The Pursuit of Balanced Income An Economic Perspective on Wealth

Calvin E. Pierce
University of Denver

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The Pursuit of Balanced Income
An Economic Perspective on Wealth

A Thesis
Presented to
the Faculty of Social Sciences
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In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
Calvin E. Pierce
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Advisor: Tracy Mott
ABSTRACT

The purpose of this thesis is to determine if households with moderate incomes have the opportunity to acquire pecuniary wealth. In an environment of increasing globalization, labor-eliminating technology, and an overburdened entitlement system, the position of wealth is necessary for households with a penchant for early retirement and particularly for those that will inevitably succumb to involuntary retirement. In these writings, qualitative and quantitative descriptions of wealth are offered; two microeconomic metrics are introduced to identify baseline wealth and to gauge proximity to this value; and strategies are devised to close the gap between these metrics.

The construct of the economic intertemporal household budget was used as the basis for this research whereby conventional measures of wealth, i.e. net worth and liquid net worth, have been coupled with historical and empirical household data to define and extrapolate wealth and wealth proximity metrics. The major finding is wealth is a dynamic variable contingent upon consumption level rather than income or saving levels. And because households exercise a greater degree of autonomy over consumption, moderate earners are afforded the same opportunities as high earners. The position of wealth is necessary because it sustains consumption in the event of an unwelcomed retirement and it can assuage reliance on entitlement programs. For the majority of households, wealth is a matter of choice.
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PREFACE

Why do people work? The reasons given may vary from satisfying some deep individualistic, social, emotional or psychological need to providing a sense of purpose, meaning, fulfillment, or identity. The renowned psychologist, Sigmund Freud, is purported having said that love and work are the cornerstones to happiness. Opinion Research, a consulting firm in Princeton, New Jersey, conducted a study that involved 30,000 U.S. workers. This study found that most people expressed a positive feeling about the work they do, however, roughly 47% either disliked or were ambivalent about the company they worked for, which is an increase from roughly 34% in 1991. When Fortune magazine asked managers, from CEOs to warehouse supervisors, why they worked, the three most common reasons cited were to make the world a better place; to help themselves and others on their team grow spiritually and intellectually; and lastly, to perfect their technical skills.¹

¹ An increasing number of people are taking more pride in what they do and less pride (codependency) in the companies they do it for primarily due to the uncertainty of employment and the growing belief that hard work is no longer the prelude to success or advancement.
Uncle Lew’s (the late Lewis A. Golden) supposition on work was “do what you love or learn to love what you do, otherwise you will neither be happy nor successful.” These words of wisdom have undoubtedly eluded many workers as evidenced by the large percentage of the workforce that is disenchanted with the work they do or the company they work for. The high dissatisfaction rate with work leads one to wonder if reasons other than the ones alleged are the true impetus for work. One is also left to wonder if there are those who engage in work because the alternative is more disdainful as individuals of sound mind and body are supposedly morally obligated to not burden society. Perhaps the majority of us engage in work, even distasteful work, for income because we can ill-afford not to. Whatever the reason for working, only one of two reasons (barring death) will cause work to cease – you will tire of it or it will tire of you. In other words, you will cease work on your own accord or that of another. For those whom are particularly dissatisfied with their work or place of work, perhaps the primary reason we continue this endeavor is we are economically dependent upon work for income to acquire the things we need and want, however, retirement is imminent.

In coming to terms with the implications of retirement, it is important to understand what it is. Webster’s dictionary defines retirement as the “withdrawal from one’s position or occupation or from active working life.” The word “withdrawal” connotes choice or one’s own accord. One might deduce from this definition that an inordinate amount of time spent performing work will eventually induce fatigue, boredom, faltering skill or interest and thus bring about freewill or voluntary retirement.

2 The definition presumes that households have the luxury to retire on their own accord. This is generally not the case anymore as households are often forced into retirement due to the accord of others.
This deduction is not uncommon and supports the seemingly general consensus that a certain number of years must be spent in the workplace or a certain age must be attained before retirement eligibility which is reinforced by a myriad of retirement programs geared around age and/or tenure in the workplace. For example, individuals are eligible for retirement income, such as social security and/or private pension annuities, after reaching a certain age (i.e. 65) and/or having spent a certain number of years (i.e. 40) performing work. The definition of retirement and the various retirement programs with criteria that must be fulfilled for retirement income lead one to surmise that retirement is the point where age and/or diminishing skill becomes a detriment to profession. And in considering the various reasons people give for working, perhaps retirement is attained when the aforementioned attributes such as emotional, social, purpose and identity are completely fulfilled or exhausted. Whatever the interpretation of retirement, it would appear that the meaning is centered round severed occupation due to or perhaps in conjunction with advancing age, diminishing skill and/or interest, or a combination thereof. Consequently, much of the ambiguity that resides around why we work and its implication for retirement may explain why many households fail to properly prepare for retirement and are seemingly forced into it due to the accords of another.
INTRODUCTION

There has been a progression of work by economists on the relationship between income, consumption and saving. The relationship is perhaps best summarized with the statement “households receive income from their labor and their ownership of capital, pay taxes to the government, and then decide how much of their after-tax income to consume and how much to save.” Household income minus taxes is defined by economists as disposable income where consumption is seen as a percentage of disposable income and represented by the function $C = C(Y)$, where $C$ and $Y$ represent consumption and disposable income, respectively.\(^3\) Intuitively, saving ($S$) is that which remains of disposable income after consumption or $S = Y - C$, thereby implying that, that which is not consumed must therefore be saved.

The common conjecture amongst classical economists is the prevailing interest rate influenced saving (and thus, consumption) in that the higher the interest rate, the higher the saving rate (relative to the consumption rate). In the General Theory, John

\(^3\) Household income “$Y$” minus taxes “$T$” is disposable income and is equivalent to the economic output. Household consumption “$C$” is said to comprise the greater portion of GDP which is roughly two-thirds of the economy. The consumption function is defined by $C = C(Y - T)$ which explains the relationship between consumption and disposable income.
Maynard Keynes rebuffed the purported relationship between saving and interest rate and offered instead that saving is a luxury primarily engaged by the affluent and thus influenced by income level. Keynes posited that the average propensity to consume, or the ratio of consumption to income, falls as income rises which supported his premise that the rich saved a greater percentage of their income. In addition, he noted that consumption, and therefore saving, are derivatives of current disposable income. Given Keynes’ average propensity to consume hypothesis, economists surmised that higher saving would inevitably lead to “secular-stagnation” in an environment of rising income levels. Following World War II, economists observed a drastic increase in household income, however, the elevated income levels were not accompanied by an increase in the saving rate. Furthermore, this observation was supported by Nobel Prize economist Simon Kuznets whose analysis of roughly seventy years of historical aggregate data showed the ratio of consumption to income remained stable over the timeframe under purview in light of rising income levels. Kuznets’ findings confirmed the previous observation and led economists to refute Keynes’ average propensity to consume hypothesis (over the long run), given the deduction that if saving is the reciprocal of consumption (disposable income less consumption) then saving too had remained stagnant and unaffected by increases in income levels.

Keynes’ hypothesis that consumption is derived from current disposable income contrasted with that of Irving Fisher, who conjectured that households rather are forward-looking entities that take into account the tradeoff between current and future consumption with the acknowledgement that more consumption today comes at the
expense of tomorrow’s consumption. Fisher posited that the household’s intertemporal choices around consumption and saving are made instead with consideration of current and future income expectation. He illustrated this with the position that households require income for consumption across two periods which he dubbed period one and period two. He referred to period one as the time of youth, undoubtedly referring to the household’s working years, and period two as the time of old age or the household’s retirement years. Fisher identified the saving function for period one as \( S = f (\text{Disposable Income, Consumption}) \) and posited that there is no saving in period two because retirement is followed by death. He noted that because households borrow and save, consumption can be greater or less than income due to current and future income expectation. Consequently, the variable \( S \) can represent either saving or borrowing in that when consumption in period one is less than disposable income, the household is saving and when consumption in period one is greater than disposable income, the household is borrowing. Household income in period two was said to be derived from capital stock or cumulative savings plus interest and therefore consumption during this period is the function of savings and interest.

Franco Modigliani refurbished Fisher’s intertemporal budget hypothesis by adding that because income varies over the household’s life cycle, saving permits the household to spread or smooth consumption across both periods. Additionally, he maintained that consumption was a function of income and wealth which supports Keynes constant average propensity to consume theory in the long run, however, refuting Keynes’ proclamation that the average saving rate rises with ever higher income over the
short run. Milton Friedman’s permanent income hypothesis complemented Modigliani’s life cycle hypothesis by suggesting that consumption is spread over the household life cycle based on lifetime income expectations. Friedman noted that in addition to permanent income expectations, households also have transitory income which he defined as stochastic shocks or disruptions to permanent (expected) income. Albeit negligible in explaining household consumption decisions, transitory income is perhaps useful in influencing saving and borrowing decisions to temper income aberrations. In an effort to explain how households go about making consumption decisions, Friedman’s permanent income hypothesis stood in stark contrast with Keynes’ current income hypothesis. Lastly, Robert Hall conjectured that households have rational expectations about the future and these expectations coupled with Friedman’s permanent income hypothesis help mold consumption behaviors which are unpredictable to the extent that changes in permanent income must be unpredictable. The general consensus among neoclassical economists then is households are rational and forward-looking entities that make intertemporal choices around consumption and saving based on permanent income expectation.4

4 Keynesian economists posit that consumption and saving are influenced by current disposable income whereby the higher the level, the greater the propensity to save and the greater the average saving rate relative to the consumption rate. In contrast, neoclassical economists proffer that households are rational and forward-looking entities that make consumption (and therefore saving) decisions based on current and future disposable income expectations. In addition, transitory income or hiccups in expected income, compels households to save and borrow to smooth lifetime consumption.
THE SAVING CONUNDRUM

It has been seen that the components of the household intertemporal equation are disposable income (Y), consumption (C), and saving (S) where \( Y = C + S \). It is readily extrapolated from this rudimentary equation that the portion of disposable income which is not saved is consumed (\( C = Y - S \)), and that which is not consumed is saved (\( S = Y - C \)). The household average saving (S) rate in the U.S. has trended downward for more than forty years (averaging 6% from 1947 through 1982; 4.8% from 1983-1999; and 1.3% from 2000 through 2004) to the point of significantly trailing other developed countries.\(^5\) There are two contrasting opinions as to why this has occurred. In one camp the primary culprit is said to be income-related (Y) where the change in income has lagged the change in inflation. In the other, it is believed to be consumption-related (C) due to hyperbolic discounting.

Before 1947, changes in household income were tracked on a nominal basis relative to productivity. The Census Bureau in 1947 began tracking household income changes adjusted for inflation whereby real disposable income measured nominal

\(^5\) The saving rate in the U.S. has been trending downward for several decades and is currently among the lowest of any developed country.
changes relative to purchasing power. Households (the middle class in general) realized a consistent increase in real disposable income from 1947 to around 1973 where thereafter, income changes began to lag the inflation rate. The decline in real disposable income since the early 1970’s is considered by some to be the primary reason for the continued decline in the saving rate. There are various reasons offered. One reason for stagnant incomes is the proliferation of free trade shortly after 1971 which reduced domestic manufacturing and weakened unions. Another reason offered is technology and immigration dampened incomes (by reducing the need for employment at a time when more people needed employment). Real income from 1970 to 1996 dropped roughly 14% while productivity, as measured by gross domestic product, increased during the same period from $3.8 trillion to $9.8 trillion by the year 2000. Although real income temporarily reversed course during the economic boom of the late 1990’s (then reverting back to a negative trajectory following this dot.com era), saving continued along its diminishing path. These proponents argue that the decline in real income or purchasing power equates to an incline in consumption costs, which has required households to use greater portions of disposable income, at the expense of saving, to maintain consumption levels.

Countering this position, the average real consumption per capita during this same period (1970 through 1996) increased 66% which begs the question “how can the purchasing power of household earnings decline by 14% while consumption increases by 66%?” One explanation is that the proliferation of pension income (non-wage income and

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6 Real income has lagged productivity which may indicate that the household is deprived full participation in the spoils of prosperity it helped produce.
bonuses are excluded from real disposable income) and company-provided health insurance are primary contributors. Other explanations offered are more women entering the labor force; the reduction in the number of household dependents; and a declining saving rate (since the number of wage earners, dependents, and saving are not factored into real wages). In taking these explanations into account, real wages over this timeframe would have actually increased 9% which still does not offset the 66% spike in consumption.\(^7\)

Proponents of consumption-related factors argue that the decline in the saving rate has less to do with real income and more to do with the wealth effect and/or the lack of self-control. They contend that when assets increase in value (i.e. investments and housing), households feel wealthier and are prone to increase consumption and curtail saving. Countering this explanation, when asset values drastically declined in 2008, household saving did not reverse course. Another explanation is that in an environment of rising productivity, households acquire an elevated opinion around permanent income expectation and tend to cut back on saving with the intention of reinstating it at some later date. A third hypothesis is financial institutions relaxed liquidity constraints allowing greater access to borrowed funds to augment consumption.\(^8\) The more encompassing explanation of all is the lack of self-control in which behavior economists call “hyperbolic discounting.” Households that exercise hyperbolic discounting are those

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7 Adding back pension, company provided health care, and other household benefits failed to account for the drastic increase in consumption over changes in real wages for this time period.

8 This argument posits that the lack of fiscal discipline has played a large role in elevating consumption over the need to save.
with a penchant for instant gratification because they discount future consumption in favor of current consumption which quells the portion of disposable income that should be allocated to saving.

The economic environment since the early seventies has run the gauntlet in terms of fluctuations in inflation, interest rates, and financial markets and nothing has stemmed the plight of saving. It would appear that neither real wages nor the wealth effect taken exclusively seems to hold much merit in explaining the feeble saving rate. Stagnant real wages seems less implausible given households have the option of substitution. Research conducted with a panel of households found that “the decline in real wages that began in 1973 suggests a compelling explanation for low wealth levels: individuals were surprised by low earnings growth and thus under-saved relative to their lifetime incomes.” The research went on to conclude that “… the hypothesis fits the data for those with extreme outcomes but does not explain large wealth differences for individuals on average.”

The ongoing consternation around the primary determinants of the low saving rate continues to befuddle economists. Empirical evidence suggests that household saving is not influenced by interest rate nor is it a luxury restricted to high income as the average propensity to consume is unchanged across income levels. One might conjecture that consumption, and therefore saving, is influenced by current income; permanent income expectation; transitory income; or some combination thereof, across household life cycles. If such inferences hold merit, then we might further hypothesize that people work primarily for income to fund current consumption and to fund savings for future

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9 These researchers found it inconclusive that low saving is a derivative of low income given known consumption relative to income path. In addition, unrealized income expectation caused a shortfall in savings. However, income alone did not explain differences in wealth.
consumption when work is no longer feasible. If this hypothesis proves feasible then it begs the question, why do so many households allocate so little income to saving? A survey conducted in 1997 found that roughly 76% of respondents admitted to inadequately saving for retirement. In addition, 55% of the respondents nearing retirement admitted being behind in saving compared to only 6% who believed to be ahead. When respondents were asked what percentage of their income they should be saving in comparison to the percentage being saved, the shortfall was roughly 10%.

Although the growth in real income has lagged inflation over the last 40 years, the report suggested that when it comes to consumption, U. S. households have a self-control problem which negatively impacts their ability to save. The survey found that although households generally have good intentions to delay gratification for the purpose of attaining a long term goal, the short term preference for instant gratification generally derails such aspirations. The confluence of time preference where short term impatience trumps long term responsibilities can cause households to make consumption decisions in favor of utilities derived within the immediate future. In short, households with hyperbolic discounting functions will permit short term behavior to derail long term plans.\textsuperscript{10} Such lack of discipline is evident in the various retirement plans with “locked up” forms of saving whereby enrollment sometimes must be forced (automatic) and penalties must be assessed (for individuals under 59.5 years of age) to discourage early withdrawal.

\textsuperscript{10} One primary culprit to the anemic saving rate is said to be the lack of discipline or self-control which induces many households into capitulating long term goals and aspirations to short term euphoria.
The professed lack of attention to saving for period two is disconcerting and perhaps lends to the problem of deciphering how households go about determining what proportion of disposable income to consume in period one and what proportion to set aside for consumption in period two. As consumption is a necessity for life, one would presume that consumption in period one is of no lesser or greater importance than consumption in period two. The case could be made that securing consumption requirements in period two may be of greater importance given the diminished opportunities for labor income due to the loss of strong hands. The admittedly low saving rate for a large percentage of households is undoubtedly an indication that consumption is excessively sensitive to income in that the percentage change in disposable income induces a corresponding and reciprocal change in consumption. There may be a host of reasons, or combination of reasons, having merit in deciphering this seemingly high correlation between income and consumption, such as:

- the uncertainty of health and/or long life in period two may bring about the compulsion for immediate gratification therefore giving less importance to tomorrow.
- the emergence of social programs, such as social security and defined benefit plans, may have hoodwinked households into believing that consumption in period two is the responsibility of governments and businesses.
- the social pressure for high income may be amplified through consumption as brandished success.
the conspicuous nature of consumption may be coveted and bring about impulsive or irrational behaviors.

the failure to increase saving commensurate with increases in income may lead to a dwindling saving rate across the household life cycle spectrum.

over-inflated expectation regarding permanent income may bring about the intention of restituting saving at some later date.

unbridled self-indulgence in period one may lend to prolonged liquidity constraints at the peril of saving.

