous with 365 days, thereby accepting a recommendation that has been stubbornly rejected for more than a decade.

For a full discussion of the details of rate disclosure and the information gap, reference is made to a paper presented December 11, 1986 at the Consumer Federation of America sponsored conference "The Consumer in the Financial Revolution."[11]

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THE TAX REFORM ACT OF 1986:
IMPLICATIONS FOR CONSUMER PROFESSIONALS

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ABSTRACT

With lower rates and a broader tax base, the Tax Reform Act of 1986 was designed to be simpler and fairer. Passage signals a fundamental change in fiscal policy. The impact on the economy will be difficult to quantify due to off-setting factors. The new tax code provides challenges and opportunities for educators, researchers and public policy makers.

The Tax Reform Act of 1986 (the Act) has brought about the most comprehensive changes in the American tax system in 30 years. "By fundamentally changing the rules by which Americans spend, save, borrow and invest, it will affect the course of the entire economy" [12, p. 46]. In theory, spending, saving and investing decisions will be ruled more by financial goals than by tax avoidance strategies [11, 14]. Combining lower rates for both individuals and corporations with a broader tax base, while eliminating or restricting many popular tax deductions and shelters, tax reform passed Congress by a wide margin. The first changes become effective in 1987; some provisions such as the higher standard deduction and personal exemption along with the elimination of the consumer interest deduction will be phased in over the next five years.

The initial objective for the overhaul of the tax code was to make the income tax system simpler and fairer. Whether these goals were achieved is open to debate. As with beauty, the fairness of tax reform is in the eye of the beholder. The following discussion will illustrate the complexity of the new law and potential impacts of some of the changes.

Notable among the changes is the reduction in the top marginal tax rate from 50% to 38.5% in 1987 and 33% by 1988; as recently as 1981 the maximum individual tax rate was 70%. Other significant changes are a reduction in the number of brackets from the current 15 to five in 1987 and three in 1988 along with the elimination of many long standing and popular deductions [1]. While previous Reagan Administration tax laws provided tax relief, this Act was designed with reform in mind. The changes were designed to reduce the incentive for tax avoidance strategies and to minimize the role of tax considerations in financial decisions.

At least in theory, the tax bill is supposed to be "revenue neutral" with lower rates offset by a broader tax base due to fewer deductions and shelters along with an increase in business taxes [1]. Analysts predict an average tax cut of 1.6% in 1987 and 6.1% in 1988 but the amount will vary considerably with individual circumstances [2]. About half of taxpayers earning $50,000 or more will pay higher taxes [7]. In order to recoup a portion of the revenues lost through lower tax rates, the Act transfers some of the tax burden from individuals to corporations. Businesses are scheduled to face a $120 billion increase over the next 6 years to pay for the cuts in individual taxes.

The purpose of this paper is to review the major changes in the tax code as they affect consumers. It will examine the public policy implications of these changes and recommend opportunities for educators, financial advisors and researchers.

RECENT CHANGES IN THE TAX CODE

Although the Act was welcomed as historic, far reaching, and unprecedented, both recent changes in the tax code and the history of the federal income tax indicate it will likely be just another complicated chapter in a long line of change. A review of the 73 year history of federal income taxes reveals that Congress has imposed major tax change on the American public on the average of every 18 months since its inception in 1917 [17]. Previous Reagan administration tax bills included the Economic Recovery Tax Act of 1981, followed by the Tax Equity and Fiscal Responsibility Act of 1982, and the Tax Reform Act of 1984. Each of these changes was heralded as a major improvement in the tax code. Thus, we can expect that the Tax Reform Act of 1986 will not remain untouched. Granted, the 1986 law went a step further than most recent tax law changes; the 1986 Act replaces the 1954 Internal Revenue Code.

MAJOR PROVISIONS OF THE TAX REFORM ACT OF 1986

The most significant changes affecting individual taxpayers are the lower brackets, broader taxable income and higher personal exemptions and standard deduction.

TABLE. TAX RATE TABLES

1987			
Married couple filing jointly		Single Taxpayers	
Taxable income	Rate	Taxable Income	Rate
$ 0-$ 3,000	0%	$ 0-$ 1,800	11%
$ 3,001-$28,000	11%	$ 1,801-$16,800	15%
$28,001-$45,000	28%	$16,801-$27,000	28%
$45,001-$90,000	35%	$27,001-$54,000	35%
above $90,000	38.5%	above $54,000	38.5%

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1988			
$ 0-$29,750	15%	$ 0-$17,850	15%
$ 29,751-$71,900	28%	$17,851-$43,150	28%
$71,901-$170,000	33%	$43,151-	33%
above $170,000	28%	$	28%

Due to the substantial jump in marginal tax rates between the brackets (i.e., from 15% to 28%), taxpayers near the top end of a bracket need to plan more carefully than in past years when an increase in taxable income meant a 2-3% increase in the marginal rate. The personal exemption will be increased to $2000 by 1989 while the standard deduction will be $3000 for a single taxpayer and $5000 for a joint return. For 1987 and beyond, the elderly and blind lose the extra personal exemption but qualify for a larger standard deduction.

In combination, the increase in the personal exemption and standard deduction effectively dropped about six million low income Americans from the tax rolls. As a result, the Act has been lauded as "the most important anti-poverty legislation in more than a decade" [17, p. 1]. A four member family can earn up to $11,360 in 1987 and $12,800 in 1988 before incurring a federal tax liability, compared to $7990 in 1986. The poverty level for a four member family is $12,368.

For many taxpayers, adjusted gross income (AGI) will increase due to fewer adjustments and exclusions and the treatment of capital gains as ordinary income. For some, this will be offset by lower rates and higher personal exemptions and standard deduction. The increase in the standard deduction will make itemizing less attractive. While 40% of taxpayers currently itemize, an estimated one-third of them will no longer do so under the new rules. The most significant changes for itemizers affect consumer credit and IRAs. In addition, itemizers will be affected by the elimination of the sales tax deduction, the increase in the medical deduction ceiling and the limit on miscellaneous deductions. Employee business expenses will be shifted from an adjustment to income to an itemized deduction in the same category as miscellaneous deductions. In addition, only 80% of business meals and entertainment expenses will be deductible. Deductions in this combined category will be deductible only to the extent that the total exceeds 2% of adjusted gross income (AGI). Fewer taxpayers will benefit from charitable contribution deductions since itemizing will be required once more. At the same time, the reduction in tax rates diminishes the value of deductions and thus increases the real cost of contributions.

The consumer interest deduction will be phased out so that the following percentages of interest will be deductible: 65% in 1987, 40% in 1988, 20% in 1989, 10% in 1990; the deduction will be eliminated in 1991. However, a major loophole in the elimination of deductions for consumer interest is allowing deductions for interest on home equity loans.

Decisions about Individual Retirement Accounts (IRAs) will be more complex due to the new rules on determining eligibility for deductions. Workers who are eligible to participate in a company pension or profit sharing plan may lose part or all of the deduction for an IRA contribution depending on their adjusted gross income. Singles with adjusted gross incomes (before subtracting IRA contributions) of $25,000-$35,000 and couples filing jointly with AGIs of $40,000-$50,000 who are eligible to participate in a company retirement plan will forfeit $1 of their deduction for each $5 of taxable income that falls in this range [16]. Couples who file jointly will be subject to these limits even if only one is covered by an employer plan. According to the Investment Company Institute, about 5.4 million (19%) of the 28 million households that have IRAs will lose the deduction entirely [26].

The so-called "kiddie tax" is imposed on unearned income of children under age 14 to discourage income shifting by high bracket parents to young children. For children under 14, all unearned income in excess of $1000 will be taxed at the marginal rate of the parents [5]. Further, only one personal exemption is allowed per child; either parents or child may claim the exemption, not both as in the past. In order to limit deductions for passive losses (tax shelters), income will be classified in one of three categories depending on its source: active income from wage earning activities, portfolio income from interest and dividends, and passive income from investments in which the investor does not materially participate [5].

Students will feel the impact of the phase out of the interest deduction on educational loans and the taxation of certain scholarships. While awards for tuition, fees and books will remain tax exempt, taxation of grants that cover living expenses will be subject to tax. However, many students will escape taxation due to the increased personal exemption and standard deduction.

THE TOTAL TAX PICTURE

A fundamental question overlooked by most analyses of tax reform is developments in state income taxes and Social Security. While many taxpayers may be anticipating a reduction in their federal income taxes, regressive Social Security (FICA) taxes will continue their upward trend as both the tax rate and wage base are increased. In 1987 the current tax rate of 14.3% (7.15% for employees and employers) is applied to a wage base of $43,800, resulting in a maximum tax of $3131.70. FICA taxes may exceed the income tax liability of many taxpayers.

Two income couples will be affected by the loss of the two earner deduction, the restrictions on IRA contributions if their combined AGI exceeds $40,000 (and one or both are eligible for an employer pension plan) while both incomes are subject to Social Security taxes. For example, a two earner couple earning $30,000 a piece would pay $2145 each or $4290, while a one earner couple with a $60,000 income would owe only

$3132.70. The two earner couple pays $1158 more in FICA taxes on the same family income.

State income taxes will likely increase for taxpayers in 33 states and the District of Columbia because these states apply their own rates to federal adjusted gross income [29]. Elimination of the capital gain exclusion and the two earner deduction along with the loss of the IRA deduction for many taxpayers and the shift of employee business expenses to Schedule A (itemized deductions) may result in a substantial increase in the federal adjusted gross income. With states applying their rates directly to federal AGI, many taxpayers could face state tax increases of up to 28% [29]. States experiencing revenue shortfalls may be tempted to collect this windfall [4]. For example, despite an expected $50 million windfall due to federal tax reform, Utah legislators imposed a 4% surtax on 1986 income taxes and increased income and sales taxes by $151 million for 1987 [20]. The governor claimed the state tax increase merely offset the reduction in federal income taxes and thus was simply a transfer of tax liability from the federal to the state level.

IMPLICATIONS

In addition to being labeled the most significant anti-poverty legislation in a decade, the Act signals a fundamental change in government policies by:

1) retreating from using fiscal policy to achieve economic and social goals,

2) changing the framework for financial decisions away from tax concerns and back to basic economic considerations, and

3) reducing the progressive nature of our tax system.

Because of the myriad changes, gradual phase in periods, and the combination of lower rates with a broader tax base, the effects on the economy are difficult to predict. Lauded by proponents as the way to get the country back on course, opposing lawmakers predicted it would adversely affect the economy. Conflicting predictions proliferated as the editors of Changing Times [7] forecast slower economic growth offset by higher consumer spending and others predicted a boom [6, 28] or a recession [14]. In the long run the financial markets will adjust...until the next tax reform bill.

> Underpinning the legislation --which drops individual tax rates to the lowest levels since Calvin Coolidge was President 60 years ago while sharply reducing the number of breaks--is a major philosophical shift away from using federal taxes to encourage certain types of economic activity toward a more laissez-faire approach to economic life. [12, p. 46].

In theory, a more efficient allocation of investments should result from the lower effective marginal tax brackets and elimination of many tax preferences. A misallocation of resources results when tax avoidance outweighs productive investment decisions. Interest rates and inflation should decline when tax rates are reduced and economic assets are allocated more efficiently [13]. Although it is difficult to separate out and quantify the impacts of the Act due to some conflicting changes (lower rates and higher taxable income) and external events [15] the Act will be simultaneously blamed and praised for the results. For example, both the slow down in real estate and the stock market boom have been attributed to the Act [6, 8].

With the elimination of many deductions and credits, Congress has retreated from using the tax code as an instrument for social and economic reform [18]. Most notable but rarely discussed is the reduction in the progressive nature of our tax system, one of the fundamental principles underlying the federal tax system [18]. This results from the decrease in the number of tax brackets from 15 (14 for singles) to three in 1988. One counter argument is that the old law was only progressive in the middle ranges as wealthy taxpayers employed sophisticated accounting techniques and tax shelters to reduce their tax liabilities. However, progressive tax brackets could have been maintained while eliminating deductions and abusive tax shelters.

Taylor [24] argues that the changes inhibit the ability of the tax system to encourage certain economic activities. The low marginal rates and the restrictions in the economic incentives to contribute to charity, invest in capital assets, and save for retirement, weaken the ability of the federal tax system to carry out certain government policies. Taylor maintains that it is cheaper and more effective for the government to encourage desirable activities such as capital investment and retirement savings through tax incentives rather than through government programs. Taylor further argues that the government should expand rather than reduce the incentives for individuals to provide for their economic security by allowing a tax deduction or credit for private accounts to substitute for or supplement Medicare coverage in an effort to reduce the size of federal expenditures. Many tax subsidies benefit middle and upper income taxpayers while providing little or no benefit to low income individuals.

Although tax deductions for IRAs subsidize moderate to high income taxpayers, is it good policy to limit this incentive for saving for retirement? With an aging population that will strain the Social Security system after the year 2000, would it not be more appropriate to encourage more saving for retirement? Is it more fair that only home owners, already a privileged group of taxpayers, will be the only ones entitled to deduct consumer interest, as long as the loans are linked to their home equity?

While the new law maintains the largest tax shelter for middle income Americans--home ownership--critics forecast a serious reduction in real estate values as the rate reduction diminishes the benefit of the mortgage interest and property tax deduction for high bracket taxpayers. However, evidence from real estate activity in early 1987 indicates that the industry is gradually adapting to the changes [8]. Because real estate markets are localized and affected by a wide variety of influences, it would be difficult to partition out the effect of the Act. Similar arguments were heard from virtually all industries and special interests affected by the bill.

For example, now that some industrial purpose municipal bonds will be taxable, investors seeking to avoid taxes can shift to municipal bonds which remain tax exempt [11]. Elimination of the capital gains preference will undoubtedly cause some shifting of assets, yet Gregory [14] argues that the basic principles of asset allocation will remain intact since tax considerations are only part of overall investment portfolio decisions. Other variables (goals, risk, time, liquidity, economic environment, etc.) often outweigh tax considerations.

Because of difficulties in predicting total taxable income at the beginning of the year, many taxpayers will have to decide on the amount of their IRA contribution without full knowledge of the tax consequences. Withdrawals will be more complicated for workers with deductible and non-deductible IRA accounts, since the law requires proportionate withdrawals from taxable and tax deferred accounts. IRA administrative fees may increase as a result. Determining whether to fund an IRA if contributions are no longer deductible, even though earnings continue to compound tax-deferred, will require an astute analysis of alternative investment options such as 401(k) and 403(b) tax deferred savings plans, municipal bonds and single premium life insurance products [19].

The proposition that the borrowing habits of Americans are about to change [22] is not substantiated by an analysis of the consumer credit use. For the 60% of taxpayers who do not itemize deductions the change will make no difference as they do not benefit from this tax loophole. Since 60% of taxpayers do not currently itemize and fewer will in the future and many consumers base their borrowing decision on the size of the monthly payment rather than carefully analyzing the costs and benefits of credit, a substantial decrease in consumer borrowing is unlikely. Given recent interest rate trends, the demographic distribution of the population, and past borrowing behavior, a large reduction in credit use is not likely.