Although households are said to be rational and forward-looking, many are influenced and/or perpetually succumb to the onslaught of exogenous messages, images and innuendos to consume. Additionally, efforts to foment saving can be ambiguous especially in terms of the amount of savings required to adequately fund consumption in period two. Consequently, many hyperbolic households err in under-saving for period two at the hands of fully or over-consuming (borrowing) in period one thereby constricting resources that should be earmarked for consumption later on.

The household intertemporal budget decision then may be influenced by the exogenous pressure to consume coupled with the economic discord around the amount of cumulative savings required to fund consumption during period two. In the absence of conformity and/or a reliable means of ascertaining the minimal cumulative savings required for period two (which we will later see is a condition for wealth given retirement can come about involuntarily) may have skewed the household’s intertemporal budget
decision disproportionately in favor of consumption. Given the proper mechanism to
gauge the household’s proximity to wealth, households may calibrate intertemporal
decisions and behaviors to that end. Two complimentary economic metrics will be
introduced to help households determine the minimal amount of cumulative savings
required for wealth and to help households approximate proximity to this savings
threshold. Additionally, an economic-based quantitative description of wealth, as it
relates to retirement, will be offered with implications for period two.

The first of the two metrics is Balanced Income (BI) which is introduced here as a
microeconomic metric designed to identify the minimal level of capital stock that is
required for wealth. Balanced Income is attained when the income stream generated from
capital reaches parity or equilibrium with the income stream generated from labor (and
borrowing) without compromising capital stock. The annualized economic cost of
household consumption is used as a proxy for labor income/borrowing whereas the
annualized interest on savings proxies for capital income to determine this minimal level
of capital stock requirement.

Because the lack of self-control is prevalent in many households, consumption and
disposable income levels more often than not are one in the same. In utilizing
consumption as a proxy for labor income, the confluence of capital income (BI) means
that a lesser amount of savings is required for households that save, by the average saving
amount (because consumption cost is less than disposable income), and a greater amount
of savings is required for households that borrow, by the average borrowing amount
(because consumption cost is greater than disposable income). Hence, anchoring
Balanced Income to consumption instead of labor income requires households with hyperbolic discounting functions to set aside greater capital stock for wealth. This ensures that savings will be of sufficient supply to fund the household’s current consumption demands which may entail disposable income and borrowing. As the household’s consumption demands change en route to wealth, so will its minimal capital stock requirement. Because Balanced Income is acquired at the confluence of incomes, it represents the initial offering of financial liberation from the necessity of labor to fund consumption and is therefore the point whereby consumption can be sustained through capital.

The Household Dependency Index (HDI) is proffered as the corollary microeconomic metric designed to function in tandem with Balanced Income to help households gauge proximity to the minimal savings required for wealth. The Household Dependency Index then is analogous with the journey to wealth as it gauges the household’s waypoint en route to BI which in turn measures the household’s reliance or “dependency” on labor for consumption across period one. The HDI component measures the household’s current consumption requirements relative to BI whereby the greater the disparity between the two, the greater the dependency on labor to fund consumption, whereas the smaller the disparity, the lesser the dependence on labor to fund consumption. As to be expected, the HDI metric will teeter-totter about the BI metric across the household life cycle in part due to fluctuations in capital markets, which will offer the household the opportunity to recalibrate saving allocation accordingly with respect to its life cycle stage and perceived risk tolerance, and in part due to changes in consumption behaviors. As an example,
capital stock may decrease when capital markets decline which will precipitate a corresponding rise in the HDI metric indicating a greater dependency on labor (income) for consumption. The decline in cumulative savings may in turn induce households to consume less (because they feel poorer) and save more to re-establish the HDI waypoint relative to BI based on the household’s life cycle stage. Conversely, cumulative savings may increase during capital markets ascension whereby the smaller HDI metric will forebode a lesser dependence on labor for consumption. The rise in capital stock may induce households to consume more (because they feel wealthier) at the expense of increasing the saving rate (which is consistent with the average propensity to consume hypothesis). The concern here is a drastic upswing in capital markets can give the false reading that the minimum required savings goal has been reached and may induce households to prematurely contemplate severing labor. For this reason, households are advised to buffer Balanced Income as a precaution against adverse changes in consumption and/or markets.

The rudimentary relationship between HDI and BI, as they pertain to wealth, is the HDI metric represents the condition whereby capital income is less than labor income which forebodes consumption deprivation in the event of unplanned severed labor (involuntary retirement) whereas BI is the condition where capital income attains equilibrium with labor income which portends steady-state consumption given unplanned severed labor. The condition where capital income exceeds labor income is buffered or precautionary wealth which suggests consumption sustainability in the event of adverse changes in consumption and/or markets. Therefore, Balanced Income and the Household
Dependency Index equip households with real-time capital stock requirements that is apropos to consumption demands with discernable waypoints en route to the savings goal. They also offer households the opportunity to better calibrate consumption and saving decisions in accordance with wealth aspirations and timeframes which in turn reduces the probability of being caught unprepared given involuntary retirement.
THESIS

There has been a notable change in the symbiotic relationship between households and employers as it relates to retirement over the past few generations. It was not uncommon at one time for a household to work forty years for a single employer and for employers to provide lifetime retirement benefits to households in the form of pension income and health insurance. The household/employer alliance over time weakened whereby the households still sought roughly forty years of labor to prepare for retirement, however, ebbing loyalty resulted in transient allegiance with several employers. Employers responded by gradually transferring retirement responsibilities to households in the form of company matched saving plans in place of diminished pension plans and shared-cost retirement health insurance coverage. The relationship today has continued along this estranged trajectory where households are evermore prone to align with different employers over their forty-year work horizon. Employers have nearly consigned all retirement responsibilities to households as can be seen in paltry matched saving plans in place of nearly defunct pension plans and foregone company sponsored retirement health insurance plans in light of a precarious social security environment. Technology in many cases has permitted employers to reduce labor cost through labor force reduction.
which has deprived a growing legion of households the opportunity to acquire forty years of employment and/or gainful employment (where income levels afford the opportunity to save) to prepare for own-accord retirement. Empirical evidence suggests that late stage households in particular are vulnerable to employment displacement due to advancing age, higher income and/or diminishing skills which can encumber the probability of finding comparative work/income and can result in an untimely retirement due to the accords of another. Contracting period one offers unique challenges for households in terms of acquiring the necessary provisions for wealth.

In contrast to determining savings for involuntary retirement, there are various methods available that project the amount of savings required for voluntary retirement. In many cases, explanations as to how these savings figures are derived and why they are germane are typically opaque. These methods generally employ limited “individual” information such as age; current saving rate; and current savings amount in addition to obscure data such as the anticipated year of retirement to derive these saving figures. The benefit of providing projected savings information as such is it gives the individual a target to pursue and the incentive to start saving to that end whereas the drawback is the general assumption that the projected values are material to the household and dynamic across the household life cycle. Perhaps the most pernicious assumption rooted in these methods has to do with the “anticipated year of retirement” requirement which portends the household is afforded the luxury of retiring on its own accord.

When the household commences with saving, it has in essence embarked upon a journey for which wealth is the targeted destination. As in setting-out on any destination,
there are implicit benefits in starting early and staying the course because given the proper attention wealth can transcend age and income level. It is suggested that acquiring retirement eligibility without first having reached Balanced Income potentially subjects the household to the disdained bondage of labor and/or the benevolence of society. It is necessary then that households jettison the belief that the provisions for retirement are obtained through enduring forty years of work and/or workplace. The household instead can redirect efforts from accumulating time spent performing labor to accumulating savings while performing labor. Because retirement (barring death) is a certainty of life, and may not occur at one’s own discretion, households should give attention to the notions of Balanced Income and the Household Dependency Index to avoid being caught unprepared. In doing so, it is possible for households to acquire retirement wealth long before social security and pension eligibility. The heresy that people work to attain Balanced Income rather than retirement eligibility is offered whereby wealth/retirement can be achieved at ones’ own accord, at any age and at mostly any income level. Furthermore, a more succinct definition of retirement is offered as the point of complete liberation from the necessity of labor to fund consumption. And because Balanced Income is proffered as the point at which capital income reaches parity with labor income, wealth then can be viewed as the point at which labor is traded for income as a matter of choice rather than necessity.

It is posited that households have life cycle stages that are generally dynamic to age and often life events which affects consumption demands in period one and can transmute to consumption demands in period two. When individual (in lieu of household)
and/or obscure data are used to make blanketed projections around required voluntary retirement savings, the resulting value can be overstated in the case where there is another household head with greater savings and/or lesser consumption demands or understated in the case where the other household head has little or no savings and/or greater consumption demands. In addition to the possibility of a truncated work period, the projected savings amount can be highly suspect when consumption and markets (which are unpredictable) are not factored into the equation. Consequently, the risk of providing a discreet cumulative savings value at the individual level; that is apropos across the household life cycle spectrum; with no consideration for consumption requirements; shrouded with obscure future tenure information; and touted to be of sufficient quantity for voluntary retirement is seemingly misleading as there are a myriad of economic moving parts that can lend to the precariousness in calculating these values. The case can be made that the earlier the household life cycle stage, the lesser the credibility that can be placed on these values due to unforeseen life events.

Balanced Income in contrast is not a projected retirement savings value derived from individual data or obscure assumptions that can be riddled with uncertainties. It is instead a real-time assessment of the household intertemporal budget relative to savings to determine if equilibrium has been reached between key economic factors foreboding retirement consideration. It is important to note that Balanced Income and retirement are not synonymous nor are they interchangeable in meaning or implication in that attaining one does not ensure or bring about the other. One stark distinction is retirement, barring death, is inevitable whereas Balanced Income is not. Consequently, retirement eligibility
can be reached without having reached Balanced Income and Balanced Income can be reached without having reached retirement eligibility. Retiring without having first reached Balanced Income can be detrimental by subjecting households to consumption deprivation and the consequential dependence upon the mercy of others. Balanced Income offers the possibility of steady-state consumption at retirement whereas retirement eligibility does not. One can surmise from the discussion thus far that it is not retirement eligibility that is sought, rather Balanced Income because it portends retirement-readiness and offers the household the luxury of choosing retirement rather than retirement choosing the household. It is necessary that households dispel the misguided belief that reaching retirement is simply a matter of spending an inordinate amount of time performing labor, rather, the only prerequisite to retirement is it must be preceded by Balanced Income. Procuring steady-state consumption at retirement requires the acknowledgement that part of labor income earned today must be earmarked and deployed to saving for the purpose of garnering a sufficient capital income stream tomorrow. And given that many households are dissatisfied with their work and/or place of work, the impetus to allocate a portion of labor income to saving in pursuit of Balanced Income, sooner rather than later, should be welcomed.

The purpose of this analysis (thesis) is to help households determine the threshold for wealth for whatever reason – early retirement; involuntary retirement readiness; sense of security; legacy ambitions; etc. And when savings fall short of this minimal requirement, the ancillary purpose of this thesis is to help households gauge dependency on labor for consumption which may in turn influence intertemporal budgeting decisions.
When savings exceeds this minimal requirement, households have buffered wealth which is a necessary precaution against the possible retrenchment of labor dependency.

Balanced Income is thought to provide a more accurate assessment of the savings requirement for two primary reasons – first, the savings requirement is dynamic because consumption (which is expected to become more subdued as households near retirement) and markets are unpredictable; and secondly, it dispenses with the uncertainties of unforeseen life events. Although Balanced Income and the Household Dependency Index have practical implications for households of all life cycle stages, they are particularly germane for late life cycle stage households whom are more susceptible to the risk of an untimely retirement, underemployment, and more inclined to ask if enough has been saved to retire.

Balanced Income is offered as a tool for addressing the aforementioned questions by utilizing the household’s current consumption requirements as a proxy for wealth thereby deriving the minimal savings that is necessary to sustain lifestyle in the absence of labor. When current savings are insufficient to sustain consumption, the Household Dependency Index, relative to Balanced Income, is designed to help households gauge dependency on labor income and take the necessary action to close the gap. As will be seen, exceeding the minimal requirement for wealth is a necessary precaution in helping assuage adverse changes in consumption and markets during retirement. It can be seen that the later the household life cycle stage or the closer the household is to retirement, the greater will be the clarity and precision of these metrics. Alternatively, the earlier the household life cycle stage, the greater will be the HDI component which may compel
these households to save more. Deriving the minimum required savings amount in this manner reduces uncertainties (like anticipated retirement date and life events) and ensures cumulative savings stays “on balance,” at minimum, with consumption requirements especially for late stage households. The criterion for “balanced” is capital income must come into parity with disposable labor income (and borrowing) without compromising savings which means the redemption rate on savings must be in parity with the after-tax rate of return on savings. The criterion that the confluence of incomes must not compromise capital stock is in essence the crux of wealth as it must be sustaining.

The primary benefit in introducing these metrics is to encourage households to save for the possibility of wealth which can be acquired at mostly any income level and life cycle stage. They are also to encourage saving in an effort to attenuate consumption deprivation given the hapless event of retiring due to the accords of another. Lastly, they are useful in helping households navigate based on wealth and/or retirement aspirations and alert when the desired level of capital stock has been reached. Because the broader notion of wealth, which is often held in the form of entitlements (such as social security) or defined benefit plans (such as pensions), may not influence the household intertemporal budget decision, they will not be entertained in these analyses. Entitlement and defined benefit savings will also be excluded because they are often imputed or estimated from secondary sources which are supplemental to the household’s saving
efforts at best. The focus instead will be on the savings required for wealth (in case of involuntary retirement) with the reliance on introspection, observation, and conjecture about household income, consumption and saving patterns across household life cycle stages therein.

It is posited that businesses are generally more efficient than households at managing finite resources for the purpose of a financial goal. However, households are believed to have certain similarities to businesses which may prove beneficial in indoctrinating the idea of saving for the purpose of wealth. It is offered that there are two primary similarities between households and businesses - they both have life cycle stages which influence decisions relevant to financial goals and they both have budget constraints which require (or should require) financial oversight in terms of tracking and measuring progress relative to financial goals. It is surmised with relative certainty that all households have life cycle stages and that all households will eventually retire, however, not all households establish budgets and/or financial documents in preparation for this eventuality. It will be maintained that the household intertemporal budget in period one is disproportionately skewed toward consumption for two primary reasons - permanent income expectation (which may lead households to believe they will retire on their own accord) and the discord around the amount of savings required for wealth/retirement.

11 Households should not factor in social security and/or pension benefits in their intertemporal budget decisions especially given the precarious state of entitlement programs and the diminishing pool of employers offering defined benefit plans.
Balanced Income and the Household Dependency Index may remove some of the ambiguity from the saving conundrum and help households make better decisions in allocating labor income. They may help households better understand how consumption and saving decisions in period one forebodes consumption and savings requirements in period two which may induce households to calibrate labor income allocation mindful of retirement. The unfortunate circumstance is financial documents are required tools of the trade because they are instrumental in measuring the households’ dependency on labor (HDI); for ascertaining when labor dependency has been neutralized (BI); and for determining when labor dependency can be severed (precautionary wealth). Consequently, these metrics are offered as an ample improvement over the arbitrary and static saving projections currently available for voluntary retirement because they are real-time, dynamically derived measurements proffering savings for period two based on consumption established up to the point of retirement.

In summary, Balanced Income utilizes consumption as the harbinger for labor income (and borrowing) to quantify the minimal savings required for wealth and/or forced retirement. The Household Dependency Index measures the household’s dependency on labor income (and borrowed funds) based on the household’s on-hand savings relative to the minimal required savings for sustained consumption. Lastly, savings in excess of the minimal requirement serves as the basis for buffering wealth which may be required to sustain consumption given unforeseen changes in consumption and/or markets. It is important to note that Balanced Income is the minimal savings required “at” retirement and not "in" retirement because the savings required “in”
retirement is indeterminate. There are four primary reasons why it is impossible to know the exact amount of savings that will be needed "in" retirement - the uncertainty of the length of life; the uncertainty of life events; the uncertainty of financial markets; and the uncertainty of tax levels. For these reasons, the household should engage in precautionary saving to buffer wealth and lessen the impact of and/or circumvent altogether the possibility of uncertainties eroding the savings base to the point of compromising capital stock and sustained consumption. Hence, Balanced Income and the Household Dependency Index provide the necessary thumbnail information required to compel households to mold intertemporal decisions in accordance with wealth aspirations and timelines.
HOUSEHOLDS & BUSINESSES

Understanding the primary commonalities between households and businesses is beneficial to households in pursuing a financial goal. Before expounding on these similarities, it is equally important to understand the primary differences. One primary difference between the two entities is the household is said to have ephemeral existence whereas a business is purported to have the potential for eternal life. Although this statement is theoretically correct, eternal life is no guarantee for businesses as they too are subject to insolvency when resources (human and/or capital) are improperly managed. Generally speaking, a business has the potential for eternal life because it is not subjected to the ravages of linear time that are imposed on the household. In essence, business sustainability has less to do with how long it has been around and more to do with how long its product/service has been around even though it is rare indeed for a business to have a product or service that is always in vogue. The business longevity is influenced in part by its product market saturation rate and in part by its product obsolescent rate. In an effort to stave off obsolescence to prolong life, a business has a plethora of weapons at its disposal such as introducing a new product to the market; introducing its product to a new market; unveiling new uses for its product; and/or recalibrating its product to meet
changing taste or preference. Consequently, the business product has life cycle stages and the longevity of the business is directly dependent upon the prosperity of its product. It is hypothesized that there exists perfect correlation between the business life cycle and product life cycle and therefore businesses enjoy long life by extending the life cycle stages of their products. Achieving this feat is part diligence in remaining on the cutting edge of technological advancements, marketing and/or constricting competition, developing new products, and part luck by having a product with few substitutions, difficult to improve upon and/or slow changes in consumer preference. In contrast, businesses that fail to properly market their product, stay abreast of technological changes or stay ahead of changing taste, risk product displacement and therefore limited life. Consequently, businesses expend a great deal of resources (R&D) keeping its product on the forefront through enhancements, extensions and exposure to markets.

The distinction that the household has limited life is also a matter of perspective and debate. To transcend time, businesses must continually deploy innovative techniques to refine, reinvent, readapt, find new markets, and/or uses for its products or services in light of ever-changing taste and/or preference. The household too has at its disposal one method of extending life, or lineage if you will, beyond the confines of its dwelling. The household’s interest or ownership in a business, which has already been purported to have the potential for eternal life, can be structured to pass through to benefit future generations. The transition of wealth is evidenced in intangible assets but also tangible assets such as property that can be bequeathed to heirs for the purpose of generating capital income for consumption through the ages. Although the transition of wealth to
progenies may be construed as a method of prolonging life, the transaction does not offer
the potential of eternal life for the originating household. Therefore, businesses exhibit
traits of inorganic life because the business establishment does not cease to exist when
corporate heads perish whereas the household exhibits organic life because it does cease
to exist when household heads perish.

Households also differ from businesses in that the investing public cannot take a
financial interest in its economic affairs. Public interest in a business generally takes the
form of an “owner” (such as equities) or “loaner” (such as bonds) which induces due
diligence, accountability and disclosure concerning financial statements and financial
objectives. Although lending institutions can take a collateralized interest in household
resources, they generally do not require ongoing financial disclosure or the management
thereof. There are pros and cons associated with the public’s inability to take an
economic interest in households. On the plus side, households are not required to produce
and unveil financial documents and are at liberty to manage household resources free of
scrutiny from the investing public. On the negative side, the lack of objective economic
jurisprudence over the household’s financial affairs means that due diligence befalls
household heads who may lack the sophistication to achieve economic objectives.

One last example of a difference between the household and business has to do
with the legal and tax perspective whereby the business entity, depending on registration,
is considered an individual whereas the household is not. The business entity is therefore
a corporate citizen that generates earnings and pays taxes on earnings. In contrast, the
household entity is not considered an individual, rather, household members are individuals, regardless of domiciliation arrangement, who generate income and pay taxes.

There are more similarities between households and businesses than there are differences. Households account for the majority of all economic activity and they have the same economic interest as businesses, which is the creation of wealth. Households and businesses alike are income-generating, consumption-driven, saving-conduced, tax-paying entities that are the lifeblood of the economic engine and the catalyst for economic prosperity. They seek to create and maximize wealth by increasing assets and decreasing liabilities, which is a phenomenon measured by net worth. They are both autocratic organizations, with corporate heads and household heads, responsible for navigating the economic landscape in search of economic prosperity for the benefit of their constituents. Needless to say, both institutions play host to respective employees and dependents who are financially reliant for sustenance, security and a sense of self. In return, both institutions depend on employees and dependents to perform certain functions which are beneficial to the overall health of the entities. In this regard, both entities make use of a reward and punishment system as a means to gain buy-in and to maintain order and decorum. In essence, both entities foster an environment for underlings to grow, develop, and most importantly eventually attain financial independence for themselves.

Perhaps the most intriguing commonality is both institutions are intricately linked and completely dependent upon each other for sole survival. For example, the business entity depends upon the household for labor to produce and promote its products and
services and in return it provides the household with income to consume these products and services. The household in turn depends upon the business for labor which provides purpose, meaning, identity and income which is used to consume said products and services. In addition, businesses depend on households for capital resources (i.e. to purchase its stocks and bonds) and households depend on businesses for capital income (i.e. interest on stocks and bonds). It is indeed a mutually beneficial arrangement as both entities depend on each other to generate income for current consumption and saving to create wealth for future consumption which establishes a sense of well-being for themselves and their respective constituents alike.

As it has long been established that businesses have life cycle stages, it stands to reason that households too must have life cycle stages. It has been stated that businesses are least influenced by linear time, therefore, their life cycle can be of varying lengths as influenced by their product(s) life cycle stage. In contrast, limited life gives distinction to identifying succinct household life cycle stages based on timelines and life events anticipated within and across each stage. If this conjecture has merit, then the argument can be made that it matters a great deal how economic affairs are conducted within each stage of the household life cycle as the efficient use of scarce resources (i.e. time and money) across these stages is paramount to achieving Balanced Income. Therefore, properly discerning business life cycle stages has far reaching wealth implications for households since they too have life cycle stages as there are critical lessons offered by businesses on economic matters at each stage of the cycle.
Discerning the similarities and differences between these entities offer many lessons to households in terms of pursuing financial goals. For example, businesses generally borrow funds at the onset of existence with the intention of earning a rate of return (interest) that is greater than the cost of financing the debt. In contrast the household, at any stage of the life cycle, rarely uses debt in this fashion. Rather, it typically borrows to augment income for the purpose of optimizing consumption (moving to a higher indifference curve) or smoothing consumption (due to transitory income). Also, businesses devise budgets, set financial goals based on life cycle stage and craft financial documents to track and measure results against these goals. Households will generally set budgets and establish financial goals but are less prone to follow through or develop any semblance of financial documents to track and measure results. The primary focus of the business is to deploy cash (saving) to strengthen its balance sheet for the benefit of its owners and loaners. Although households do not have owners, they generally have loaners; balance sheets; and household members whose economic interest is dependent upon the strength of the household balance sheet. Therefore, the process of deploying saving to strengthen the balance sheet builds wealth for future consumption for both entities alike. The household however generally misconstrues positive cash flow (disposable income remaining after consumption) as the opportunity to optimize current consumption rather than the opportunity to save for future consumption. Such misinterpretation not only hampers the level of capital stock (savings) and fritters the opportunity for wealth, it elevates the minimal requirement.
One final takeaway is businesses exhibit dynamic economic behavior that is appropriate to life cycle stages regarding revenues (income) and expenditures (consumption). Unless altered by some life event, household economic behavior typically remains static across all life cycle stages thus failing to take advantage of economic opportunities or to circumvent economic threats. Regrettably, the primary focus of households is often to increase income for higher consumption purposes as expenditures are typically dealt with only when they become a detriment to consumption or when wiggle room (as defined by liquidity constraints) is constricted or exhausted. Consequently, critical opportunities to reach Balanced Income generally go unnoticed or are often squandered. In addition, there are important investment (saving) implications for the household in understanding and deciphering business life cycle stages relative to its own. For example, the allocation of household saving to a business in the start-up phase of its life cycle offers the potential for greater returns at higher risks, whereas, a business in the maturity stage of its life cycle may be on the cusp of declining and may not be the safe haven purported – a situation that can expose the household to even greater risk with potentially lower returns than intended. Thus, it is the essence of investing for growth versus income.
It has been stated that businesses have life cycle stages and are more proficient at setting financial goals and managing resources based on these life cycle stages. Financial documents (pro forma) are the primary tools used by businesses to track and measure performance and results against these goals. Given, businesses can serve as an example for households in pursuing financial goals while also navigating discreet and discernable life cycle stages. Although few households craft financial documents to manage resources, doing so is deemed a necessary evil in discerning Balanced Income, the Household Dependency Index and consequently, the point of wealth.

The condition of limited life offers the opportunity to demarcate households into age-based life cycle stages relative to consumption and saving behaviors. The age-based categorization of households is perhaps best seen in the investment community, which is notable for recommending saving products relative to age. As higher risk assets are considered more volatile than lower risk assets, early-stage households are advised to hold a higher percentage of riskier assets because they have the luxury of time to recover from extended or pronounced downturns in capital markets. Late-stage households in contrast are instructed to hold a higher percentage of lower risk assets for the reciprocal
reason. For example, a 30 year-old individual may be advised to hold approximately 30% of household savings in lower risk capital assets (like bonds) with the remaining 70% allocated to higher risk capital assets (like equities) whereas a 70 year old individual might have 70% of savings in low risk assets and 30% in higher risk assets. In devising a retirement savings portfolio based on age, it is readily seen that this system automatically reduces exposure to risk over time as the individual ages (to protect savings) and it supports the premise that households have limited life and life cycle stages that are age-based. Such saving allocation strategies also indicate that in perusing wealth or preparing for retirement, households have unique economic challenges and opportunities at each life cycle stage that must be overcome and availed to achieve Balanced Income.

It was mentioned earlier that the business life cycle is highly correlated to its product life cycle therefore an effective business strategy used to stave off extinction might be to offer multiple products with laddered life cycle stages. However, many businesses will have one flagship product representing the preeminent determinant of the business life cycle stage. In its quest for eternal life, businesses traverse four primary life cycle stages which can be broadly categorized as Emergence, Growth, Maturity, and Decline. There are two endogenous factors that are deemed beneficial in helping to identify these business life cycle stages -- revenue (income) and expenditure (consumption) levels and trends. In addition, time is the exogenous factor proclaiming economic influences on revenues and expenditures which can disrupt level and trend patterns and must be considered during examination. Perhaps one such exogenously based economic phenomenon is the business cycle which is not to be confused with the
business life cycle. A business cycle is a broad or overall shift in economic activity that can disrupt revenues and expenditures for reasons unrelated to its product life cycle. An example of the business cycle dampening effect on revenues is that the demand for a product may fall precipitously due to product substitution in an environment of high inflation or high unemployment whereas a fall in revenues due to a change in the business life cycle may be attributed to the advent of product displacement in an environment of changing consumer taste and/or preference. Discerning the difference is typically intuitive as a business cycle influence may generally induce households to temporarily substitute consumption with lower costs and/or lower quality products due to a change in household wealth whereas a business life cycle influence may induce households to permanently replace consumption with higher costs and/or higher quality products due to a change in wealth. Given the ongoing debate amongst economists around the catalyst for business cycles, no further attention will be given to this discussion other than in discerning business life cycles, it is important to consider the economic climate for the time period in which revenue and expenditure trends are under purview.

The Emergence stage of the business life cycle is in essence the start-up phase. In theory, this phase is generally marked by low revenues (income) relative to high expenditures (consumption) due to low product exposure coupled with a heavy reliance on external financing to get the product off the ground. There are various forms of expenditure financing available to the business such as bank loans, corporate bonds and commercial paper. The business can also make an initial public offering of equities or
take on venture capital resources which provide a position of ownership. Revenue figures are located on the business income statement and can have nomenclatures such as “sales” or the “top line.” Expenditure figures can be readily discerned on the company’s balance sheet and typically presented in two parts – Current Liabilities which are short term consumption costs expected to be paid within one year and Long Term Liabilities which are long term consumption costs expected to be defrayed over a period longer than one year.

During the Growth stage of the business life cycle, expenditures will most likely continue to grow, although at a slower pace than revenue as the product begins to gain a foothold in the marketplace. Generally speaking, increasing revenues can transmute to greater cash flow for businesses which can reduce the need for external financing of expenditures, but in an environment of rapid growth, cash flow can garner higher interest when plowed back into the business and when coupled with leveraged funds it can optimize returns even more so. Therefore, growing expenditures during this life cycle stage is typically an indication that external financing is worthwhile and will continue as long as the business can enjoy a positive carry (a return on borrowed funds that is higher than the cost of the borrowed funds).

The Maturity stage of the business life cycle is often marked by the plateau in revenue and expenditure levels. The revenue growth rate may slow due to market saturation, or near saturation, whereby the primary catalyst for growth may be attributed to rate hikes or mark-ups rather than expanding consumer demands (which can be seen in the number of units sold). When the rate of return that is earned on borrowed funds fall
below the rate being paid on these funds, it is economically prudent to discontinue
borrowing. Consequently, businesses during this stage may scale back financed
expenditures when it is no longer feasible and in some cases may retire expenditures
when it proves too taxing on revenues.

The final stage of the business life cycle is Decline which is marked by falling
revenues coupled with expenditures that can start to rise again as businesses expend an
exorbitant amount of external and internal resources to resuscitate dwindling consumer
demands and/or fend off obsolescence or competition. The higher expenditures are
generally associated with marketing new products, ancillary products, and/or finding new
uses for products. Since the business life cycle is tied to the product life cycle, the
purpose of new product introductions is to recapture revenue growth at or around the
Emergence stage.

Although the household life cycle framework remains the standard way in which
economists think about the intertemporal allocation of resources, it is believed to be at
best a concept that may be useful in developing useful models around consumption and
saving behaviors. Such models are extensive and suggest that households use relevant
information that influences their saving behaviors and decisions around financial goals.\textsuperscript{12}

It has been stated that the certainty of limited life is one characteristic that differentiates
households from businesses and lays the foundation for distinguishing household life
cycle stages. Therefore, revenue (income) and expenditure (consumption) levels and

\textsuperscript{12} There is a deluge of information around household life cycle stages. Although the discreet age categories
are relatively unimportant, the model suggested herein is based on the hypothesis that the household will
spend on average 40 years in the labor force (from the inception of the household to the consensus age of
retirement). These 40 years have been evenly segmented into 10 year intervals for ease of discernment.
trends are relatively inconsequential in identifying household life cycle stages because income levels are perhaps better correlated with education, skill, and industry whereas consumption levels are commensurate with liquidity constraints (income level and borrowing), priorities, and social influences. Empirical evidence suggests that age may be a better criterion for deciphering household life cycle stages in part due to life events which are believed to pattern age somewhat and offer some understanding as to how households go about making intertemporal budget decisions. Limited life then is the result of linear time which imposes a uniform and consistent impact on organic life thereby extending the opportunity to measure households in discreet timeframes. It is a certainty of life that at some point along the time continuum, households will eventually become unwilling or unable to perform labor for income even though consumption requirements will remain firmly intact. In addition, advancing age will bring about social stigma that will curtail the household’s prospects for labor income due to the perception of diminishing skills and/or faculties. Whatever the reason, the progression of time will undoubtedly bring about the need to diminish and eventually cease labor for income.

The prospect of limited life causes households to exhibit peculiar and distinguishable consumption and saving behaviors during period one at different stages along the time continuum. The impetus for these changes in behavior may stem from the ongoing and ever-intensifying tug-of-war between labor and leisure. During the early stages of the household life cycle, the household has progressed a short distance along the time continuum, therefore time is deemed abundant and the impetus is for labor over leisure. In addition, the effort put forth to grow labor income is high (to defray ever
increasing consumption demands) and the time to acquire savings (for future consumption) is deemed abundant which supports the premise that the early stage household places a greater premium on the more scarce resource (money) and devotes its efforts and energies to acquiring it via labor. When the household has progressed farther along the time continuum, consumption demands will often begin to subside as will the need to fund it with ever increasing income. The household’s behavior will tend to shift towards placing a higher premium on leisure where the increasing desire for leisure suggests a diminishing interest in labor. Although difficult to quantify, it is believed that early stage households obtain ever increasing utility from labor (in part due to perceived social status) compliment of ever increasing labor income therefore more labor is pursued. In contrast, late stage households obtain ever increasing utility from capital, because it allows for ever increasing leisure, therefore more leisure is pursued. The presumption is that early stage households are predisposed to labor and gradually gravitate toward leisure due to the progression of time. In short, households initially pursue ever-increasing labor income due to ever-increasing consumption demands however, the affects of linear time on limited life induces households to save for the sole purpose of eventually replacing labor with leisure. Such empirical evidence gives credence to the age-based segmentation of household life cycle stages and is further proof that limited life (time) permits the proliferation of household life cycle stages to be exogenously segmented based on the average age of household heads as the preeminent determinant. The household’s disposition on labor and leisure (behavior) is the endogenous factor that is influenced by the exogenous factor time. There exists a positive
correlation between the exogenous and endogenous factors in that the lesser the household head’s average age (or the greater its time), the greater the impetus is for labor (labor-funded consumption) and the greater the average age (or the lesser the time), the greater the impetus is for leisure (capital-funded consumption). In essence, the household’s desire for leisure increases with advancing age.

The household life cycle stages give rise to the Household Dependency Index which gauges the household’s dependency on labor income for consumption and Balanced Income where capital income engages the household’s dependency on labor for consumption (the minimal point in which labor may be severed). As there is no correlation between life cycle stage and these economic metrics, Balanced Income can be achieved at any life cycle stage and the prospect of wealth can be entertained at any age. It is cautioned though that before embarking upon retirement, consideration must be given to the household’s present life cycle stage relative to its life expectancy as the greater the time, the higher will be the probability that some economic risk and/or event may compromise baseline savings.

The condition of limited life brings about the ability to devise a household life cycle model predicated on the average age of household heads. These household life cycle stages then are germane to period one which is the epoch for saving in preparation for period two. The initial household life cycle stage is presumed to commence after the completion of schooling and/or financial emancipation which is round about 25 years of age and conclude at or around the consensus retirement age of 65 years. It should be noted that these age-based segmentations represent the average age of household heads.
and the nomenclature of household life cycle stages offered here mirrors the business life cycle stages:

- The Emergence Stage: 25 through 34 Years
- The Growth Stage: 35 through 44 Years
- The Maturity Stage: 45 through 54 Years
- The Decline Stage: 55 through 64 Years

Although these proposed life cycle stages are broad generalizations, it is acknowledged that initial households are established before and after the average age of 25; and that households can and do exit the labor force before and after the average age of 65. These generalizations are in no way meant to imply that all households within the same age category fit the same behavioral profile because the endogenous influences (labor and leisure) within each household can be as unique and diverse as the individuals who inhabit them. However, it is important to note that diversification in the endogenous property alone does not absolve households from the ravages of time (the exogenous factor), therefore saving for wealth/retirement consumption is a ubiquitous requirement that is confined to the parameters of period one regardless of the endogenous influence. These primary age categories serve as proxies for time and behavior which compel household heads to give serious consideration to the time-constrained tradeoff between labor and leisure when making intertemporal budget decisions. Furthermore, these age-
based categories give rise to assumptions around household consumption and saving proclivities and the prospect of achieving Balanced Income.