Lenders are vigorously promoting home equity loans as a tax reduction strategy. The perils of using a home equity loan as a continuing source of consumer credit are documented by Consumers Union [9]. A major risk is the lack of a ceiling on the interest rate which is tied to the prime rate. A potential long term detrimental result of increased use of home equity loans may be less flexibility during recessions (possible job loss) and lower equity at the time of retirement which would have negative consequences for financial security.

Gradual adaptation is likely to be the scenario in all the areas affected by the bill. With months of anticipation preceding passage to evaluate the impact and plan actions, the market appears to be adjusting to the many changes [14, 28]

RECOMMENDATIONS FOR CONSUMER PROFESSIONALS

This section suggest some challenges and opportunities for educators and researchers. Since these areas overlap they will be discussed simultaneously. While public policy considerations are related to education and research, some explicit concerns are discussed at the end of this section.

Tax reform without simplification has resulted in more complex record keeping requirements, a five year phase in period to complicate planning, complex IRA rules, and three types of income--active, passive and investment. Taxpayers may perceive a greater need for assistance in tax planning and preparation. Thus, educators face a challenge in communicating the major changes in an understandable manner. Some recommendations for educators include suggestions for the classroom situation and for informing the general public.

Due to the regularity with which Congress has dished out tax "reform" during the 1980s, textbooks are outdated before they come off the press. Because some of the provisions of the Act will change every year through 1991 (and history indicates there are bound to be additional changes between now and then) yearly updates are needed. While a wide variety of sources provide information on the Act, some of the most helpful and accessible sources are articles and work sheets from consumer and news magazines. Encouraging students to read Changing Times, Money, and Consumer Reports, as well as U.S. News and World Report, and similar business publications will provide a continuing education that one term in a personal finance class can only initiate. A useful tool for estimating 1987 and 1988 tax liability are the work sheets provided in many current articles [7, 10, 27]. This estimate is necessary to complete the new W-4 forms for tax withholding as well as general planning. By using these sources in the classroom, educators can introduce students to sources of life long learning.

An important role for educators is to organize information to help taxpayers estimate and plan for their total tax liability. As the example of Utah illustrates, taxpayers need to estimate their state and local (including property) tax liability as well as federal income and Social Security taxes before spending their tax cut. Information on figuring both federal and state tax liabilities is a service not readily available except from a tax professional. Through classes and the media, educators can help sift through the complexities to provide guidance. What resources are available in your community to help low and moderate income taxpayers understand the basics of the Act?

Record keeping will become more important than ever. While not essential, the use of a personal computer can facilitate this task as well as the actual preparation of the tax return. A good tax program can reduce much of the frustration of number crunching and speed up the process of working through case studies to illustrate the changes in the law.

Assisting consumers in evaluating the potential pitfalls and advantages of home equity loans will be a major task for educators. The lack of an interest rate cap is one of the greatest risks. Memories of the prime rate in excess of 20% fade quickly. This situation is analogous to adjustable rate mortgages which were first introduced without rate caps but now provide this protection. This concern raises the question of when education alone is not sufficient to protect consumers. Individual consumer requests for an interest rate cap on their home equity loan is not going to accomplish the goal. Educators need to be public policy advocates; if lenders do not respond to pressure to include caps, introduction of federal legislation imposing an interest rate cap might encourage a voluntary measure by the financial services industry. Obviously, such protection reduces the number of defaults and benefits lenders as well as borrowers. Consumer professionals should lobby for interest rate caps for home equity loans.

For researchers, the home equity loan promotions suggest the opportunity for a longitudinal study of the consequences of these loans on family financial well-being. The use of a home equity line of credit over an extended time period could affect flexibility and the ability to deal with recession and unemployment. Because home ownership is one of the anchors of financial security in retirement, the impact of home equity loans should be studied.

Consumer credit decisions will be more complex so educators can help consumers examine the impact of the gradual elimination of the consumer interest deduction and the advantages of different methods for achieving goals. In a period of high real (inflation adjusted) interest rates and changing fiscal policy, savings may be a more attractive option. Research can help determine the economic impact of the elimination of the interest deduction.

Financial educators will recognize that restrictions on Individual Retirement Account (IRA) deductions are confusing to consumers [23]. Already the media has focused on the IRA restrictions to the point that many people may not realize they are still eligible for at least a partial deduction for their contributions. The new eligibility guidelines may be confusing for some taxpayers, particularly two earner couples, whose income fluctuates appreciably from year to year. The two pronged nature of the IRA tax break further complicates the decision. Because of the advertising emphasis on the immediate tax deduction, many consumers may not realize that they can still benefit from the tax deferral on growth of assets held in an IRA. The growth in the account--interest, dividends, capital gains--will continue to accumulate tax deferred. The question should not be whether or not to save for retirement through an IRA but which of the various tax deferred methods is best for the individual. Alternative salary deferral plans such as employee savings plans, 401(k) and 403(b) salary reduction plans and Keogh plans should be explored as part of the IRA decision process. Educators can assist consumers in making a wise decision by reviewing all the common alternatives. A computer program would be an ideal way to explore these options.

As the financial services industry adjusts to the tax changes that affect investments (particularly the elimination of the capital gains exclusion) and a move away from non-deductible IRA accounts, single premium insurance products (life insurance and deferred annuities) are being promoted as one of the few remaining tax shelters as well as a replacement for a non-deductible IRA. One of the challenges to educators is to inform the public on how to evaluate these heavily promoted financial products that often carry substantial commissions, yearly fees and early withdrawal penalties. Belth [3] provides guidance in assessing these single premium life insurance products. Frequently, advertising is a major clue to consumer education needs; simply examine the volume of advertisements for home equity loans and single premium life insurance products.

Educators and counselors should be aware of the implications of the new law for divorcing persons. Although the new law does not specifically address divorce settlements, the "lower marginal tax rates, less favorable treatment for tax shelters and capital gains, and increased exemptions for dependents mean that some assets and tax deductions that traditionally went to one spouse will now be valued differently" [21].

The next few years will be a time of adjustment for individuals as well as the economy. The Act has brought us a "mind-boggling turmoil of policy crosscurrents" [17, p. 10]. Perhaps the most positive response to this assessment of the Act is to acknowledge that it provides opportunities for research which can be used to influence public policy.

Due to the many off-setting factors, the effects of the law are difficult to predict, especially in the transition years of 1987 and 1988. Be wary of claims of major dislocations in the economy. Although initially the changes will be disruptive, taxes are only one factor in economic decisions. The wide impact and the many provisions with conflicting or balancing impacts suggest the lack of clear cut effects, with one exception. The repeated changes inflicted upon American taxpayers during the 1980s primarily have benefited tax professionals. The changes will encourage more taxpayers to seek professional tax advice. Repeated change produces stress, frustration and confusion, not a way to induce better compliance with the law. For example, consider the case of a family that invested heavily in a 401(k) salary reduction plan in order to finance college for their children [25]. Prior to the Act this money could be withdrawn without penalty to purchase a house or pay for education. Now, all the money previously invested is subject to a 10% early withdrawal penalty. Situations such as this complicate long range planning and may foster an attitude of "Why bother planning? The laws will change as soon as I implement my plan." While educators may consider it a challenge to keep up with the changes, is investing hours of time to understand the new law and overhauling class notes the best use of an educator's and researcher's time?

Senator Lloyd Bentsen, incoming chair of the Senate Finance Committee, has called for the restoration of the sales tax deduction and reinstatement of the full IRA deduction. Despite the potential value of these changes, it is time to send a message to Congress to quit tinkering with the tax code. While there are sections--particularly those relating to IRAs--that should be returned to the pre-Act rules, let it be. Let the economy adapt, allow business and consumers to implement long term planning strategies, don't change the rules of the game in mid-stream. Let the country invest its energies in productive activities under these new rules.