Households trade labor for income for two reasons – to fund current lifestyle and to save to fund future lifestyle. Lifestyle can be defined as a way of living as observed through the household’s consumption decision. Labor income relegated to current lifestyle defrays current consumption and provides a level of immediate utility (gratification) whereas labor income relegated to saving is earmarked for future lifestyle for postponed, delayed, or stored gratification. Lifestyle can be short-lived, long lasting or readily altered to adapt to changes in economic circumstances. Lifestyle is strongly influenced by life events which are intended or unintended disruptions that can have profound economic implications (positive or negative) and include such things as marriages, divorces, childbirths, health issues, and deaths. Even though life events influence lifestyle, lifestyle can bring about life events. The demands of current and future lifestyle directly compete for labor income in that an exorbitant current lifestyle pilfers resources from future lifestyle whereas compulsive saving lowers the standard of living of the household’s current lifestyle. Consequently, lifestyle can either hasten or hinder the trek to Balanced Income with exogenous implications on the household life cycle by making some households eligible for wealth/retirement at the average age of 50 and others ineligible at 70. Because linear time is unaffected by the household’s intertemporal budget decision, it is paramount that households do not protract or nullify the portion of labor income that is earmarked for saving because all households eventually retire.
It is conjectured that the earlier the life cycle stage, the greater is the propensity for labor over leisure. Although the exogenous factor (time) is offered as the primary determinant of life cycle stages, the endogenous factor (behavior) is offered as the primary determinant of reaching Balanced Income which means wealth/retirement eligibility is unrelated to life cycle stage. As an illustration, an early-stage household with a penchant for leisure may relegate an inordinate amount of labor income to saving in anticipation of reaching Balanced Income sooner. Upon reaching Balanced Income, the early stage household has the option of continuing labor to fund consumption through labor income or commencing leisure while funding consumption through capital income (savings). In contrast, the household with unabated consumption demands that allocates little to savings risks never achieving Balanced Income thereby subjecting itself to a prolonged servitude to labor income for consumption. Even though period one lifestyle provides leisure, leisure is always intermittent due to labor demands. In other words, although labor disrupts leisure, it also enhances leisure and in doing so whets the appetite for even more leisure which induces households to allocate more labor income to saving in an effort to reach unabated leisure. Balanced Income, which is the prerequisite for wealth and involuntary retirement, then offers the household the opportunity to indulge in leisure free from the shackles of labor.

The Emergence stage of the household life cycle is comprised of household heads that are embarking upon newfound freedoms, careers and responsibilities. Households in the start-up phase are similar to newly formed businesses in that liquidity is generally constrained (low income and/or high expenditures) due to growing consumption
requirements which brings about the professed inability to save. Labor income is
typically low due to limited tenure and job skills whereas consumption can be high due to
expenditures associated with establishing the household. Consumption can be generally
high for households in this life cycle stage for two primary reasons. First, these
households experience more life events than households in any other life cycle stage and
are least experienced at negotiating the terms of these events. The life events that are
most prevalent during this stage are housing, marriage, transportation and childbirth.
Once these life events are set in motion, the subsequent expenditures can become
essential and can elevate the impetus for labor income to fund ever increasing
consumption demands over saving. Secondly, nascent household heads are in transition
from being recent household dependents who were accustomed to a certain lifestyle
compliments of parents who could better afford to provide a certain standard of living.
The hankering to maintain this standard of living can induce households to engage in
non-essential consumption, which can contribute to the procurement of unnecessary
expenditures further securing consumption’s chokehold on labor income. Engaging in a
lifestyle beyond the household’s means can have dire consequences for subsequent stages
in that expenditures can increase to the point of having a profound and debilitating effect
on labor income by subjecting households to prolonged lapses in saving or even
insolvency. As essential and non-essential consumption can quickly engulf labor income,
procuring a lifestyle absent of saving means labor income must be increased or behavior
must be changed to free up resources later on for saving. Championing the behavior to
allocate a portion of labor income to saving during this stage is paramount and habit
forming. This is no less the case for the behavior of consuming all of labor income as good habits can be just as difficult to break as bad ones. Consequently, this stage of the household life cycle sets the stage for subsequent stages in establishing good saving habits. The advent of life events coupled with the effort to resurrect lifestyle can be taxing on labor income and compel households to take on expenditures to the detriment of saving. The impetus for labor over leisure, which is perhaps strongest during this stage, can cause households to allocate the lion’s share (if not all) of labor income to current lifestyle and relegate little (if any) to future lifestyle thereby jeopardizing the prospect of ever acquiring income parity during this stage.

It can be deduced thus far that households and businesses in the start-up stage are vastly different in their purpose for taking on debt and their use of debt. Although it can be argued that they both take on debt to gain footing, businesses do so primarily to grow revenue for the purpose of building wealth, whereas households (barring the purchase of the primary residence) do so to augment labor income for the purpose of elevating lifestyle which siphons both current and future labor income from saving and retards the potential for building wealth. The opportunities and threats to be availed and overcome during this life cycle stage are monumental and lay the groundwork for impending life cycle stages and the probability of Balanced Income. What makes this stage so precarious is the decision to over-consume is endogenously based and habit forming. Therefore, justifying a lifestyle beyond what is required by life events for prolonged periods can bring about a poor saving habit for an extended period and dampen the possibility of ever reaching Balanced Income in subsequent stages. Households with the potential to achieve
Balanced Income early on are those that resist the temptation to extend and pretend which is exemplified in the endogenous behavior of extending consumption in pretense of having arrived. Embracing the notion that saving can be postponed because of an abundance of time is indeed the dereliction of time which is these households most precious asset for acquiring wealth. When time is mitigated by a high marginal propensity to consume, the opportunity for compounding, which offers the greatest benefit from the least amount of effort, is forever lost.

It may benefit early stage households in grasping the notion that businesses depend on household dependency. The process of selecting and training laborers is often an expensive undertaking and consequently a business investment. Laborers over time gain knowledge and experience from which the return on investment is realized through increased productivity and decreased defects. Retaining trained labor for as long as possible benefits the business by reducing replacement and training costs and thereby augmenting returns. Households that fail to grasp this notion may be at grave risk of accumulating inadequate savings and destined to spend parts of period two performing labor for consumption or eventually forced into retirement due to the accords of another.

The Growth stage of period one is distinguishable by households settling into careers and responsibilities with increased tenure and improved labor skills that are reflected in growing labor income. Household expenditures may also be growing, similar to that for businesses in this stage, (especially in cases where children were produced) but generally at a slower rate than income. The frequency and magnitude of life events during this stage may be diminished compared to the prior stage however household
dependents can bring about new consumption demands on labor income. Household dependents can change lifestyles through the proliferation of their own requirements, interests and/or activities. Also, lifestyle can be altered later on out of the need to seed adolescents impending consumption requirements as they prepare and transition from household dependents to household heads.

Households in this cycle are acquiring increasing experience in negotiating the terms of a decreasing number and magnitude of life events as evidenced in modulating consumption that can subjugate non-essential consumption for essential consumption. As the basic household necessities are generally established at this point, the majority of newly incurred expenditures can stem mostly from wants rather than needs and be confined to the maintenance and/or replacement of durable goods. A higher labor income level juxtaposed to a more subdued expenditure level can assuage liquidity constraints thereby produce income elasticity and offer the opportunity to increase the saving rate. However, as stated earlier, economists expect the saving rate to be commensurate on average with labor income, at best, which may be explained by one of two reasons – many households establish retirement saving rate as a percentage of labor income, therefore any change in the labor income rate produces the reciprocal and corresponding change in the saving rate and in cases where the saving rate is not tied to labor income, greater labor responsibility and mounting disruptions to leisure may bring about a greater appreciation for leisure thereby prompting these households to increase the average saving contribution rate accordingly.
The exogenous influence of time during this stage remains in abundance and the household’s intertemporal decision may also remain heavily skewed towards income indicating that the desire for labor continues to trump leisure however at a diminishing degree. The propensity to consume (endogenous influence) may wane compliments of saving behaviors established during the previous stage. This stage represents a critical link in the household life cycle spectrum because there are fewer impediments to saving given fewer life events and lax liquidity constraints. If the household has not developed good saving behaviors at this point, non-essential consumption habits can become ever entrenched making it highly improbable that the household will attain Balanced Income during the subsequent life cycle stages. The intertemporal decision to increase saving during this stage can pose unique challenges given household dependents are establishing lifestyle of their own which can often come at the expense of curtailing other consumptions. Higher labor income may offer the opportunity to participate in structured saving programs such as the company savings plan (when offered) or an individual retirement account (when eligible) to the point of match and/or maximum limit. The benefit of increasing saving during this stage is balanced income can be first attained and may be actually exceeded during the later part of this stage. The benefit of surpassing Balanced Income is it provides a cushion for market volatility which reduces the ambiguity and threats to consumption requirements in period two. Honing the behavior of living at or beyond the household means can have far reaching and unintended consequences as it can prove to be a disservice to adolescents later on in causing them to perpetuate a lifestyle for which they have become accustomed. Choosing to allocate a
The Maturity stage of the household life cycle is the primary stage in which careers and career aspirations generally peak in terms of labor income as it relates to skill level. Whereas businesses typically reduce expenditure levels during this stage, it is not uncommon for households to take on more expenditure due to the magnitude rather than the multitude of life events. However, the increased expenditure level may be of little consequence given the household’s high labor income level. In general, life events encountered during this stage are different in the sense that they can be emotionally profound and cause households to reassess lifestyle and priorities. As the household lifestyle may have settled primarily into essential consumption, the household priorities may transition from attention to self to that of aging parents and/or emancipating children. Aging parents may begin to experience health issues that may require proximate oversight which can distract attention and interest from labor. In addition, the household will likely become an empty-nest whereby emancipating children may require financial seeding and support as they head off for higher education or to establish households of their own. The advent of aging parents and parting children may cause the household in the latter part of this stage in particular to contemplate the passage of time, the cycle of life, its own mortality, and reassess priorities. In doing so, the household can come to the realization that time has always been the most scarce and precious resource whereby the desire for leisure for the first time can eclipse the desire for labor.
Although savings may be at a level to generate sufficient capital income to fund consumption in the event of an unwelcomed retirement (BI), the uncertainty surrounding the economic conditions of parents and children may make the probability of sustained consumption in retirement seemingly precarious. Lower expenditures due to honed consumption coupled with a more intense lure of leisure may nudge households for the first time into the behavior of allocating a greater portion of labor income and income hikes to saving. The increased saving rate in turn will offer the opportunity to create real wealth (change in saving that outpaces the change in inflation) which can provide a cushion against market shocks; long life; unforeseen life events; higher tax rates; and provide a sense of security in light of these external concerns. For this reason, this stage of the life cycle offer households the final opportunity to employ time as an ally in augmenting saving to secure wealth for consumption at and in retirement. The threat to overcome for households in this stage is to avoid succumbing to emotionally charged consumption decisions by permitting external influences to undermine saving.

Households in the final life cycle stage of Decline have generally reached the pinnacle in terms of tenure and labor income whereby future advances to the income base, especially during the latter part of this stage, are generally tied to the prevailing inflation rate (cost of living). Stagnating or faltering labor income can be due to any number of reasons such as having reached the top of established pay scale for job categories, diminishing skills, abilities and/or interest. Reaching the apex of the pay scale is directly attributed to tenure whereas diminishing skills can be attributed to antiquated or outdated education, skills and/or knowledge. Cognitive and/or physical abilities may
wane due to advancing age and/or diminishing health whereas job interest may dwindle due to fatigue, boredom or preoccupation. In addition, job responsibilities may be changed, reassessed or downgraded in line with faltering skills, abilities and/or interest as justification for fettered labor income. Whatever the reason, the business may surmise that the laborer offers less productivity (diminishing return on its investment) which can be reflected in labor income where growth is relegated to the cost of living.

The life events that are perhaps most prevalent during this stage are the birth of grandchildren and the death of parents, otherwise, the household is likely absolved of external financial oversights at this point as pecuniary assistance is mostly nonobligatory. In the absence of dependents and parents, the household will have for the first time the freedom to redefine lifestyle to matters that suit its interest. Household expenditures will have subsided where consumption may be the lowest of any point across the life cycle spectrum, thereby affording these households the best opportunity to squirrel away a high portion of labor income in the form of precautionary saving in preparation for retirement. Given anemic increases to labor income and impending retirement, this stage is the only stage in which the marginal propensity to consume is likely to be a negative value indicating the change in saving will exceed the change in labor income. Although cumulative savings may be sufficient for generating a capital income stream necessary to sustain consumption at retirement, with dwindling time and the desire for leisure at its apogee, the household may be compelled to allocate the largest percentage of labor income to saving possible in an effort to adequately provide for retirement through
precautionary wealth which affords the household the luxury of retiring on its own accord.

Figure 1 above is an abstract illustration of the household intertemporal budget decision across the conjectured household life cycle model (period one) just discussed. It can be seen that the point that households begin to allocate disposable income to saving starts around about the average age of twenty-five years. The change in the savings rate relative to the change in income may marginally increase early on to a specific rate (such as the point to maximize company match) where it is prone thereafter to pace, on average, the change in (labor) income indicating that consumption changes are also commensurate with income changes. This is due primarily to the pursuit of labor over leisure during the early stages. This saving rate is expected to persist until the final two
stages of the household life cycle where the increase in consumption subsides and leisure overtakes labor. At this point, the change in the saving may command a greater percentage of income or income changes indicating that the change in saving exceeds the change in income and the marginal propensity to consume is a negative value. Therefore, households tend to smooth consumption over most of the household life cycle stages to around the average age of 55 where preparatory and precautionary saving takes hold.
It was stated earlier that there are more commonalities between businesses and households than there are differences. A noted primary difference between the two entities is businesses craft financial documents to track and measure performance against goals. In fact, the financial industry requires publicly traded companies to create and publish financial documents periodically for the benefit of the investment community. Whereas these financial documents are commonplace for businesses, households rarely create or make use of such tools because of the perceived time, difficulty and/or special skill required. Households stand to benefit greatly from setting financial goals and crafting some semblance of financial documents especially for ascertaining Balanced Income. Crafting and maintaining household financial documents do not require the same level of detail or rigor as their business counterparts because for one, uniformity or a standardized method across households is not required and two, they are not scrutinized by a third party (outside parties cannot take a financial interest or position in households as they can for businesses). Creating and maintaining household financial documents are straightforward and the benefits derived are immeasurable in comparison to the effort put forth. In addition, these documents are a necessary evil in that their absence renders
households ineffective in navigating the journey to wealth (as defined by the Household Dependency Index) and incapable of determining when the minimal required savings for wealth has been reached (as defined by Balanced Income).

The Household Income Statement

The income statement is one of two primary financial statements used by businesses to measure performance against goals because it provides a snapshot of financial performance over a specified period of time, generally one year. Therein, the primary benefit of the household income statement is it shows how disposable income is allocated between consumption (lifestyle) and saving which is paramount to reaching Balanced Income. Illustration 1 below is included as a fictitious household income statement created for reference. Note that the household income statement is structured similar to that of the business where there are disposal income (revenues), consumption (expenditures), and saving (discretionary income) categories. The function of the document is unchanged in that this structure helps facilitate ease of use and understanding for the business and household alike. Unlike the business income statement which covers a fiscal year, the reporting period for the household income statement for various reasons should cover a shorter period of time. Because the businesses have the opportunity for eternal life, the time span between reporting periods can be longer. The household in contrast has limited life and may not have the luxury of one year to rebound from a financial snafu that may compromise Balanced Income. Also, publicly traded companies are required by law to disclose financial information within
discreet time periods whereas households, which are free from financial oversight (except from a tax perspective), have no reporting requirements or timetable which may help allay the discomfort in creating them. One drawback in households having no oversight is expenditures can be ignored or fabricated which defeats the purpose of crafting financial documents altogether. Another reason the business timetable is longer is a single business can have several expense and profit centers lending to the complication and extended time required to acquire, compile and report the financial information whereas a single household is just one expense and profit center making it easier and faster to create an income statement. Perhaps the most important reason the household income statement should be updated more frequently than annually is allowing financial issues to linger or fester for a year or more before reconciling can compound problems and do irreparable harm to the prospect of wealth. To assuage any reservation for creating the income statement, it need only be constructed once, although routine updates are recommended, preferably monthly, to ensure the household does not veer too far off track for too long in managing its disposable income allocation strategy. Also, because household financial transactions are typically conducted monthly (receipts for incomes, expenses and savings), modifying the income statement around the same timeframe promotes convenience and accuracy. The household will find that most of the content in the household income statement is sedated from month to month, save certain expenditures, so the modifications will be relatively benign. Lastly, electronic spreadsheets are commonplace anymore where simple mathematical formulas can be stored and retrieved instantaneously to recalculate income statement components after minor updates and
revisions. Consequently, maintaining a monthly income statement is convenient and instrumental in ferreting lifestyle for the purpose of managing saving. Following are components typically found on the household income statement.

Sources of Income

There are two sources of income available to households during period one - labor and capital. Disposable Income is after-tax income derived from labor whereas Capital Income is pre-taxed income derived from savings. The “top line” of the household income statement is Disposable Income which includes all labor income earned by the household heads. Disposable Income is the monetary measurement of time traded for labor as influenced by skill, training, education, occupation and industry. Because the “top line” of the household income statement is an after tax figure, unlike the business, a line item for taxes is not required. Households can appear innately motivated to grow disposable income because, all things being equal, the greater the level, the higher the lifestyle (consumption). Although high disposable income may make it easier to save, it is not the antecedent for saving because the two are completely unrelated in this regard. Saving is thought to be contingent upon the sufficient allocation of disposable income in accordance with current consumption demands. In other words, the household consumption level, rather than its income level, is the greater impediment to saving which implies that saving is endogenously induced and when commenced timely and appropriately, can yield Balanced Income at almost any life cycle stage.
The second source of income available to the household is capital which is placed immediately following the line item for Disposable Income to facilitate easy referencing and tallying. Capital Income is to the household as Earned Interest is to the business in that it is earnings paid to the household in the form of interest or dividends typically on non-tax deferred capital stock which is pre-taxed and therefore must be reported for tax purposes. Capital Income is interest which is remuneration for postponed or delayed gratification and given that early stage households generally have a higher consumption-to-disposable income ratio, they are recompensed accordingly (through higher risk capital assets and compounding). The level of Capital Income is generally minuscule in comparison to Disposable Income, especially for early stage households, which means the impending tax obligation is generally of little consequence. The nominal amount of Capital Income earned during the period will most likely be found on the household’s quarterly investment statements, so it will be necessary to divide this amount by three to obtain the average monthly interest earned for purposed of the household income statement. It should be noted that Capital Income from tax-deferred savings is not to be recorded on the household income statement because the funds are not available for immediate use nor are they taxed during period one.

Total Household Income

Total Household Income is the sum of Disposable Income and Capital Income. The purpose of Total Household Income is to provide a nominal account of all income received into the household (by household heads) during the reporting period. Both
disposable and capital income are generally low during early household life cycle stages but can rapidly grow as the household gains labor skills, tenure and accumulate non-tax deferred savings. The greater portion of Total Household Income will likely come from labor especially during early household life cycle stages, however, capital will likely have the faster growth rate across all household stages. This is due to money capital’s potential to work harder and longer than human capital when properly allocated. Also, profit and interest rates are normally higher than labor productivity growth and therefore real wage growth. The average capital (savings) growth rate can be ascertained on quarterly investment statements as the inception rate of return. Unfortunately, this bit of important information can go unnoticed because many households are conditioned to focus on short term performances as reflected in the quarter-over-quarter nominal changes. Taking the time to decipher this information may garner a greater appreciation for growth rates on capital relative to labor and thus provide the necessary motivation for households to exert an equivalent amount of effort to capital as they do to labor.

The consumption section follows the income section on the household income statement. Household consumption represents expenditures and is synonymous with lifestyle and lifestyle can be detrimental to saving. Consumption is a critical component of the household income statement because absent any oversight, this is the section most likely to be under-disclosed which creates a domino effect in not only subjecting the intertemporal equation to disarray but also imperiling any hopes of gauging future requirements. Because consumption is the crux of Balanced Income, when lifestyle is understated, the required capital income stream is also understated in suggesting a lesser
amount of capital stock is required for wealth or to sustain retirement consumption. This is evident in that many households can readily recite their monthly income but few can do so with their monthly expenditure which is a testament to the unrelenting motivation for income and the indifference toward expenditures. The household income statement should be revised monthly so that miscellaneous expenditures are not misplaced or forgotten. It cannot be stressed enough that when it comes to wealth, consumption sets the bar and unbridled expenditures undermines Balanced Income. Turning a blind eye to expenditures subjugates saving and undoubtedly subjects the household to prolonged labor and/or inadequate consumption in retirement. To acquire adequate savings, expenditures must be managed, however, it is first necessary that households understand the different types of expenditures and the challenges and opportunities presented by each. Household expenditures have unique properties that bring about the ability to segment them into categories that facilitate management and therefore saving. These properties are unique in that they have varying degrees of stickiness (resistance to change) thereby presenting households with various leverage points to manage lifestyle.

It is posited that there are three broad categories (types) of household consumption (expenditures) – Fixed, Variable, and Elective which should be recorded and tracked on the household income statement accordingly.

Fixed Consumption

Fixed Consumptions are monthly expenses with fixed payment amounts, however, not all fixed payments can be catalogued as a Fixed Consumption. There are
two criteria that an expense must meet to be included in the Fixed Consumption category of the household income statement - it must be contractual and it must be essential. The expense must be contractual in that a written bilateral agreement must be in force specifying a payment amount over a specified period of time. The payment amount is usually monthly and covers principle and interest costs. If the fixed payment amount is on a schedule other than monthly, it should be averaged to obtain the monthly payment amount by dividing the fixed expense amount by the number of months in the payment schedule. For example, some automobile insurance plans have payment schedules of six month intervals requiring the fixed payment amount to be divided by six (months) to ascertain the average monthly amount for documentation purposes. Accounting for all household expenses on a monthly basis ensures that the household income statement is accurate in amount, consistent in time and conducive to managing lifestyle. Although these expenses are fixed, in many cases the household can make monthly payments in excess of that specified by the contract in an effort to retire the obligation sooner than the explicit expiration date. However, monthly payments that are less than the agreed upon fixed amount can have unfavorable financial consequences (as it does not unilaterally absolve the contract) unless some post-contractual bilateral agreement was arranged. The first requirement for fixed consumption then is that the monthly payment amount is fixed for a specified period of time.

The second criterion is the expense must be essential to lifestyle (in other words, it must entail consumption that is essential to the wellbeing or welfare of the household). The essentiality requirement varies somewhat across households but for the most part,
human beings have some common consumption needs even though the instrument or mode for acquiring them may differ. All households for example have the universal need for sustenance, shelter, and mobility with variations that can be attributed to such things as environmental conditions, customs and geography. An example of a geographic influence on consumption is the automobile may be essential to a household in a rural community because it makes it possible to acquire labor income whereas a household in an urban setting may still have labor income requirements but its proximity to mass transit may quell the need for an automobile. If the rural household has a contract enforced on the automobile used for labor income and if the urban household has a contract to utilize the transit system for labor income, then the expenditure for both modes of transportation qualifies as fixed expenses because they are both essential consumption. The essential consumption requirement for the Fixed Consumption category should not create consternation as it is important that first and foremost, all expenditures should be recorded and tracked. If it is believed that the absence of utility derived from consuming the fixed expense would debilitate or imperil the household’s wellbeing or welfare, then it is most likely a fixed expenditure.

Fixed Consumptions are believed to be the most sticky (inflexible or resistant to change) of all household expense types in the short term because of their ex ante contractual nature stipulating the payment level and payment period. The fixed payment structure (as it cannot be reduced for the duration of the contract) does not offer much flexibility in managing lifestyle thereby making Balanced Income more difficult to attain especially in the early stages of the household life cycle when disposable income is
purported to be low and life events high. In addition, Fixed Consumptions are most sticky for early stage households because the absence of these essential consumptions can expose the household to potential hardship and/or risk. Fixed Consumptions in the long term are believed to be less sticky for latter stage households because the essentiality of consumption is often reduced or is no longer required (due in part to savings). For example, it may be essential for an early stage household to acquire life insurance for household heads and health insurance for children to protect disposable income and savings. The latter stage household may have acquired sufficient savings and/or emancipated its dependents therefore life insurance for household heads and health insurance for dependents are no longer needed. In addition, the latter stage household may have sufficient savings to avoid entering into contracts to procure durable goods such as automobiles. The latter stage household may be in position to downsize to a smaller home or reduce the number of automobiles needed thereby reducing its mortgage and auto insurance requirements altogether. Consequently, Fixed Consumptions are believed to be sticky in the short term and less sticky in the long term which primarily benefits late stage households due to potentially higher labor income, higher savings, and/or a change in lifestyle (priorities) due to a change in life events. The household is reminded that Illustration 1 is presented as an example of expense items to be included in this category and not meant to be exhaustive.
Total Fixed Consumption

Total Fixed Consumptions is the sum of all fixed expenses in the Fixed Consumptions category. The purpose of this line item is to provide a nominal account of all fixed expenses paid by the household relative to Total Household Income and measure the impact of this category on discretionary income and consequent saving. Total Fixed Consumptions will be highest relative to total income for early stage households due to the multitude and magnitude of life events coupled with generally lower labor income levels. Although essential consumptions such as life and health insurance can generally be obtain at lower costs compared to all other household stages (because of age), auto insurance can be highest for the same reason. In addition, the lack of sufficient savings (and/or disposable income) will generally require early stage households to enter into more contracts for certain expenditures such as durable goods that latter stage households may circumvent. Fixed Consumptions may plateau during the mid life cycle stages as households move into a replacement or maintenance mode and decline during the latter stages due to higher disposable income and savings. Mortgage payments, which are generally fixed, will likely remain unchanged across the household life cycle spectrum but during the latter stages, higher home equity will have a dampening effect on mortgage insurance costs whereas the replacement cost, which is tied to market value, can increase insurance premiums.
Fixed (Consumption) Margin

Fixed Margin is derived by dividing Total Fixed Consumptions by Total Household Income to yield the percentage of total income used to defray fixed expenditures. It is likely that the greater percentage of Total Household Income is used for fixed expenses across all life cycles primarily due to the mortgage payment. Because fixed expenses can exhaust the majority of labor income and remain sticky for potentially a long period of time, special attention is warranted to ensure discretionary income (saving) is not compromised for the same period of time. When saving is impacted for a long period, the household loses the benefit of compounding over the same period and is forced to devote an inordinate amount of labor income to saving during latter stages to achieve Balanced Income. The primary culprits compromising Balanced Income are often homes and automobiles because unlike insurance, they furnish the visual appeal portending success. Although the case can be made for homes, as they are capable of appreciating in value and providing a capital income stream in a pinch, automobiles are durable goods, economically defined as goods with a useful lifespan of 3-5 years, and likely to depreciate in value resulting in little to no salvage value shortly thereafter. Entering into long term contracts for more home than necessary or repeatedly entering into contracts for more automobile than needed can elevate lifestyle at the expense of saving. Early stage households in particular must remain cognizant that fixed expenses can quickly engulf disposable income and in doing overburden other necessary expenses and crowd-out saving.
Variable Consumption

Variable Consumptions are monthly expenses with varying payment amounts, however, not all varying expenses are Variable Consumptions. There are two criteria that an expense must meet to be included in the Variable Consumption category of the household income statement - it must be non-contractual and it must be essential. Variable expenses, unlike fixed expenses, are non-contractual in that the monthly expense can be reduced or eliminated unilaterally by the household. The expense level here is generally tied to usage determined by the household or some flat rate usually predetermined by a third party (such as a regulatory agency). Therefore lowering the usage or terminating the utility altogether lowers or eliminates the expense. An example of a non-contractual variable expenditure is water. The monthly expense for water in most cases is based on usage. The household can lower the monthly expense for water by lowering its use of water. The second criterion for a variable expense is it must be essential to lifestyle. Because variable expenses are essential consumption, it is unlikely that the household will permanently terminate the expense altogether unless a cheaper or more convenient alternative is offered. Perhaps the most poignant example is the telephone because it is a utility deemed essential to life as most households have an auditory need to be connected to the world (communication). The land line version of the communication device has historically been non-contractual with a dual expense structure (usage and flat rate) based on consumption type (local or non-local usage). The cellular version in contrast is portable; growing in ubiquity; and offers more convenience (and more features) even though the associated monthly payment can be higher based on
usage and/or some flat rate contractual base. The land line version then would qualify as a variable expense because it is non-contractual and deemed essential as it meets basic communication needs. Although the supposition is a matter of perspective, the portable version is a variable expense if it meets two mutually inclusive conditions – first, the cell phone must be acquired free of contractual obligation (meaning the expense can be unilaterally terminated) and its monthly expense must be subject to change (meaning the monthly expense level is based on usage) and second, there must not be an overlap in consumption (meaning the land line must be terminated). The first condition is intuitively apparent given the requirements defined for a variable expense. However, the second condition indicates that the variable expense can hardly be considered an essential consumption when the basic communication need is being provided by one or the other. In many cases, having an overlap (dual) in consumption for a single essential consumption is tantamount to adorning both a wrist and pocket watch and is therefore conjectured as overlapping consumption for which the third and final expense type is perhaps the more fitting category. One final example of an overlap in consumption is purified bottled water compared to safe-for-human-consumption tap water. Although water is generally non-contractual and essential, nonetheless, bottled water offers convenience with overlapping utility which is an additional variable expense detracting from saving, therefore the expense item should not be recorded as a variable expense. The household is cautioned in justifying dual and/or overlapping consumption expenditures as essential. Befuddling the income statement in this manner not only
impedes the ability to save, it also elevates the level of savings required later on to
generate the necessary capital income stream to fund such consumption expenditures.

Because variable expenses are non-contractual and have mutable payment
characteristics, they are less sticky than fixed expenses whereby the household is at
liberty to exercise an element of control over these expenses. The household can reduce
variable expenses through decreased usage; elimination; or substitution (with a normal
good that has a lower expense rate or is more convenient which can indirectly lower
expenses through time saving). Because variable expenses are less sticky, they offer
various options in managing lifestyle across all household life cycle stages. When
variable expenses are reduced, lifestyle is reduced and discretionary income is
augmented. Increased saving stemming from reduced consumption means a lesser
minimal savings amount is required to fund lesser consumption which offers the
opportunity of Balanced Income for early stage households.

Total Variable Consumption

Total Variable Consumption is the sum of all variable expenses. The purpose of
this line item is to provide a nominal account of the impact that variable expenses have
on Total Household Income and on discretionary income. Variable expenses are most
likely the second highest category of expenses for the household. Furthermore, because
these expenses represent the most basic essential consumption, there is little chance they
can be permanently eliminated as means to reduce overall variable consumption for
saving purposes. However, because variable expenses are also attributable to taste,
preference and demographic, minor changes in priorities can produce major saving opportunities (multiplier effect) across the household life cycle spectrum. For example, food prices are generally sticky for households within the same demographics therefore a larger household size or a household with a discerning palate is expected to have a higher monthly food expense. A modification in priorities to dine out less frequently can lower this expense and improve saving. Lastly, it is reminded that variable expenses can be elevated due to an overlap in consumption and/or the mislabeling of consumption as essential simply because the household has become accustomed to the utility. Variable expenses can be managed in a manner that neither enhances nor detracts from that which is coveted therefore households can deploy various strategies that are inconspicuous to image or economic-social class.

Variable (Variable) Margin

Variable Margin is derived by dividing Total Variable Consumption by Total Household Income to yield the percentage of total income required to fund variable expenses. This category of expenses is believed to be the second largest category and less sticky than fixed expenses therefore it offers a greater opportunity to manage household consumption for the purpose of saving.

Elective Consumption

Elective Consumptions are expenses with either fixed or varying payment amounts however, not all fixed or varying payments are elective expenses. There are two
criteria that an expense must meet to be considered elective – it must be an expense of choice and it must be nonessential. Because these are expenses of choice, they can be contractual or non-contractual therefore payments can be fixed or variable, but they are always nonessential. Elective expenses represent consumption above and beyond that required for basic household needs. However, acclimation can cause some households to believe that nonessential consumption is more essential than essential consumption because they induce exaltation in lifestyle thereby bringing about greater utility than that which can be provided by essential consumption. The most common types of expense items found in this category are related to hobbies, habits, excursions and vices. Unlike essential consumption, nonessential consumption permits the household to actually partake in the fruits of its labor; therefore elective consumption can be the harbinger to happiness and material to health. Consequently, elective consumption is more apt to fund utilities that bring meaning and purpose to labor. Although this category of consumption provides euphoria to households, there is one primary problem - their potentially intoxicating effects can induce households to overindulge. The frequent and/or excessive partaking of nonessential consumption is not only detrimental to lifestyle and the corresponding capital income requirements, it pillers resources from saving. In fact, overindulging in nonessential consumption is the most pernicious impediment to saving. This conjecture may come as little surprise and may explain why elective expenses run the greater risk of being under-reported or excluded entirely from the household income statement. Overindulgences can be difficult to unveil because they are often recreational and convenience-based consumption disguised as essential consumption. In addition,
they often masquerade as essential consumption overlapping existing ones (as previously discussed) such as cellular and land lines; bottled and tap water; dual life insurance policies; multiple automobiles; excessive dining out; duplicate clothing items; etc. They can come cloaked as necessary consumption for overall wellbeing such as impromptu vacations, frequent recreational excursions; and compulsive shopping. Overindulgence is manifested in repeated lapses in fiscal discipline and can wreak havoc on lifestyle, siphon saving from labor income, elevate capital income requirements to unattainable levels, and prolong labor well beyond the Declining household life cycle stage.

Elective expenses are the least sticky of all expense types because they are generally non-contractual therefore curtailing or eliminating them altogether does not compromise essential consumption. However, this is easier said than done because the conspicuous and covetous nature of these utilities can often bring about social stigma making it difficult for households to persevere. Because this expense category is behavioral based, coming to terms with what constitutes overindulgence is usually a matter of perspective and an impasse (between household heads) can crimp progress. The benefits of reaching a household consensus on that which constitutes overindulgence can be profound as minor reductions in nonessential consumption can reap big rewards, creating a multiplier effect of sorts, in that lifestyle and savings requirement are extenuated; saving is unencumbered; and compounding is amplified potentially creating an income stream above that required for wealth. When recording elective expenses on the income statement, it is especially important to specifically identify each expense item to ensure proper tracking and implication to the overall household budget. Shrouding
elective expenses in broad or nebulous categories makes it difficult to determine the impact individual expense items have on the expense category and most importantly, household saving.