SUMMARY AND CONCLUSIONS

The transition to the new tax code will be confusing to consumers. Just as they got accustomed to inflation and learned to adapt their credit, saving and investing strategies, stable consumer prices became the norm. Taxpayers will likely experience difficulty in making the transition to financial decisions under tax reform. Used to tax subsidies for credit, focusing too much on the tax implications of investments rather than fundamental value, and enjoying a substantial reduction in home ownership costs, moderate to high income taxpayers will need to reassess many of their financial decisions. Old habits and ways of thinking are hard to break. Perhaps we should not try too hard since history indicates that the tax laws are likely to be changed again before we become accustomed to the current law. All these changes mean there will be a greater demand for financial advising services for moderate income individuals.

The biggest unknown is how the new tax code will affect the economy through decisions on investments, consumer credit and home ownership. Preliminary evidence [8, 14] indicates that the markets will adapt. Consumer professionals are challenged to help consumers understand, adapt and plan for financial security under the new rules.

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INCORPORATING CREDIT IN DEMAND ANALYSIS

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ABSTRACT

This paper discusses the implications of credit use for models of consumer demand. It proposes a functional form for, and presents results from, a demand model designed to incorporate the effects of credit use.

The analysis of consumer demand has evolved along two related but distinct lines of thought. Theorists typically begin with the twin assumptions that individuals choose the consumption bundle that maximizes utility subject to a budget constraint, and that data is available to test the validity of their results. Attention is focused on restrictions such as Slusky symmetry and homogeneity which are either implicitly or explicitly imposed. For theoretical economists the imposition of these restrictions is what differentiates a model of consumer demand from a mere description of the correlation between the exogenous and endogenous variables [16, p. 55).

The second school of thought is comprised of those who must gather the relevant data and use it to make predictions and policy analysis. They quickly learn that the data is lacking in both the number of observations and in the definitions employed by the data collection agency. To this group the imposition of restrictions tends to be a little unsettling, as they are more often than not rejected by the data. Restrictions tend to be imposed only when they result in parameters that conform to those predicted by the theory, even when they cause a sign reversal in the estimated parameters. The conformation of estimated results to those predicted by the theory is regarded more as a test of the model rather than a test of the theory. The theme of this paper is that in a situation where the data is weak, it is more logical to build models which take into account the data limitations than to build theoretical models which can never be tested. The example used is the estimation of the impact of credit use on consumer expenditure patterns. There is a fundamental problem with publicly available statistics as they relate to this area. Governments and corporations define expenditures by the date at which the consumer agrees to purchase, rather than the date at which the consumer must find the required funds. If one sums the monthly US per capita expenditures on durables, nondurables, services, and savings, one arrives at the figure reported for per capita disposable income. Yet, Americans spend almost 18% of their disposable income repaying loans, an item that does not appear as an expenditure item [15]. If one purchases a new house, the entire value of the transaction is recorded as a once-off increase in housing expenditures. To the individual who has made the purchase, however, it represents an agreement to consign future expected income to a budgetary item called mortgage repayments.

The government does periodically publish a survey of actual consumer expenditures but these are useless if one needs to examine the impact of changing prices, interest rates, income shocks and other economic conditions on expenditure patterns, as all consumers face those conditions prevalent when the survey was undertaken. The economist has three options. He/she can assume that the expenditure figures measure how individuals spend money (rather than measuring sales made by corporations) and estimate a demand system using available data. This is equivalent to assuming consumers pay cash for all items. The second option is to assume that the correct data exists and examine the intertemporal optimization decision within a dynamic demand system. The lack of suitable data means that these models can never be tested.[2]

The third option and that follows in this paper is to begin with a description of the data limitations, discuss which aspects of the theory are relevant to the particular data set, and estimate the model within the confines of the relevant theory. The test of any hypothesis regarding consumer behavior will therefore be a joint test of both the underlying theoretical model, and of the specified hypothesis itself, hence the theory used is as unrestrictive as possible.

BACKGROUND

In a study published in 1985, Johnson and Widdows examined the emergency fund levels of households. They reported that the total value of all emergency funds (checking and savings a/c's, certificates of deposit, and savings certificates) had fallen dramatically in the six years prior to 1983. The median family had emergency fund levels equal to 16% of annual pre-tax income in 1977, by 1983 this had fallen to 7%. In the latter year only 77% of families had sufficient funds to maintain consumption over a typical period of unemployment. Recent evidence indicates that the level of emergency funds has fallen even further since 1983. The savings rate

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[2]Most of the intertemporal demand equations that have been estimated assume that the intertemporal consumer choice can be decentralized, i.e., the consumer first allocates his budget to different periods, and then to different goods and services within the period, with each period's budget acting as a binding constraint, again this makes the analysis of credit use impossible.

fell from 6% at the end of 1983 to less then 3% in September 1985 [6].

This decline in readily available funds does not seem to have adversely affected the credit worthiness of the typical consumer (as measured by the willingness of lending institutions to extend credit). In fact the ratio of consumer installment and home mortgage credit outstanding to disposable income has been trending upward on a path that appears the mirror image of the savings rate [15, Chart 1].[3]

The ratio of debt service repayments to disposable income has also trended upwards. This was particularly evident during 1985. It reached 17.6% in January 1986 making this item more important than food in the consumers' budget [15].

The media has been quick to use figures such as those quoted above to predict an ever increasing delinquency rate [18]. There is, however, no proven relationship between the debt service load and the delinquency rate [5]. One may think of debt service payments as expenditures which must be paid in the manner of a tax, and the income remaining after such payments as discretionary income. While it is true that an increasing dependence on credit must eventually necessitate an increase in the proportion of disposable income used to service the debt, it does not follow that the absolute amount of real discretionary income will fall. Just as a real income increase can negate the impact of a tax increase leaving the consumer with more disposable income, then so too can a real income increase compensate for an increased debt service load, leaving the consumer with more discretionary income. Even if real income should fall, a high debt service obligation does not imply increased deliquencies. Consumers can continue their repayments by reducing cash expenditures on nonessentials and, if the income fall is viewed as transitory, by increasing their credit usage.

An increased reliance on credit does, however, have important implications for the way in which we construct and interpret models of consumer expenditure using available expenditure information. Consider how the ready availability of credit influences the consumers' budget constraint (which is used to derive both the Slusky symmetry and homogeneity conditions). With interest rates of 18-22% on credit cards, banks are more than willing to extend credit to consumers who would ordinarily be considered credit risks. A recent Nielsen survey indicated that the average credit card holder had access to 7 credit cards [18]. The absence of cross checking with other lenders has led to a situation where some consumers have access to almost unlimited short to medium term credit. So long as this is the case, the budget constraint is binding only to the extent that consumers are unwilling to consign a significant proportion of expected future income. Paradoxically the more dependent consumers become on credit the less willing they are to ruin their credit record by defaulting. The absence of a budget constraint invalidates all restrictions based upon it, when the expenditure data on which the restrictions are imposed, are those provided by the government. An example of the importance of this problem can be found in what has by now become a fall tradition - low finance rates on cars. Consider the imposition of Slusky symmetry between any other expenditure item and automobiles in a monthly or quarterly model. A fall in car prices will result in a large increase in <u>reported</u> automobile expenditures but this will be reflected in other categories only to the extent of the <u>downpayments</u> made on automobiles. Any estimate of the compensated cross price elasticity between cars and other categories will be downwardly biased because consumers can spend more than they earn. This bias will remain so long as consumers are willing to increase their reliance on credit, with increasing real incomes this process can continue indefinitely. One would therefore expect that Slusky symmetry would be rejected by the data.