Total Elective Consumption

Total Elective Consumptions is the sum of all elective expenses. The purpose of this line item is to provide a nominal account of the impact that elective expenses have on Total Household Income. The magnitude of elective expenses is a direct reflection of the endogenous influence on the household’s ability to save. The allure of the utilities derived from this expense category can be so profound that households are prone to overindulge forsaking essential consumption and risking insolvency. Consequently, elective expenses present a unique challenge in managing lifestyle because they are more likely to go either under-reported or unreported and can be the primary inhibitor to acquiring adequate savings for wealth.

Elective (Elective) Margin

Elective Margin is Total Elective Consumption divided by Total Household Income. This value provides the percentage account of total income spent on nonessential consumption. This category of expenses is the least sticky of all expense types and offers the greatest opportunity to manage household consumption for the purpose of wealth.
Total Consumption (Lifestyle)

Total Consumption is the sum of the three types of expenses - Fixed, Variable and Elective. The implication of Total Consumption is important because it represents the nominal amount of household income required to fund lifestyle in period one and it foretells the nominal amount of capital income, and therefore cumulative savings, required to fund lifestyle in period two if the household were to retire at this current consumption level. When on-hand savings are determined to be insufficient to generate the required capital income stream, the Household Dependency Index is invoked to determine the household’s dependency on labor income for consumption based on the capital income stream’s proximity to Total Consumption. When capital income from on-hand savings is found to be sufficient or more than sufficient to displace labor income in funding total consumption, the household has attained Balanced Income for involuntary retirement and/or buffered wealth for voluntary retirement.

Total Consumption (Lifestyle) Margin

Total Consumption Margin is Total Consumption divided by Total Household Income and is the percentage of overall income allocated to overall consumption. This represents the consumption-to-income ratio.

Discretionary Income

Discretionary Income is Total Household Income minus Total Consumption (Lifestyle). It is critically important that households understand the implications of
Discretionary Income. It is saving. It is that portion of Total Household Income that must be saved to accumulate adequate capital assets for the purpose of generating the necessary capital income stream for wealth/retirement consumption. Discretionary Income then is that which remains of Total Household Income after all essential and nonessential consumptions are satiated and it should be consigned to capital for the eventual displacement of labor. It is intuitively apparent that Discretionary Income can be a positive or negative value. A positive value can be an indication that the household is exhibiting the endogenous behavior for leisure; is not reliant on borrowing to fund lifestyle; and has the opportunity to save to attain Balanced Income and/or buffer wealth. A negative value is an indication that the household has chosen a lifestyle that its labor and capital income cannot support. The household has perhaps engaged in overlapping, overindulgent, and/or leveraged consumption and has postponed saving which can subject the household to an extended reliance on labor for consumption. Using leverage to augment lifestyle can increase the cost of borrowing thereby exacerbating monthly expenses that procures a liquidity trap which makes all expenses highly sticky.

Although the specific percentage breakout by consumption categories is of little relevance, it may be of importance to note that Total Consumption, as defined by Lifestyle Margin, should not exceed 80% of Total Household Income over the long term. It was posited earlier that households are rational and forward-looking entities that make consumption decisions based on lifetime income expectations. If this is the case, then it naturally follows that the saving decision adheres to the same logic. The rationale for this conjecture is the average retirement age in the U.S. is reported to be around 62. The
average lifespan is reported to be roughly 80 years. Therefore, the average number of years the household can expect to spend in retirement (absent labor income) is approximately 18 years\[^{13}\] which means roughly 20% of the household’s lifespan is spent in retirement. Consequently, capital stock must be of sufficient level to fund consumption over the 18 year period which may suggest that households must acquire roughly 20% of its overall disposable income over the long term for this purpose. In smoothing consumption over period one (permanent income hypothesis), households are simultaneously smoothing saving (permanent saving hypothesis) in preparation to smooth consumption over period two. Hence, the purpose of labor income is to provide for consumption over the entire household’s lifespan. Note: the sooner the household commences with saving, the lesser will be saving rate required to accumulate 20% of its lifetime disposable income due to the compounded growth on savings (interest and dividend).

This strategy is supported in the 1957 treatise *A Theory of the Consumption Function*, whereby Milton Friedman posited that “meaningful uncertainty in future labor income” brings rise to the permanent income hypothesis where income is spread to provide a lifetime of consumption - a technique known as consumption smoothing. Friedman noted that the household will consume at a level that current income is expected to continue into the future or its expected long term average income. In essence, the household’s current income becomes its permanent income even though it can vary from time to time with little to no impact on consumption. In periods where current

\[^{13}\] The actual percentage has been rounded to the nearest tenth as 18 divided by 80 is roughly 23% and not 20%.
income rises above permanent income, households are said to save and when current income falls below permanent income, households cease saving in an effort to maintain consumption levels. He noted that changes in consumption behaviors are unpredictable because they are based on individual expectations. The implication here for early stage households is the average saving rate over the long term may be less than 20% when saving is started early because of compounding. In contrast, late stage households that are late to commence with saving may have the added burden of saving more than 20% over the short term due to the loss opportunity for savings to compound.

The Percent of Total

The Percent of Total column shows the percentage impact that individual expense items have on the overall expense categories (and over income). This information is helpful in deciphering which expense item has the greatest and least impact on the category and can prove instrumental in recalibrating the intertemporal budget for the purpose of saving. It is intuitively apparent at this point that reducing expenditures have monumental saving implications in that lower consumption demands in period one can translate to lower savings requirement for period two.

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14 Households use permanent income expectation to smooth consumption whereby a change in income (over a short period) does not disrupt the level of consumption. Sometimes consumption levels are maintained over the long run at the expense of saving.
Illustration 1

Household Income Statement

March 2013

<table>
<thead>
<tr>
<th>Sources of Income</th>
<th>Amount</th>
<th>% Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disposable Income</td>
<td>$3,800</td>
<td>95%</td>
</tr>
<tr>
<td>Capital Income</td>
<td>$200</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Total Household Income</strong></td>
<td><strong>$4,000</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fixed Consumptions</th>
<th>Amount</th>
<th>% Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortgage</td>
<td>$1,200</td>
<td>62%</td>
</tr>
<tr>
<td>Auto</td>
<td>$300</td>
<td>15%</td>
</tr>
<tr>
<td>Health Insurance</td>
<td>$200</td>
<td>10%</td>
</tr>
<tr>
<td>Auto Insurance</td>
<td>$200</td>
<td>10%</td>
</tr>
<tr>
<td>Life Insurance</td>
<td>$50</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Total Fixed Consumptions</strong></td>
<td><strong>$1,950</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**Fixed Margin** 49%

<table>
<thead>
<tr>
<th>Variable Consumptions</th>
<th>Amount</th>
<th>% Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone (Land)</td>
<td>$50</td>
<td>7%</td>
</tr>
<tr>
<td>Category</td>
<td>Amount</td>
<td>% Total</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------</td>
<td>---------</td>
</tr>
<tr>
<td>Groceries</td>
<td>$500</td>
<td>71%</td>
</tr>
<tr>
<td>Water</td>
<td>$25</td>
<td>4%</td>
</tr>
<tr>
<td>Electricity</td>
<td>$125</td>
<td>18%</td>
</tr>
<tr>
<td><strong>Total Variable Consumptions</strong></td>
<td><strong>$700</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**Variable Margin** 18%

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
<th>% Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective Consumptions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cable/Satellite TV</td>
<td>$78</td>
<td>16%</td>
</tr>
<tr>
<td>Shopping</td>
<td>$50</td>
<td>10%</td>
</tr>
<tr>
<td>Dining Out</td>
<td>$150</td>
<td>31%</td>
</tr>
<tr>
<td>Golf</td>
<td>$100</td>
<td>21%</td>
</tr>
<tr>
<td>Telephone (Cell)</td>
<td>$100</td>
<td>21%</td>
</tr>
<tr>
<td><strong>Total Elective Consumptions</strong></td>
<td><strong>$478</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**Elective Margin** 12%

**Total Consumptions (Lifestyle)** $3,128

**Consumption Margin** 78%

**Discretionary Income (Saving)** $872

**Discretionary Margin** 22%
The Household Balance Sheet

The balance sheet provides invaluable information around the financial health and wellbeing of businesses and households alike. The household balance sheet is the complementary financial document to the household income statement for which both are required to exact the Household Dependency Index and Balanced Income. The household income statement shows how labor income is allocated to consumption and saving over the short term whereas the household balance sheet shows how labor income has been allocated to consumption and saving over the long term. In theory, the Household Dependency Index measures disequilibrium between the household income statement and the household balance sheet regarding labor funded consumption relative to capital funded consumption. Balanced Income is the point of equilibrium between the two statements where capital funded consumption reaches parity with labor funded consumption. The household balance sheet then provides a snapshot of the overall financial health and prognosis of the household as it pertains to the prospect of steady-state consumption in the event of retirement. The household income statement and the household balance sheet are not only essential tools for discerning the HDI and BI, absent these financial documents the household is incapable of assessing its position of wealth or its retirement readiness.

The household balance sheet, like the household income statement, need only be crafted once with periodic revisions. The household balance sheet can be revised quarterly with allayed effort due to corresponding quarterly savings statements (SEC Form 10-Q) detailing the market value of various capital assets. The household balance
sheet can be structured similarly to the business balance sheet where savings (assets) and consumption (liabilities) are delineated with subcategories when applicable (see Illustration 2 below for reference). Because households are private entities that generally finance capital assets with labor income and borrowed funds rather than ownership interest, there can be no relationship between assets and liabilities or any other component for that matter to facilitate balance. And although liquidity is an important property of the overall structure and composition of the household balance sheet, its overarching implication is subjugated to magnitudes of liquidity which is more pertinent for wealth and/or retirement assets.

Household Assets

Household assets are capital stock acquired through saving. Household assets, like business assets, are things of economic value that can be exchanged for money. It should be noted that personal items (such as clothing, jewelry and automobiles) are generally not acquired for wealth/retirement purposes because they are depreciable in nature, therefore, they should not be included in the household balance sheet as assets. Household assets, unlike business assets, are always tangible (no goodwill) in nature. Although the case can be made that certain household surnames are synonymous with privilege and therefore beneficial in procuring labor income, they are hardly fungible as an intangible asset capable of procuring perpetual capital income. In an effort to promote conformity and ease of understanding, household assets, like business assets, can be placed on the left top half of the household balance sheet and arranged in semblance of liquidity (see
Illustration 2). And although asset liquidity, as defined as the ease of converting capital assets to cash with minimal disruption to price is important for household assets too, fluidity is the underpinning requirement for wealth/retirement assets and therefore the household balance sheet should be structured as such.

The fluidity of an asset then pertains to the physical state of the asset’s liquidity property that allows it to produce a perpetual capital income stream (which is essential for wealth and retirement). In other words, fluidity permits an asset to be parceled or liquidated into fractional units or denominations of cash to exact consumption requirements. This property is of grave importance for household capital assets in that although assets are acquired for the same reason (as businesses), they are redeemed for a different purpose altogether. Fluidity yields additional demands on liquidity around the type of capital assets the household should acquire for wealth purposes and is perhaps the essence of capital asset allocation. Hence, the more viscid the household capital asset, the more it lacks fluidity, and the least likely its income stream can be tailored to consumption. Absent the property of fluidity, assets must be liquidated in full or in tranches that are incongruent with lifestyle needs, which can trigger a host of problems. For example, the opportunity cost in redeeming more capital assets from the marketplace than required to fund lifestyle is it arrests the prospect for overall interest growth. Additionally, redeeming more assets than required also creates a shock to household income, potentially altering lifestyle which elevates future consumption needs and places an addition burden on a diminished savings pool. The combination of opportunity cost and elevated lifestyle not only subverts Balanced Income, it also increases the risk of
prematurely depleting the capital asset base. In addition, liquidating more assets than required invites mismanagement of resources and subjects the household to unnecessary tax obligations. A properly allocated wealth portfolio should include assets with varying degrees of viscosity that can be calibrated to achieve the necessary capital income stream for consumption purposes. Therefore, it is recommended that the asset category of the household balance sheet include three subcategories based on fluidity - low, medium and high viscosity.

Low Viscosity

Capital assets with low viscosity have high fluidity in that they can be redeemed in whole, predefined allotments (tranches) and/or fractional units necessary to exact a monthly capital income stream specifically tailored to consumption requirements. A savings portfolio consisting of assets capable of generating predefined allotments coupled with fractional allowances offer the opportunity to alter the capital income stream relative to changes in lifestyle thereafter. As a group, these assets mitigate the risk of overshooting or undershooting lifestyle requirements and the associated problems outlined above. Some examples of capital assets with low viscosity are cash, passbook accounts, variable annuities, and mutual funds.

Medium Viscosity

Capital assets with medium viscosity also have medium fluidity in that they can be liquidated in whole or predefined allotments to generate a monthly capital income
stream that approximates consumption requirements. A savings portfolio composed exclusively of assets with medium fluidity cannot be redeemed in fractional units and is therefore incapable of being calibrated to generate the precise capital income stream for consumption. However, the predefined allotment portion of the savings portfolio (fixed income) offers the opportunity to approximate lifestyle needs thereby reducing the risk of income shocks, premature capital asset depletion and unnecessary tax obligations. Examples of such assets include rental properties (homes and land), fixed annuities and limited partnerships.

High Viscosity

Capital assets with high viscosity are those with low fluidity properties in that they can only be liquidated in whole. These assets alone are incapable of generating an exact or approximate capital income stream for consumption. In fact, they are incapable of generating a monthly income stream at all. Liquidating these assets for consumption purpose creates a shock to income which can alter lifestyle, prematurely deplete the capital base and exacerbate taxes. Examples include privately held saving repositories such as homes, land and hard assets like heirlooms and collectibles.

Household Liabilities

Household Liabilities represent consumption funded through borrowing. Household liabilities are primarily contractual obligations with outstanding balances and therefore are claims against future income. Although personal items are not included on
the household balance sheet as assets, they are however included as liabilities when they have outstanding balances. It is important to note that non-contractual obligations, for which balances are incurred due to non-payment or underpayment, are also included on the household balance sheet. Unlike business liabilities, structuring household liabilities based on liquidity, contract expiration date or finance rate offers little in way of preparing for wealth given many households have obligations with maturity dates greater than one year and/or vacillating variable finance rates which are generally not managed to this end. Consequently, household liabilities should be enrolled under a single category arranged in order from lowest to highest outstanding balance. This arrangement is conducive and consistent with a frequently touted and commonly used strategy for efficiently retiring obligations referred to as “folding down” debt where income is relegated to retiring obligations in order of lowest to highest outstanding balance. As balances are retired, household income is freed up from the preceding monthly expenses which results in ever larger saving that can be used to expediently retire succeeding balances. Once the process is unleashed, it can be infectious in that retiring subsequent obligations becomes decreasingly burdensome and increasingly gratifying. Therefore, the primary benefit in structuring liabilities in this manner is to indoctrinate households into the habit of retiring liabilities prior to maturity dates, which lowers claims against future income and raises saving sooner for compounding. The combination of low consumption and high saving offers the prospect of Balanced Income at relatively any household life cycle stage. There are two components commonly calculated from the household balance sheet to determine the household’s position of wealth – net worth and liquid net worth.
Net Worth

Net worth is widely heralded as the measurement of household wealth and it is derived in the same manner as for the business in that Total Liabilities are subtracted from Total Assets (Total Assets – Total Liabilities = Net Worth). When total assets are greater than total liabilities, then net worth or household wealth is positive and when the reciprocal occurs, net worth or household wealth is negative. From a microeconomic perspective, the net worth value is that which remain of capital stock if it were used to eliminate consumption claims against future income. Households can purview their net worth to determine if it is of sufficient quantity for wealth consumption. From a macroeconomic perspective, the net worth value can give an indication of the overall health and plight of households as changes in the value can be used to discern overall consumption and saving behaviors which is important information to businesses and the economic trajectory. The household can compare its microeconomic net worth value to the macroeconomic net worth value to give an indication of how it measures up to the community as a whole. Considering the advent of life events coupled with anemic labor income and nascent savings, it is not uncommon for households in the early phase of the Emergence stage to have low or negative net worth. It is important to note that net worth has other microeconomic implications for households. For example, banks can make use of the value to assess the risk of a loan default. In addition, net worth has a practical use for households on the verge of retirement in particular as a common pre-retirement strategy is to retire as many liabilities as possible through the liquidation of assets. In doing so, the household reduces its overall monthly expenses (lifestyle) and uses the
improved saving position to rebuild capital assets before retiring. The capital income stream can then be recalculated from the potentially higher net worth position (than before) to determine if it is of sufficient amount to fund potentially lower consumption demands.

Liquid Net Worth

Liquid net worth is the more obscure of the two measures of household wealth but its implication for wealth/retirement readiness in particular is more material. The liquid net worth value is kin to the acid test for businesses in that the market value and the balanced owed on the primary residence are excluded from the aforementioned net worth equation such that 

\[
((\text{Total Assets} - \text{Primary Residence Market Value}) - (\text{Total Liabilities} - \text{Primary Residence Mortgage Balance})) = \text{Liquid Net Worth}
\]

Excluding the primary residence from the determination of household wealth/retirement readiness places a more stringent requirement on the remaining assets because it is often found that the bulk of household wealth is tied up in the value of the primary residence. Such a condition can be problematic for two reasons - first, the permissible amount of equity and the available income stream thereof (reverse mortgage) is obscure and may be insufficient to fund consumption (medium viscosity) and secondly, liquidating the primary residence altogether (high viscosity) creates a shock to income, elevates taxes, and if the resulting assets are not properly managed, the primary asset can be prematurely depleted. Additionally, liquidating the primary residence to expunge liabilities and/or generate capital income presumes that some alternative and/or lower-cost dwelling
arrangement has been procured. Because shelter is essential to life, it is highly implausible that the primary residence can be liquidated for the purpose of eliminating expenditures without having to replace it in some form or fashion. Discerning household wealth in this manner is a more effective gauge in determining wealth/retirement readiness because equity extraction is deemed the bastion of last resort and households do not have the luxury of liquidating the primary residence without incurring some substitution cost. Unfortunately, neither measure of wealth provides much useful information around what is required for steady-state consumption in the event of an unplanned retirement. Balanced Income and the Household Dependency Index on the other hand can help determine what is required and can prove instrumental in bringing clarity to what constitutes (quantifies) household wealth.
# Household Balance Sheet

March 2013

## Assets

<table>
<thead>
<tr>
<th>Viscosity</th>
<th>Market Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low Viscosity</strong></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>$55,000</td>
</tr>
<tr>
<td>Traditional IRA</td>
<td>$75,000</td>
</tr>
<tr>
<td>Roth IRA</td>
<td>$95,000</td>
</tr>
<tr>
<td>403(b)</td>
<td>$150,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$375,000</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Viscosity</th>
<th>Market Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Medium Viscosity</strong></td>
<td></td>
</tr>
<tr>
<td>Rental Home</td>
<td>$120,000</td>
</tr>
<tr>
<td>Annuity</td>
<td>$55,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$175,000</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Viscosity</th>
<th>Market Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Viscosity</strong></td>
<td></td>
</tr>
<tr>
<td>Primary Residence</td>
<td>$350,000</td>
</tr>
</tbody>
</table>
Gold Coins  $15,000

Total  $365,000

Total Assets  $915,000

<table>
<thead>
<tr>
<th>Liabilities</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washer &amp; Dryer</td>
<td>$1,200</td>
</tr>
<tr>
<td>Credit Card 1</td>
<td>$7,000</td>
</tr>
<tr>
<td>Credit Card 2</td>
<td>$15,000</td>
</tr>
<tr>
<td>Automobile 1</td>
<td>$18,000</td>
</tr>
<tr>
<td>Automobile 2</td>
<td>$25,000</td>
</tr>
<tr>
<td>Bank Loan</td>
<td>$35,000</td>
</tr>
<tr>
<td>Rental Home</td>
<td>$115,000</td>
</tr>
<tr>
<td>Primary Residence</td>
<td>$300,000</td>
</tr>
</tbody>
</table>

Total Liabilities  $516,200

Net Worth  $398,800

Liquid Net Worth  $348,800
THE HOUSEHOLD DEPENDENCY INDEX

The Household Dependency Index represents the condition where like growth and redemption rates on on-hand capital stock produces an after-tax capital income stream that is less than that required for current consumption. Insufficient capital income relative to that which is required gives rise to quantifying the household’s dependency on labor for consumption. The Household Dependency Index is to the wealth journey as Balanced Income is to the wealth destination whereby the variance between these two points represents the household’s dependency on labor. Capital income is interest from the savings repository that displaces labor income in this regard and in doing so affords the household the opportunity to sever labor. The journey to Balanced Income requires the investment of time and money - time in the form of patience (for compounding) in letting the journey safely unfold and money in the form of resources (saving) needed to fuel the journey. The Household Dependency Index then is an efficiency rating in that it measures the household’s use of time and money pursuant to the destination. In theory, devoting more time to the endeavor is an endogenous-based behavior because it lessens the amount of money needed for the journey (capital funded wealth) whereas devoting more money to the endeavor is an exogenous-based behavior because it lessens the amount of
time needed for the journey (labor funded wealth). The efficient commingling of time and money, where an adequate proportion of disposable income is allocated to saving early on, can offer the household the opportunity to retire on its own accord.

The household’s progression along the time continuum (journey) en route to the destination can be approximated in terms of waypoints. The Household Dependency Index (HDI) is a tool designed to approximate the household’s proximity to the Balanced Income (BI) destination from any point along its travels. The waypoint provides the HDI with two reference points – the distance traveled and its antithesis, the distance remaining to travel, where both measurements are presented in percentages for ease of discernment. Both measurements are an indication of the household efficiency in allocating disposable income to consumption and saving (money over time) relative to the household life cycle stage. The percentage point representing distance traveled is the household’s current locale (based on on-hand savings) from its point of origin (zero savings) which gives an indication (in percentage terms) of diminished dependency on labor income to fund consumption. The percentage point representing the distance remaining to travel is the household’s current locale (based on on-hand savings) relative to its point of destination (BI) and gives an indication (in percentage terms) of the remaining dependency on labor income to fund consumption (which is the crux of the Household Dependency Index).

The two reference points (distance traveled and distance remaining to travel) can be derived geometrically by examining the slope of a straight line. The household must first determine the monthly capital income stream required from savings to fund its current level of consumption if wealth and/or involuntary retirement were to occur. The
total expenditure amount located on the household income statement proxies this monthly
capital income stream. Secondly, the household must acquire the market value of its on-
hand savings which is presented on the household balance sheet as total assets. Last, the
household must assess an appropriate redemption rate with consideration to the
anticipated asset growth rate and the prevailing state and federal tax rates. The
redemption rate can be thought of as a dissaving rate from capital stock for period two
consumption which is the opposite of the saving rate to capital stock from period one
consumption. This is the essence of steady-state consumption in that dissaving gives back
to the household (for consumption) in period two what was taken from the household (for
consumption) in period one. Therefore, the redemption rate is the rate in which on-hand
savings is dissaved for consumption. It is the annualized dissaving rate the household will
shave from capital stock for the purpose of wealth/retirement consumption which takes
into account the expected growth rate of the capital stock with consideration to the
household heads’ average age (life cycle stage) relative to its life expectancy.

The long-term expected growth rate (performance) of the capital stock is
important in determining the dissaving rate to be used in procuring the minimum capital
income stream required to sustain consumption. The capital asset allocation is arguably
the critical component in estimating the portfolio’s performance (based on expectation)
and the estimated portfolio performance determines the gross redemption (dissaving) rate
of the capital stock. The long-term (generally more than 3 years) growth rate is used
because markets are thought to be inefficient (irrational) over the short-term. Aberrations
in asset prices are thought to smooth over time as information is disseminated and
emotions are abated. Therefore the annual redemption rate on savings is the estimated long-term average (annualized) growth rate that is expected from the capital asset mix. The estimated growth rate on savings can culminate from expectations around interest rates coupled with past performances of the same or like asset mix over an equivalent period of time relevant to the household’s life expectancy. For example, if the household life expectancy is thirty years, then thirty years of historical performance relative to asset pricing and interest rates on like products and economies can be scrutinized to help project savings performance. Although future interest rates and past performances are not foolproof methods for foretelling capital stock performance, as an added measure, a shorter horizon which purposefully includes a market downturn, can be incorporated into the analysis to see how the asset mix has performed given these circumstances. And for obvious reasons, it is helpful when households avoid commencing redemption during a downturn in the market.

The redemption rate for wealth encompasses expectations around capital preservation as opposed to capital depletion and/or erosion (which would be expected given involuntary retirement) in accordance with the household’s primary objective. If the household’s objective is to preserve capital stock (a condition of wealth), the average redemption rate can be synchronized with the expected growth rate which in theory preserves the capital asset base throughout the household’s life expectancy. If the household’s objective is to deplete the capital stock prior to the expiration of life, the redemption rate can be grossly misaligned to exceed the expected growth rate which theoretically exhausts the capital stock prior to death (with the intent to subsist on
entitlement and/or benefit programs). Lastly, if the household’s primary objective is to erode capital stock (leaving fewer savings than what was started with) over its estimated life expectancy, the redemption rate can be harmonized to include some combination of preservation and depletion such that heirs are bequeathed a diminished capital stock. Therefore, the primary objective of establishing the redemption rate at or below the expected growth rate can preserve savings for inheritance purposes whereas misaligning the redemption rate above the expected growth rate can exhaust savings in a timeframe preceding or equivalent to life expectancy. The redemption strategy designed to gradually erode saving can temper growth, arrest depletion and offer better possibilities of balancing modulating consumption demands with legacy ambitions.

Provisions must be made in the redemption rate for taxes which is the rate the household expects to pay on the annual redeemed funds with consideration to its tax bracket and the characterization of the capital assets redeemed. Inflation may also cause households to make intermittent changes to redemption strategies (given the asset mix) based on the overall changes in consumption costs. For example, during an inflationary cycle, the household can redeem a greater portion of equity-like savings, relative to bond-like savings, to minimize the potential of capital asset depletion and maximize the potential for growth. When deflationary pressures loom, the household can redeem a greater portion of bond-like savings, relative to equity-like savings, for the same reasons. Although it is necessary that the household establish a redemption rate to fund consumption for wealth during retirement, equities are touted to be an appropriate hedge
against inflation (and the reason equities should be redeemed in an environment of rising inflation).

The long-term expected growth rate will vary depending on the household life cycle stage due to differences in the time horizon and risk tolerance which affects the asset mix. The long-term expected growth rate for equities, as represented by the Standard and Poor’s 500, is around 7.5% per annum whereas the long-term growth prospect for fixed-income assets, as represented by corporate and government bonds, is around 5.5%.15 Because the condition of wealth requires capital preservation, the capital allocation for late stage households in particular should comprise primarily some combination of the aforementioned asset mix. For example, the portfolio allocation for a late life cycle stage household (where involuntary retirement is most likely to occur) may be 60% equities and 40% fixed-income instruments. Given, the expected growth rates outlined above must be “weighed” to derive an overall expected growth/redemption rate of \((60\% \times 7.5\%) + (40\% \times 5.5\%)\) = \((4.5\% + 2.2\%)\) or 6.7%. The expected rate of growth for a household in the early life cycle stage will undoubtedly be higher given a different asset mix (i.e. lower ratio of fixed-income assets to equities) due to a higher risk tolerance (i.e. larger holdings of riskier assets like small capitalization equities) and a longer time horizon (i.e. better possibility for compounding). Although a higher expected growth rate for early life cycle stage households may appear to lower the minimal required value (BI) for wealth, higher consumption costs and generally lower saving rates

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15 These long-term growth rates for equities (as represented by the S&P 500) and fixed-income instruments (as represented by corporate and government bonds) serve as a proxy for the international community. Given a 50/50 mix of equities and fixed assets, the expected growth rate is said to be 4.5%. 

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will mitigate this advantage thereby making some semblance of the aforementioned portfolio allocation applicable to households across the life cycle spectrum.

To illustrate how the process works, let’s assume that the household has total monthly expenditures (consumption) of $3,000 and on-hand capital assets of $500,000. Assume further that the household has determined the long-term expected annual growth rate on savings to be 8% and estimate its prevailing tax rate on the redeemed funds to be 25%. As a reminder, when the resulting capital income stream (converted to month) generated from capital assets, given a set of parameters, matches the total monthly expenditures (funded by labor/borrowing) then the household has attained Balanced Income or the point of steady-state capital funded consumption which is baseline wealth. Any resulting amount that is less than the total monthly expenditure amount invokes the Household Dependency Index which measures the level of continued dependency on labor/borrowing income to fund consumption. Given the aforementioned parameters, it is unknown if capital stock ($500,000) is of sufficient amount to generate the minimum capital income stream required to fund wealth/involuntary retirement consumption. Therefore, the unknown value in this case is the monthly capital income stream and the economic-based Balanced Income equation that can be used to find this value follows as:

\[ C = \frac{(S \times Y \times (1-t))}{n} \]

Where:

\( C \) = the required capital income stream (the unknown variable)

\( S \) = the cumulative savings amount ($500,000)
$Y = \text{the expected growth/redemption rate (8\%)}$

t = \text{the tax rate (25\%)}

n = \text{the number of months in the calendar year (12)}

Therefore:

\[ C = \frac{((500,000 \times 0.08) \times (1 - 0.25))}{12} \]

\[ C = \frac{(30,000)}{12} \]

\[ C = $2,500 \]

Given on-hand savings of $500,000; an expected growth/redemption rate of 8%; and a tax rate of 25%; it can be seen that the estimated monthly capital income stream of $2,500 is less than the $3,000 required to sustain the current level of household consumption (if labor income were ceased at this point). Consequently, it can be deduced that the household has not reached Balanced Income due to insufficient savings; a misaligned growth/redemption rate; an inaccurate tax rate; or some combination thereof. The Household Dependency Index can now be deployed to determine the percentage distance traveled to the wealth destination and most importantly, the percentage distance remaining to be traveled which represents the household’s dependency on labor income to fund lifestyle. The geometric slope used to ascertain the two reference points then would originate at the origin (0) and project outward to the estimated capital income stream value ($2,500) to be appraised against the consumption requirement ($3,000).

Before deriving the HDI slope component, it may helpful to first understand how the HDI slope component would appear in the case where the household has reached
Balanced Income. Let’s assume that the intertemporal budget is comprised of $6,000 in disposable income; $5,000 in monthly consumption; and $1,000 in saving. Further assume that capital stock can generate a capital income stream of $5,000 per month. The graphical depiction of the HDI slope (Exhibit 1) below helps in determining the percentage distance traveled and the percentage distance remaining to be traveled. The household here has attained Balanced Income because the capital income stream ($5,000) has reached parity with consumption requirements which means the coordinates for Balanced Income and the Household Dependency Index are both $0 and $5,000. It can be seen from the graph that a solid straight line has been superimposed from the point of origin ($0) to the point of the monthly capital income expenditure ($5,000) which also happens to be the point of the calculated capital income stream. This is also visually apparent as “capital funded consumption” now commands one-half of the dark shaded area. We now have a 90° right angle with a solid line originating from the origin to both the HDI and BI which is 45°. The slope of the line at 45° is 1, which is always the point of Balanced Income (see below for calculation). The value 1 at the point of Balanced Income is an indication that 100% of the distance has been travelled and the HDI slope component of 45° means there is no further distance remaining to be travelled for baseline wealth. The household’s remaining dependency on labor income (HDI slope component) to fund lifestyle is then 0% as it may now weather an abrupt retirement (given no adverse change in consumption and/or markets). Therefore, in cases where Balanced Income has not been reached, the HDI slope component is subtracted from 1 to

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16 The slope of a line measures its steepness or grade and is always Balanced Income or the value 1 at 45°.
obtain the household’s dependency on labor (in percentage terms) to fund consumption.

This can be geometrically seen as:

\[ \text{Slope} = \frac{Y^2 - Y^1}{X^2 - X^1} \text{ or } \frac{\Delta Y}{\Delta X} \text{ or Rise/Run,} \]

where \( Y \) represents the Household Dependency Index (HDI) coordinates or consumption requirements and \( X \) represents the Balanced Income (BI) coordinates or the required capital income stream.

Given:

The HDI coordinates are $5,000, $0

The BI coordinates are $5,000, $0

Slope: \( \frac{($5,000 - $0)}{($5,000 - $0)} = 1 \text{ or } 45^\circ \text{ or } 100\% \text{ of Balanced Income} \)

HDI Component: \( 1 - 1 = 0 \) or 0% dependency on labor income for consumption

**Exhibit 1**

![Diagram showing the relationship between labor, saving, capital, and consumption]
Let’s now revisit an example where the household has not attained Balanced Income and utilize the economic and geometric expressions outlined above to find the HDI component or the household’s dependency on labor income to fund consumption. Let’s assume again that the household monthly income and consumption requirement are $6,000 and $5,000, respectively. The household is saving $1,000 per month. However, let’s now assume that the household has determined that its cumulative savings, given the prescribed redemption and tax rates, can only generate a capital income flow of $4,000 per month. To find the HDI slope component for the redemption on savings ($4,000) relative to the Balanced Income requirement of $5,000, we have:

\[
\text{Slope: } \frac{Y^2 - Y^1}{X^2 - X^1}
\]

The HDI coordinates are $4,000, $0

The BI coordinates are $5,000, $0

Slope: \( \frac{($4,000 - $0)}{($5,000 - $0)} \) or 80% of BI travelled at 36°

HDI Component: \( 1 - .8 = .2 \) indicating 20% of the journey remains to be traveled

Exhibit 2 below is a visual illustration of the condition just discussed where the household has not reached Balanced Income. From a visual perspective, it is easily seen that there is more dark shaded area above the solid line than below indicating a greater reliance on labor, relative to capital, to fund consumption. Also, it is readily deduced that the monthly shortfall in the capital income stream is $1,000 per month ($5,000 - $4,000), which supports the 20% shortfall in consumption requirement ($1,000/$5,000). Therefore,
the household is not in a position of wealth as its current level of cumulative savings is incapable of generating enough capital income to displace labor income in funding consumption (without eroding the capital base). The intertemporal implication for the household then is consumption should be decreased (which in corollary increases saving) or labor must be prolonged until sufficient savings are acquired.