A second theoretical result that bears further scrutiny is the impact of transitory income shocks on consumption patterns. The Life-Cycle Permanent Income Hypothesis (LCPIH), which is now generally accepted as the correct application of theory to explain the allocation of consumer spending through time, predicts that transitory shocks have a minimal impact on consumption patterns. Most quantitative tests, of the LCPIH have concluded that consumption is sensitive to transitory shocks and have rejected the hypothesis. Flavin in a paper entitled "Excess Sensitivity of Consumption to Current Income; Liquidity Constraints or Myopia?" reports studies by Blinder [3], Hall and Mishkin [11], Hayashi [12], Sargent [17], and Flavin [7] which rejected the LCPIH. In addition to ignoring the problem of credit repayments, and assuming expenditure data exists, the LCPIH also assumes; that capital markets are perfect in the sense that all borrowing and lending occurs at the same riskless rate [10, p. 974], the rate of return or assets is constant and expected to remain so [2, p. 59], that the assumption of a utility function that is separable in the major categories of consumption-durables, nondurables and services allows the estimation of one of these groups alone as the consumption concept [8, p. 129] and finally that a liquidity constraint exists that is an upper bound beyond which consumption cannot occur [8 and 12]. The combined impact of these assumptions is to assume away the reasons for, and problems associated with, credit use. For a detailed account of the impact of these assumptions see Hayes [13], where it is shown that when a more realistic attempt is made to incorporate

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[3] An interesting, but to the author's knowledge, untested hypothesis is that the decline in the U.S. savings rate is a direct result of the increasing availability of credit. This would occur if consumers used credit in lieu of savings to purchase big budget items, or felt that they could rely on credit cards to stretch their budget in the event of a rainy day.

the credit market as it currently exists, consumption can be expected to be sensitive to transitory shocks. Intuitively, this can be argued as follows. Consider the impact of a negative transitory shock on a heavily indebted consumer. Additional credit may be available but only at considerable expense and with some delay. In the interim, cash will be scarce. Items which cannot be purchased on credit (food and some services) will bear the brunt of the adjustment, while other categories will suffer only to the extent that credit is unavailable. The attempt to stretch the budget to the next paycheck will alter all the parameters of the demand system. The consumer will be more price conscious and will purchase food more on the basis of nutrition than taste. The impact of a positive transitory shock will not be symmetric as the additional income may be used as a downpayment on a budget item if the consumer feels the repayments can be made from expected future income. The analysis of this decision is complex but will depend on the relative interest rates on credit and savings, the expected change in the price of durables, and the ability to obtain additional credit to counteract the inflexibility such additional repayments introduce into future budgeting decisions.

Finally, one must question the estimates of the income elasticity of demand that would be forthcoming from a model that ignores the above mentioned factors. If one uses expenditures as the correct measure of income the estimated elasticity will depend on the elasticity with respect to earned income and with respect to the "income" which can be achieved by using credit. One must also ask; whether the correct measure of income is disposable or discretionary, and the proportions of disposable income that is transitory and permanent. The choice and estimation of a model that avoids the pitfalls forms the remainder of this paper.

Selecting the Underlying Function Term

The first step in model selection must be in the choice of the underlying function form. The desirable properties of the static model are listed below:

(a) It should be amendable to dynamic formulation.

(b) It should impose no appriori restrictions on the relationships between estimated parameters.

(c) It should not be derived from the assumption of maximization subject to a budget constraint.

(d) No restrictions (other than adding up) should be placed on the parameters

(e) One should be able to test for a different reaction to economic conditions depending on whether credit is or is not available. (This entails estimating a model with both durable and nondurable expenditures).

(f) The time period between observations should be as short as possible to avoid problems with the simultaneous determination of supply and demand, and income and expenditures. Monthly data is also required to allow an accurate estimation of the size of transitory shocks

The Almost Ideal Demand System (AIDS) [4] meets specifications (a), (b), and (d). For condition (c) the AIDS demand function can provide a first order approximation without maximizing assumptions [4, p. 315].

The AIDS demand system can be written

$$w_i = \alpha_i + \sum_j \gamma_{ij} \log P_j + \beta_i \log \left(\frac{X}{P}\right) \qquad (1)$$

where the budget share for commodity i (w_i) depends on the prices of commodity groups 1 to j and total expenditure X. α_i may be interpreted as the average amount of the ith budget share when prices and real income are normalized to one. The parameter γ_{ij} measures the change in the ith budget share corresponding to a 1% change in P_j ceteris paribus, β_i measures the change in the ith budget share caused by a 1% change in log X ceteris paribus. P is a price index[4] which can be approximated by

$$\text{Log } P = \sum_i w_j \log P_j \; .$$

Property (f) was achieved by estimating a monthly model from January 1959 to 1983.

Property (e) depends on obtaining an estimate of deviations between expected and actual income. Any tests performed on the final model will be a joint test of the method used to determine transitory shocks. Considerable effort was therefore placed on the specification of this variable. Hall [10] provides an intuitively appealing motivation for including only consumption in t to predict consumption in t+1, his model is, however, based on the REPIH. Other variables available are the consumer confidence index, the index of consumer sentiment, the lagged value of real income in previous months and the increase in expenditures in previous months.

In the most general form if we let x_t be the expected value of the entire x vector of income and price variables and assuming that agents predict economic behavior on the current and past realizations of both prices and income then we can write

$$x_t = \Omega \, x_{t-i} \qquad i = 1 \ldots T \qquad (2)$$

on estimate of x_t can be found using the regression

[4]This approximation termed the Linear Approximation to AIDS has been used successfully in Anderson and Blundell [1] and in the seminar paper by Deaton and Muellbauer [4].

$$x_t = \Omega[x_{t-1} \cdots x_{t-T}\ c_{t-1} \cdots c_{t-T}\ CCI_{t-1} \cdots CCI_{t-T}]' \quad (3)$$

where CCI is a measure of consumer confidence and c_t is actual consumption in t. The inclusion of zeros in the Ω matrix allows several alternate tests.[5]

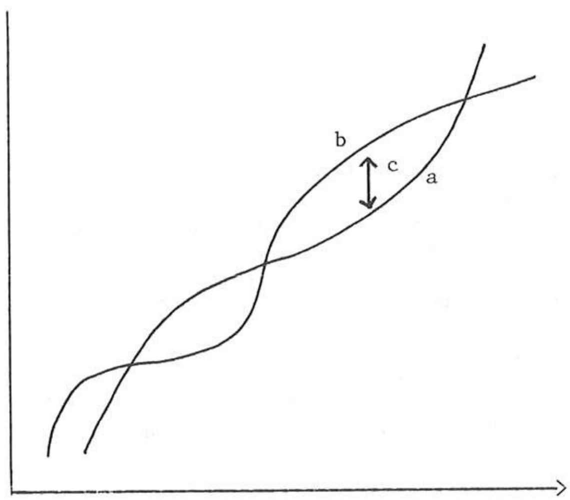
If we define positive error terms from the above regression as negative transitory shocks and negative terms as positive shocks, then a model capable of estimating the impact of derivations from modern term expectations can be built. This is shown schematically in Figure 1.

In Figure 1 line a is the actual path of real income, line b the OLS estimate and the vertical distance, c, is the size of the transitory shock. The dummy variable σ allows for an unsymmetric response to transitory shocks.

Let $D = x - x_t$

Define $\delta = 0$ if $D \geq 0$
$\delta = 1$ otherwise

FIGURE 1. A Schematic Representation of the Method Used to Determine the Size and Sign of Transitory Shocks



CHOOSING A DYNAMIC FORMULATION

The second stage is to extend the above model to capture the dynamic adjustments to macroeconomic shocks. In addition to the properties specified for the static model, the dynamic model should

(g) provide both short and long term elasticities

(h) have sufficient parameters to provide estimates of elasticities for different vectors of price and income.

(i) not impose any specific adjustment process.

Anderson and Blundell [1] have extended the AIDS model to satisfy these restrictions. Consider the long run equilibrium structure

$$w = f(Z, \theta) \quad (4)$$

where θ are the underlying preference parameters and Z a vector of income and price variables. The AIDS model allows us to write

$$w = \pi(\theta)\tilde{x} \quad (5)$$

where $\tilde{x}$ is a vector of transformed income and price variables and π some constant matrix function of the underlying preference parameters.

Anderson and Blundell [1] define a general first order dynamic model as

$$\Delta w_t^n = A\Delta\tilde{x}_t' - \beta(w_{t-1}^n - \pi^n(\theta)\, x_{t-1}) + \varepsilon_t \quad (6)$$

where $\tilde{x}_t'$ represents the $\tilde{x}$ vector with the constant term excluded and n defines an operator that deletes the nth row of any vector or matrix. The deletion of the last row of the share vector and the long run parameter matrix $\pi(\theta)$ is essential since the budget shares sum to one. For a discussion of the econometric properties and the maximum likelihood estimation technique for this system see Green and Johnson [9].

For the purposes of this paper the model can be extended to

$$\underset{n\times 1}{\Delta w_t^n} = \underset{n\times n+1}{(A} + \underset{n\times n+1}{\delta A^*)}\ \underset{n+1\times 1}{\Delta\tilde{x}'} - \underset{n\times n-1}{B}\ \underset{n-1\times 1}{(w_{t-1}^n} - \underset{n-1\times n+1}{\pi(\theta)^n}\ \underset{n+1\times 1}{x_{t-1})} + \underset{n\times 1}{\varepsilon_t} \quad (7)$$

where δ is the dummy variable defined above.

The income variables used in the $\Delta\tilde{x}$ vector change the interpretation of the A matrices but not the estimates of the long run parameter matrix. Hence, we may include the measure of unexpected change in income from above.

INTERPRETATION OF THE A AND B MATRICES

The elements of A* represent the response of each share to short run negative shifts in the explanatory variables. The elements of (A + A*) represent the overall response to changes in these parameters. If the inclusion of A* fails to significantly increase the overall fit of the model they should be dropped. This is equivalent to the rejection of the hypothesis positioning dependency of consumer reaction to the sign of

[5]The estimated results were not sensitive to restrictions on Ω, so long as the estimated equations had high R's.

the movement in real or transitory income. Some coefficients of interest in the A matrix are a_{hh}, a_{fh}, and a_{ff}. These terms are respectively; the reaction of the housing share to a 1% change in housing prices, the reaction of the food share to a 1% change in housing prices, and the reaction of the food share to a 1% increase in food costs. These are the average amount by which consumers adjust to a one month change in the dependent variables.

The elements of the B matrix represent a change in share i caused by a deviation from the desired level of share j where i=1 ... n-1 and j=1 ... n. Typical elements would be b_{fh}, b_{fe} and b_{ff}. These terms may be interpreted as; the deviation from the optimal level of the food share caused by a 1% difference between the actual and desired levels of the share devoted to housing, energy, and food respectively. A value of $b_{fh} = -.3$ would imply that in months where the starting value of housing consumption was 10% above the value dictated by the parameters of the long run system, food consumption would on average be 3% below the desired figure.

Notice that the parameters of the long run system need not be similar to those that we would have estimated in a static model. In Anderson and Blundell [1] the parameters of the static model are in every case rejected in favor of the dynamic representation.

The estimation of equation 7 requires the use of the nonlinear routines. Comparisons of different specifications should be based on the asymptotic likelihood ratio criteria. The large number of observations makes it unnecessary to make the small sample corrections proposed by Anderson and Blundell [1].

APPLYING THE MODEL TO U.S. DATA

Monthly expenditures figured on each of the categories listed in Table 1 are available from January 1959. Price indices for each of these categories are either publicly available or can be constructed.[6]

The consumer confidence index is unavailable prior to 1969. A proxy for consumer confidence, the actual increase in total spending for the previous month allowed the estimation to begin in January 1959. The results are presented below. A full description of all results would greatly extend the paper. The emphasis of the reported results is on food sales and on credit use. Only the adding-up restriction has been imposed. Table 1 shows the effect on the various consumption shares of negative income shocks, measured in billions of dollars.

[6]The methods used to construct the missing price indices are available from the author on request.

TABLE 1. The Short Term (Monthly) Impact of an Unexpected 1% Negative Deviation Between Actual and Expected National Disposable Income on the Share of each Expenditure Category

Consumption Category	Change in Share
Food	-0.0002337
Clothing and shoes	0.0002116
Gasoline and oil	-0.0002005
Fuel oil and coal	0.0000796
Other nondurables	-0.0002278
Motor vehicles and parts	0.0002891
Other durables	0.0002337
Housing services	0.0000679
Household operations	-0.0001860
Transport services	-0.0000390
Other services	0.0000051

For economists use to thinking of food as a necessity, the decline in the food share seems counterintuitive.[7]

It is commonly felt that American consumers first decide how much they will spend on necessities, i.e., food and shelter, and then allocate the remainder of their income among other less important or luxury items. Any unexpected reduction in real income would be expected to impact first on savings and then on luxury items, durable goods, travel and service. This reasoning best explains consumer behavior in economic conditions more stable, less complex and with lower standards of living than those existant in this economy. In reality, food as defined by government statistics or as seen in a typical shopping basket contains items either superfluous to or of a quality and price well above those required solely for nutritional needs. For most shoppers the marginal dollar spent on food seems to be regarded as something which can be foregone in the event of a budgetary squeeze. In addition, food is one of the very few items which cannot be purchased on credit. In the event of negative transitory shocks, it is cash, and not credit availability that is scarce. The substitution of lower priced meats for the more expensive cuts seems a painless way to stretch the cash budget to the end of the month. The increase in the share allocated to clothing and shoes, motor vehicles and parts, and other durables seems to indicate that consumers use credit cards to maintain consumption of these items when the shock is transitory. This makes perfect sense so long as the decline in living standards is viewed as temporary in nature.

If the above results have validity, they demonstrate the importance of including the differential availability of credit in demand analysis.

[7]The coefficient on the food share was significant only at the 90% level. However, when a similar model was estimated using the share of food sales in total retail sales this figure was negative and significant at the 95% level.

The coefficients reported in Table 2 measure the short term response to deviations in shares from their optimal level, this is similar to a partial adjustment coefficient. The interpretation of these coefficients is complicated. It is impossible to differentiate between the agents inability to adjust shares to their new desired levels, and their desire to do so. If the level of expenditure on one expenditure category was constrained above equilibrium, some other share would by definition be below the desired level. Despite this, some general comments can be made. The response of durable goods is in general lower than that for nondurables. This is especially true for housing services. The low figure for transport services may reflect the inability of public transport commuters to react to increases in ticket prices, while that for other services may be due to the high labor content of the commodity. The response time for food is low relative to other nondurables. Examination of the cross price elasticities between food and housing seems to indicate that the response of the food share is retarded by its use as counter-balance to the housing share.

TABLE 2. Measured Short-Term Response to Deviations in Shares From Their Optimal Level

Expenditure Category	Response
Food	.292
Clothing and shoes	.462
Gasoline and oil	.271
Fuel oil and coal	.564
Other nondurables	.395
Motor vehicles and parts	.264
Other durables	.205
Housing services	.067
Household operations	.304
Transport services	.101
Other services	.092

THE INFLUENCE OF PRICES AND INCOME ON FOOD DEMAND

The dynamic nature of the model allowed for the simultaneous estimation of the impact on the food share, of both short and long term changes in its own price and the price of competing products. For example, an increase in the price of housing may have two measurable effects on food demand. The immediate effect would be an increase in the housing share at the expense of the shares of the more flexible areas. Given sufficient time however, people can gradually move expenditures away from housing and back into the competing areas. The parameters estimated for the AIDS are those that occur in the absence of inflexibilities. They are, in essence, the response agents would like to make to changes in economic conditions. It can therefore be expected that elasticities measured from these will be larger than those arising from models where agents are assumed to adjust instantaneously. There is no a-priori reason to expect the direction of response to be similar in both the long and short run and as can be seen from Tables 3 and 4, the effect of changes in house prices on food demand depends greatly on whether one is considering the short or long run.

The numbers in Table 3 are the short run estimates of the percentage change in the food share due to a 1% change in the prices of each expenditure category. The negative signs for transport and housing services may reflect the inability of agents to respond to increases in the prices of these services.

The long run or unconstrained cross-price elasticities between food and the other expenditure categories is shown in Table 4.

The structure of the AIDS allowed for measurement of the long run elasticities for all data points.

Table 4 presents only the extremes of the estimated cross-price elasticities. It is interesting to note that while a short run increase in the cost of household services tends to decrease the food share, this is not true in the long run. This implies that the reduction in the food share that occurs immediately following an increase in this cost is forced on consumers via the inflexibility of the housing market. The negative sign for the last three expenditure categories implies that even in the absence of constraints consumers maintain consumption of these services at the

TABLE 3. The Short Term Response of the Food Share to Price Changes in Each Expenditure Category

	Response
Food	0.1729
Clothing and shoes	0.1742
Gasoline and oil	0.1015
Fuel oil and coal	0.1161
Other nondurables	0.0064
Motor vehicles and parts	0.0363
Other durables	0.0677
Housing services	-0.0128
Household operations	0.0094
Transport services	-0.0657
Other services	0.0220

TABLE 4. Unconstrained Cross Price Elasticity for Food

Expenditure Category	Elasticity Range
Clothing and shoes	0.36 - 0.49
Gasoline and oil	0.05 - 0.07
Fuel oil and coal	0.06 - 0.08
Other nondurables	0.02 - 0.02
Motor vehicles and parts	0.17 - 0.23
Other durables	0.26 - 0.34
Housing services	0.16 - 0.22
Household operations	-0.28 - -0.39
Transport services	-0.40 - -0.55
Other services	-0.15 - -0.21

expense of the food share. These variables tend to be labor intensive. Increases in real national income through time has increased the relative price of these categories. Consumers have reduced the food share to increase their service related expenditures. This trend seems likely to continue so long as real income rises.

Figures 2 and 3 plot the behavior of the own price and income elasticity of demand for food. These estimates are taken from the long run model. The absolute values of both are high, reflecting the unconstrained nature of the estimate. Both measures have become inelastic and behave countercyclically through time. The income elasticity of demand for food in 1974 was higher than at any point during the prior decade. As hypothesized, these measures are dependent on the direction of changes in real income. A given percent decrease in real income causes a larger change in food expenditures than a similar increase in real income.

SUMMARY

An attempt has been made to build and estimate a model, that acknowledges the limitations of published statistics, and which allows for the effect of credit on patterns of consumer expenditure. The model departs from the tradition of estimating demand systems only for nondurable goods. The results indicate; that consumption patterns depend on transitory shocks, that consumers adjust slowly to movements in both price and permanent income, and that the availability of credit can be a determinant in the short term reaction to shocks.

The ready availability of credit has been ignored in most empirical application of demand analysis. The recent increase in credit dependence and reduction in the emergency funds level of US households will be increasingly detrimental to the performance of models which ignore these developments. The results provide support for the hypothesis that the refusal of most retail food stores to accept credit occasionally reduces sales of food items which can be substituted for with less expensive goods. These results indicate two fascinating avenues for further research. The first would be to build a demand system which treats credit repayments as an expenditure item and credit taken out as a form of income. The coefficients on these variables would provide useful information on the factors determining credit use and on the impact of credit repayments in expenditure patterns. The second possibility is to collect time series data on meat sales from one of the few retail food chains which accepts credit. This could be compared with meat sales from similar stores within the same chain which do not accept credit. The effect - if any - of credit availability on the sales of better quality meat cuts would be of interest to both food retailers and livestock producers.

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FIGURE 2. Own Price Elasticity of Demand for Food

FIGURE 3. Income Elasticity of Demand for Food

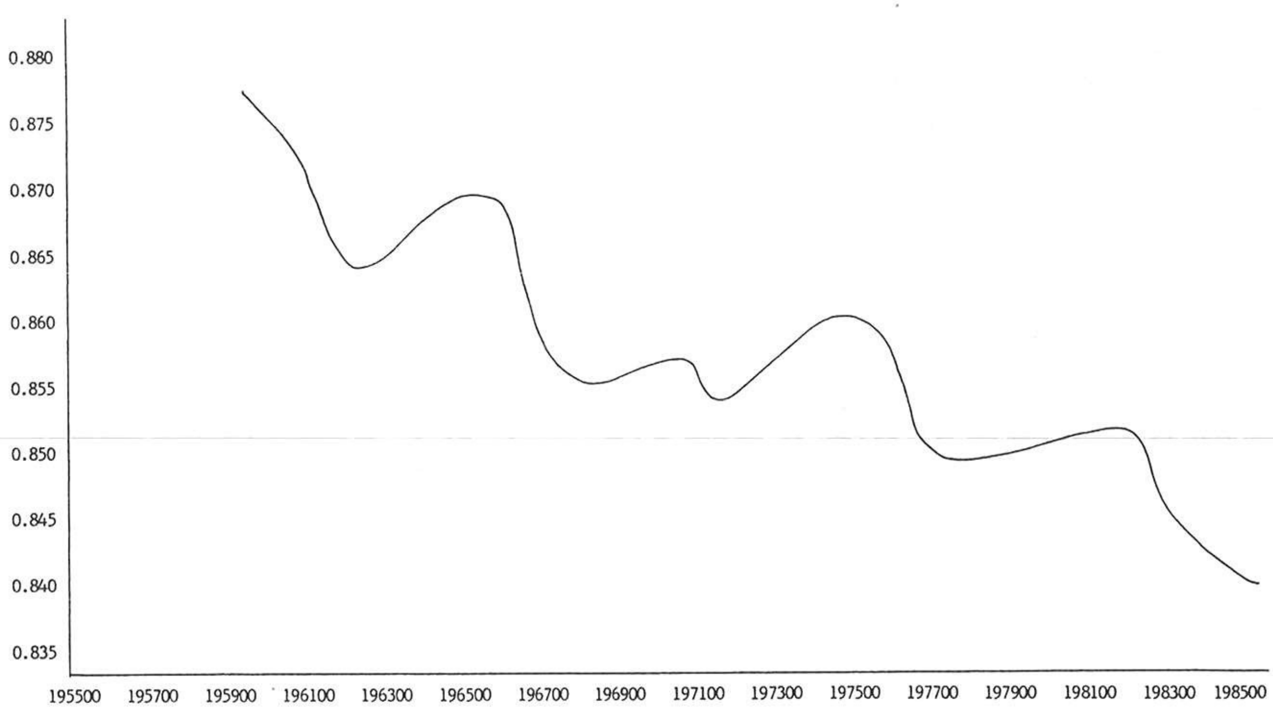

Figure 3. Income elasticity of demand for food

DISCUSSION

Stewart M. Lee, Geneva College[1]

ABSTRACT

Basically there is no relationship among these three papers except that they deal with money. Morse presents an in-depth analysis of the legislative history of truth in savings. Hayes presents a heavily quantitative analysis concerning credit in demand analysis. Lown gives a detailed summary of the Tax Reform Act of 1986 and shows what consumer professionals can do to help their students understand the Act and implement its features into their financial planning.

MORSE PAPER

No one is better equipped to speak to the subject of Truth in Savings than Dr. Richard L. D. Morse, who might well be called the father of Truth in Lending and now the father of Truth in Savings. For 24 years Dr. Morse has been fighting the battle for Truth in Savings. He has given us an excellent legislative history and status report. He contends that there is just as logical an argument for exactness in quoting interest rates for savings as in quoting interest rates for lending. In many ways this legislative history of Truth in Savings is a history of Dr. Morse's activities.

The battle over how interest rates should be expressed has centered around the periodic percentage rate, annual percentage rate and the annual percentage yield. The goal is to have a uniform method of interest rate computation for savings accounts.

Resistance to change, even when the change is for the better, generally dominates. We have seen that in the attempts to go metric. Traditions fall hard.

Morse's advocacy for using the daily rate expressed in cents per $100 is very similar to unit pricing in the marketplace. It is simple and precise, an excellent standard, and who can be opposed to unit pricing?

Morse is not Don Quixote. He is fighting a battle against the entrenched powers of the traditionalists. He fought the same battle for Truth in Lending and time proved him right. The interest rate on savings accounts may never be quoted in cents per $100, but if it is, savers will owe a debt of gratitude to the persistence of Dr. Morse.

HAYES PAPER

The estimation of the impact of credit on consumer expenditure patterns is fundamental in his research.

There is a lack of precision of impact of credit use on consumer expenditures because of the ways the data are reported, which Hayes illustrates in the purchase of a house. The value of the house is a "once-off" increase in housing expenditures even though paid for over 15, 20, or 30 years.

Hayes in the few minutes allowed has attempted to brief a complicated mathematical analysis. One needs to read the paper in detail to get the full impact of his analysis, and even then one may find it somewhat difficult to absorb.

For those who might have trouble with all the detailed formulae, measures of elasticity and cross-elasticities, discussion of coefficients, etc., I feel sure will be enlightened by the succinct summary, particularly the hypothesis that the refusal of most retail food stores to accept credit occasionally reduces sales of food items which can be substituted with less expensive goods.

Hayes has done an interesting piece of research and has indicated some interesting areas for further research in the areas of demand and credit inter-relationships.

LOWN PAPER

Anyone who is brave enough to take on an analysis of the Tax Reform Act is either to be congratulated or pitied. I believe it is important to notice that the Act is called the Tax Reform Act. It certainly is not proving to be the Tax Simplification Act. Just remember one aspect of simplification--the W-4 form!

Lown points out that the marginal tax rate is reduced from 50% to 38.5% in 1987, and then points out that it was 70% in 1981. Some of us remember when it was 91%--not that it impacted on us!

Lown has done, in this paper, what I have not seen done in any other study of the Tax Reform Act, and that is to analyze it strictly as to how it affects consumers.

Lown's references in one case refer to a slowdown in the stock market boom. Even though 1987 references, they must have been written in 1986. There has not been a slowdown, just the opposite until this week!

There should be fewer tax avoidance strategies. There should be, but the way interest is being

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treated, as Lown points out, is stimulating a whole new activity--home equity loans. How many consumers are going to be burned by this? Those who mortgage their house to buy a car to get the interest deduction, then lose their job and then lose their house. The red flag should be waved here.

Lown has done a good job pulling together in her paper many of the Act's provisions which makes it a good reference tool to show teachers what they can and should do in helping their students understand and implement the changes brought about by tax "reform."

I like her concluding statement. "Consumer professionals are challenged to help consumers understand, adapt and plan for financial security under the new rules."

THE SOCIAL BENEFIT AND SOCIAL COSTS OF CONSUMER CREDIT

David Caplovitz, Graduate School of the City of University of New York[1]

ABSTRACT

Outstanding installment debt has grown by leaps and bounds since World War II, from 29 billion dollars in 1955, 150 billion in 1975 to 620 billion today. For all its benefits, consumer credit has given rise to a serious social problem: debt entanglement. Fifteen to twenty million people are hopelessly entangled in debt. Many were victims of consumer fraud which has been greatly stimulated by consumer credit.

In the first part of my paper I would like to talk about the institution of consumer credit as it has evolved in the United States, including some of the causes of this phenomenon. In the second part, I would like to talk about the situation of consumer-debtors, especially those who have run afoul of the system, the default debtors. In the course of talking about these topics I will have something to say about the laws regulating consumer credit, laws that were traditionally heavily biased in favor of the creditors.

THE GROWTH OF THE CREDIT SOCIETY

Within the span of only a few generations, America has been transformed from a cash to a credit society. Installment credit is by no means a new phenomenon. Expensive books, such as encyclopedias were sold on the installment plan in the eighteenth century. The honor of inventing installment selling as we know it today belongs to Mr. Singer, who sold his sewing machine on credit back in 1856. For many years, installment credit was viewed as somewhat disreputable and was engaged in more by the working classes and the poor than by the well-to-do. With the advent of the automobile, installment credit achieved legitimacy, but it did not fully come into its own until after World War II. At the end of the war, outstanding installment debt was a negligible 2.5 billion dollars. A decade later, in 1955, it stood at 29 billion; by 1965 it had climbed to 66 billion and ten years later in 1975 it had more than doubled to 150 billion. Its growth in the past decade has been truly explosive. Today, in 1987, outstanding installment debt has more than quadrupled and stands at 620 billion dollars. This comes to more than $7,000 in installment debt for each American household. This excludes mortgage debt and such noninstallment debt as medical bills.

A few generations ago, debt was frowned upon and only imprudent people were in debt. Today, being in debt is the American way of life and a person's credit rating is a major asset, the key to the good things in life. The growth of consumer credit has been so rapid and so pervasive that we might well ask what conditions have led to this transformation to a credit society?. Of primary significance, of course, has been the growth of the economy in general, the rising income of the population and the expansion of its consumer aspirations. As the economist George Katona has noted, it was not until the end of World War II, that America emerged as the first society in history in which a majority of its citizens had discretionary income, that is, enough money left over after meeting its needs, to indulge its wants. But the growth of consumer credit is not merely a reflection of economic expansion, for installment credit has grown at a much faster rate than either gross national product or disposable personal income. Between 1950 and 1970 installment credit grew at the rate of 11 percent a year, while GNP grew at a rate of 5.8 percent and personal income at a rate of 5.5 percent. And the past decade has seen a major recession and slow economic growth and yet installment credit has quadrupled.

The growth of consumer credit must also be understood in terms of the marked shifts in the occupational structure: the growth of the new middle class of salaried employees and the decline of the old middle class of entrepreneurs. The status claims of the old entrepreneurial middle class rested upon the ownership of property. As entrepreneurs, its members operated in a world of risk, susceptible to the vicissitudes of the market place. Entrepreneurial success depended on the judicious allocation of income to capital investment. To the extent that its members acquired debts, it was for the purpose of production rather than consumption. Only those who achieved wealth could afford the luxury of conspicuous consumption. In contrast, the new middle class, employed in large bureaucracies, has provided a ready market for consumer credit. This is so for two reasons. First, the members of this group, unable to rest their status claims on property, are under strong social pressures to acquire the consumer goods that symbolize the middle-class style of life, a pressure that is experienced even by those whose incomes are relatively low. Second, the new middle class is reasonably assured of job security and thus of a steady and even rising income. For the credit transaction to occur, both the debtor and the creditor must assume that the debtor's income is secure. It might be hypothesized that the bureaucratization of the world of work is a prerequisite of the credit society.

Another factor contributing to the credit society is the disjunction between the family life cycle and the income cycle. Salaries in bureaucracies tend to be low at the start and gradually peak when the worker is in his fifties. But workers

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