In summary, the Household Dependency Index utilizes the simple economic-based Balanced Income expression and the geometric slope of a straight line to estimate the household’s proximity to and from wealth. In doing so, it provides the household, in a sense, a three-dimensional reference point of its current location relative to the destination – graphical (visual overview of labor funded consumption compared to
capital funded consumption), nominal (monthly expenditures relative to the estimated monthly capital income stream), and proportional (percentage traveled versus that remaining to be traveled). As can be seen, the Household Dependency Index does not project the amount of cumulative savings needed for consumption or baseline wealth (as projections are latent with uncertainties, i.e. not knowing what constitutes adequate consumption at the time of retirement given impending life events). Instead, the HDI when used in tandem with the minimal point for wealth (BI), lets the household know if its savings are of sufficient level to sustain consumption in the event of an untimely retirement. Having this information at its disposal is important in helping households mold intertemporal budget decisions that are conducive to wealth and/or retirement aspirations across the household life cycle spectrum.
BALANCED INCOME

Balanced Income is the condition where like growth and redemption rates on on-hand savings (capital stock) produce an after-tax capital income stream that parities consumption requirements. Balanced Income is to the wealth destination as the Household Dependency Index is to the wealth journey. In embarking upon wealth, as with any expedition, it is important for the household to begin with the end in mind. It was offered earlier that Balanced Income is the point at which capital income reaches parity with labor income. Although theoretically correct, the definition of Balanced Income will be refined and expounded upon here to expunge potential misconceptions. It is first important to reaffirm what Balanced Income is not. Balanced Income is not derived from overly simplistic personal data designed to projected cumulative savings requirements for retirement. It is not analogous with retirement in that it does not identify the point for which retirement should be undertaken, rather it is the point in which retirement can be considered because it represents the minimal point at which consumption is not compromised. Labor provides the household with the necessary income to fund lifestyle and although borrowing augments lifestyle, it too eventually becomes enveloped into ongoing expenses for which labor income must eventually
service. If this were not the case, the household would acquire different or additional labor such that sufficient labor income is produced to meet its consumption demands. Balanced Income is not the point in which capital income reaches equilibrium with labor income. It is instead the point in which capital income reaches parity with consumption demands which can be greater than labor income due to borrowing or less than labor income due to saving. Balanced Income represents the minimum amount of capital income required to transition lifestyle from period one to period two with no disruption to consumption or capital stock. Because Balanced Income represents the minimal savings requirement for wealth, households are advised to continue allocating portions of labor income to savings to produce a capital income stream in excess of the minimal requirement to circumvent adverse contingencies such as market fluctuations; life events; long life; and/or unfavorable taxes.

As can be seen, Balanced Income is a time-sensitive dynamic value derived from the household’s real-time consumption requirements relative to its capital stock and life cycle stage. In cases where capital stock is insufficient, the Household Dependency Index is invoked to approximate the household’s proximity to the wealth destination based on on-hand savings relative to consumption demands. This method of ascertaining the minimal cumulative savings required for wealth is deemed more favorable because it mitigates ambiguity due to unforeseen economic circumstances and it dispenses with the vagaries of financial markets.

The household’s allocation of labor income to lifestyle is the bases for savings because this alone determines the amount of capital income that will be required to
crossover into period two. It can be readily seen that an unpretentious lifestyle (living within the household means) not only lowers consumption requirements, it also increases saving; lowers capital income requirements; and is conducive to constructing wealth. The condition of wealth, which produces the necessary capital income stream required for steady-state consumption, makes it possible to retire at an early household life cycle stage and can allay uncertainties in retirement. In contrast, an extravagant lifestyle (living above household means) raises consumption demands and lowers the portion of labor income allocated to saving. This in turn diminishes capital stock and raises the bar to Balanced Income because the capital requirement for steady-state consumption is increased which makes it difficult to contemplate wealth during any household life cycle stage. Consequently, an exorbitant lifestyle can destruct wealth and subject even late life cycle stage households to prolonged servitude to labor for consumption.
Figure 2 above serves as a visual itinerary of the household trek to Balanced Income. It can be seen from the configuration that the journey commences with an exogenous and/or endogenous influences working in tandem and/or independently to compel the household to save. The exogenous or external factor is thought to be time which is the impetus, the stimulus, and the independent variable that drive households to contemplate retirement as perpetual time cannot be altered; is uniformly and consistently applied; and brings about aging and the eventual heightened desire for leisure. The
endogenous or internal influence is said to be behavior which is the dependent variable capable of being altered. The endogenous influence is the reaction to stimuli that compels the household to save which may or may not be exogenously induced. Consequently, the independent variable can bring about saving out of necessity whereas the dependent variable can do so, independently of the independent variable, out of foresight. The exogenous influence will bring about the behavior change from a greater need for labor to a greater need for leisure. The exogenous variable, through the continuity of time and limited life, also brings about the ability to segment households into demographics or life cycle stages based on the average age of household heads. Life cycle stages and associated life events influence lifestyle and lifestyle is analogous with the portion of labor income that is used for consumption. The reciprocal of lifestyle, or the portion of labor income that is not used for consumption, is saving. The exogenous and endogenous factors then converge at the warfare of labor and leisure and in turn compel households to allocate a portion of labor income to saving.

Although the exogenous variable may eventually induce households to save, the endogenous variable is the more important of the two influences because saving sooner rather than later, frees the household from the jostle of time and makes attaining Balanced Income less arduous. There are a host of benefits in saving from an endogenous perspective rather than an exogenous perspective. Starting early reduces the overall amount of labor income needed to reach Balanced Income because of compounding; it harnesses lifestyle which in turn reduces the amount of capital stock needed to fund wealth consumption; it can lower the household tax rate; it can increase the amount of
tax-exempted capital income which also lowers the capital stock requirement and increases the portion of capital income available for household use; it disciplines the household to the idea of saving for other goals; it can inspire the household to increase allocation to saving due to a growing capital stock; it can provide a sense of accomplishment, independence and provide options for early stage households; and perhaps the greatest benefit is it offers the opportunity to build wealth which benefits the overall economy (Adam Smith asserted that greed and the self-interest of building wealth transmutes to society as a whole). Additionally, when saving is commenced as a matter of choice rather than necessity, saving instruments can be better aligned to life cycle stages which can minimize risk stemming from misaligning products out of desperation to make up for lost time.

As the endogenous variable is conjectured to compel saving, it is important to revisit the primary attributes of behavioral influences which are thought to be labor and leisure. It was stated earlier that early stage households are prone to trade leisure for labor whereas latter stage households have a penchant for leisure over labor. If it is accepted that there is a tradeoff between labor and leisure, then it is plausible that there exists a relationship between time and money. It is proffered that labor is a function of time and leisure is a function of money. If this proves viable, then attaining Balanced Income is simply a matter of managing the tradeoff between labor and leisure as defined by their attributes time and money. If time is to labor as money is to leisure, then what is meant by the widely accepted maxim time is money? If time is money then it stands to reason that money is also time. In trading leisure for labor, the household is in essence bartering
its time (labor) in exchange for money (forgoing leisure) and in trading labor for leisure, the household is bartering its money (capital) in exchange for time (forgoing labor). The household then is willing to trade time for money when money is least abundant and money for time when time is least abundant. Stated another way, the household chooses labor over leisure when there is a greater need for money and leisure over labor when there is a greater need for time. When time is more abundant (and seemingly of lesser importance) than money, i.e. during early life cycle stages, it is traded for money and when money is more abundant (and seemingly of lesser importance) than time, i.e. latter household life cycle stages, it is traded for time. Thus, time allows households to get money and money allows households to get time. Therefore, the relationship between labor and leisure perhaps can best be explained by their attributes time and money, which posits that labor pursues money when it has more time and leisure pursues time when it has more money. So in procuring income (labor or capital) the household can deploy its time or it can deploy its money. Hence, time is money and money is time.

A different perspective on time and money from a Balanced Income application has to do with wealth being predicated on the confluence of incomes (labor and capital) which provides steady-state consumption. Thereupon, it is necessary for households to acquire both incomes if Balanced Income and subsequently, adequate wealth consumption, is to be sustained. It was stated earlier that there are two types of income available to households and there are two methods of acquiring these incomes. The two types of income are labor and capital and the two ways of acquiring them are through time and money. It has been proffered that to acquire income, the household can barter its
time or it can barter its money - the household barters time for labor to procure labor income and it barters money for capital to procure capital income. However, before the household can barter money for time (period two) it must first barter time for money (period one). Given steady-state consumption is only obtained at the confluence of these incomes; and the confluence of incomes is only obtained with capital income; and capital income is only acquired through capital stock; it is then necessary that households allocate a portion of its labor income to saving to acquire capital. The irony is that money, in the end, permits the household to barter for time which was originally used to barter for it. The purpose of Figure 3 below is to illustrate this concept in that money is first a derivative of time; time is bartered for labor and money is bartered for capital to produce labor income and capital income; and in the end, time is a derivative of money. When the household gives up its time for labor in exchange for labor income, part of labor income is apportioned to lifestyle to provide current household consumption and part is apportioned to money (saving) to provide future household consumption. Balanced Income is then attained when the product of time merges with the product of money to provide a seamless transition from labor-funded consumption to capital-funded consumption. Therefore, the illustration reaffirms that money comes full circle by giving back in time what was taken in time in the form of saving.

**Figure 3**

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Time → Labor → Labor Income → Lifestyle ← Capital Income ← Capital ← Money
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It is important to note that the concept and affect of time and money are baked into the financial documents that are used to derive the Household Dependency Index and Balanced Income. Therefore, both exogenous and endogenous factors are fully accounted. The exogenous variable of inalterable time is more difficult to quantify, however, it is believed to be embedded in the income statement as discerned by the changes in the level of labor income that can come about due to tenure (a derivative of time) and in the balance sheet as reflected by changes in capital stock due in part to compounding (also a derivative of time). However, from an endogenous or behavioral perspective, the nominal value of labor is directly reflected in the level of disposable income on the household income statement and the pecuniary value placed on leisure is easily ascertained from capital stock in the household balance sheet. The income statement then represents a repository of time spent performing labor as measured by the level of income and the balance sheet represents a repository of money allocated for leisure as measured by the level of capital stock. Therefore, labor and time are to the income statement as leisure and money are to the balance sheet. The income statement not only captures the household efficiency in trading time for money, it also provides a full account of how money is apportioned to consumption and saving. Although the balance sheet cannot decipher the ration of labor income in this manner, it can provide some clues about lifestyle given the level of assets relative to the level of liabilities (or the household net worth). The two types of income available to households then are labor and capital which can be respectively procured by trading time and trading money and in doing so, the household trades it time to the detriment of leisure and trades it money to
the detriment of labor. The income statement provides an account of labor from which labor income is derived and the balance sheet in turn provides an assessment of capital from which capital income is derived. And given the requirement that capital income, which is contained on the household balance sheet, must reach parity with labor income, which is contained on the household income statement, to transition lifestyle across periods, the namesake “Balanced Income” is coined. The term Balanced Income then represents the confluence of incomes derived from the two household financial documents that determines the minimum requirement for wealth or retirement readiness.

It is conjectured that early stage households in particular are prone to devote an inordinate amount of time and energy performing labor with aspirations of increasing labor income levels to meet growing consumption demands. Ever increasing labor income levels also come with the added responsibility of ever increasing saving because lifestyle can easily calibrate to changes in labor income and crowd out saving. Rising labor income will undoubtedly elevate lifestyle, and depending on the change in consumption relative to the change in labor income (MPC), relative high consumption can make it harder to attain Balanced Income. It is essential then to ensure the proper allocation of labor income is maintained for saving which is commonly overlooked during this period. Although an environment of rising labor income is inconsequential to achieving Balanced Income, in cases where it is not tempered with an equivalent saving rate, the subsequent ascent in lifestyle will subject the household to even greater capital income requirements at retirement. Consequently, it matters less how much the household makes, rather, how much it partakes (consumes). When it comes to labor
income, it is cautioned that households avoid being caught in a labor trap which is the belief that an abundant amount of labor income is the viable passage to wealth. Harboring such belief can lead to poor saving habits resulting in the reliance on entitlement programs and defined benefit plans, which are designed to supplement retirement income at best. Households instead should establish and maintain an intertemporal commitment to saving because trading money is more efficient than trading time in terms of acquiring wealth. This is because money, unlike time, can be relentless in its pursuit of income because it does not weary. Money can be strategically deployed around the globe such that it works tirelessly around the clock. Time (compounding) has no basis if money is not first deployed. In a sense, when money is employed for the purpose of generating income, it can be regarded as an additional bread winner in the household (with relatively no consumption demands as defined by management cost). As time can not be deployed in this manner, money (capital) has the potential to provide an income stream far in excess of that which can be earned by time (labor). Therefore, the consistent and disciplined approach to allocating part of labor income to saving can circumvent the labor trap.

It was alluded to earlier that the complexity and consternation of determining the sustainability of the capital income stream required over the retirement horizon is manifested primarily in expectation which also determines long term interest rates. Because expectation can have a disproportionate effect on financial markets, particular attention must be given to capital asset allocation especially when nearing retirement (and the primary reason late stage households are advised to have a higher exposure to lower
risk assets). When interest rates are high, bond-based savings are said to be the preferred asset class because yields are also high and locked for the life of the instruments. When market interest rates are expected to rise from this level, prices of bond-based instruments will fall to yield a return that is commensurate with rising interest rates. When rates are expected to fall from this level, then prices of bond-based instruments will rise because the locked yields become superior to that which can be acquired in the marketplace. 

Rising interest rates can generally have the adverse effect on equity-based savings because market interest rates are tied to the cost of money. Rising interest rates can be ominous for equity-based instruments because of increasing interest cost which deflate earnings and encumber security prices. In times of rising interest rates, investment capital can typically be lured to commodities which are purported to hedge against inflation. Falling interest rates can benefit equity-based instruments because borrowing costs fall too, however, deflationary pressures can have a dampening effect on product pricing which can negatively affect these instrument prices. In general, equity-based instruments can be favorable when rates are low because borrowing costs are also low which helps fuel earnings. As can be seen, expectation around interest rates can cause different asset classes to move out of lockstep and affect capital asset performance which endorses the supposition that a properly allocated capital portfolio can smooth, sustain and prolong the capital income stream during retirement. Maintaining a properly allocated capital asset portfolio, in respect to expectation, is always important in minimizing risk relative to growth, however, it is especially important during retirement where the risk of premature depletion is a concern. A high exposure to bond-based instruments in a rising interest rate
environment (inflationary pressures) or a high exposure to equity-based instruments in a falling interest rate environment (deflationary pressures) can exacerbate the decline in capital stock when coupled with a systematic redemption program. However, when interest rates are high, fixed-income assets may be preferred as opposed to equities which may be sought in an environment of low interest rates. The properly calibrated wealth portfolio helps mitigate risks and augment growth and in doing so provides sustainability of the capital income stream which may lend to predictability of performance over period two.

Determining the point of Balanced Income is relatively straightforward as it is simply a matter of ascertaining the household’s current allocation of labor income to lifestyle. This determination can be made from the household income statement in one of two ways - total expenditures, which is the sum of the three expense types or subtracting discretionary income from total household income. The household’s consumption level once obtained can then be used to determine the minimal amount of capital income required for steady-state consumption if the household were to retire at this time. The corollary question then is what level of capital stock is required to generate this minimal capital income stream to crossover into period two? If this minimal capital income stream defrays consumption, then it stands to reason that the corresponding capital stock required to generate this level of income must also represent the minimum level of required capital stock for wealth. Consequently, one risk of retiring at Balanced Income is baseline capital stock can dip precipitously below the minimal requirement due to the vagarious nature of financial markets and in doing so jeopardizes the stability of the
capital income stream required to fund consumption at period two. In fact, a pronounced and prolonged retrenchment can have a debilitating effect not only on the capital income stream but the reservoir in which it is derived thereby compromising steady-state consumption in retirement. For this reason, saving should be funneled to capital assets to the point of exceeding the minimal required amount and the reason Balanced Income is the point at which voluntary retirement should be entertained rather than undertaken.

In determining the minimal level of capital stock, let’s return to the earlier example where the household had a continue dependency on labor income for consumption. As recalled, the household had not reached Balanced Income because its capital income stream was insufficient to crossover into period two. As a reminder, the household had cumulative savings of $500,000; monthly consumption requirements of $3,000; an annual redemption rate of 8%; and a tax rate of 25%. The simple Balanced Income algebraic expression utilizing these parameters showed the capital income stream to be $2,500 per month which was a $500 per month shortfall in income required for steady-state consumption at period two. Therefore, it was determined that the household’s capital asset base was too low to fund consumption at its current level. The question then is how much capital stock, in this case, is required to fund the household’s current consumption demands of $3,000 per month. As a reminder, the time parameters used to determine lifestyle and income should be consistent (i.e. monthly vis-à-vis monthly, quarterly vis-à-vis quarterly, etc.). Given the household financial schedule is generally monthly (labor income and household expenses are typically transacted
monthly), the capital income stream is also converted to an equivalent schedule to promote simplicity.

Exhibit 3 below is a visual illustration of the household’s intertemporal decision as it relates to ascertaining the required level of capital stock. It can be seen that labor income is $4,000 per month and expenses are $3,000 per month which leaves $1,000 per month for saving. The requirement for Balanced Income here is that capital stock must generate $3,000 per month in after-tax capital income without jeopardizing the base (growth rate matches the before tax redemption rate). Note that the algebraic expression used earlier to derive the minimal capital income stream can also be used to ascertain the minimal capital stock required to crossover into period two. Therefore, the unknown variable in this case is capital stock, rather than consumption, which is represented by the variable “S” in the expression. We again have:

\[
C = \frac{(S \cdot Y \cdot (1-t))}{n}
\]

Where:

\[
C = \text{the required monthly capital income stream ($3,000)}
\]

\[
S = \text{cumulative savings amount (the unknown variable)}
\]

\[
Y = \text{the expected growth/redemption rate (8%)}
\]

\[
t = \text{the tax rate (25%)}
\]

\[
n = \text{the number of months in the calendar year (12)}
\]

Therefore:

\[
$3,000 = \frac{(S \cdot 0.08 \cdot (1-0.25))}{12}
\]
$3,000 = (S \cdot 0.06)/12

$36,000 = S \cdot 0.06

S = $600,000

It was seen earlier that a capital asset based of $500,000 generated $2,500 per month in capital income (at an 8% redemption rate and 25% tax rate) which fell short of the $3,000 required for retirement consumption. The thumbnail estimate shows that the household will need a minimum amount of $600,000 (given an 8% growth and redemption rate) in capital assets to generate an after-tax monthly capital income stream of $3,000 per month to fund steady-state consumption without eroding the savings base.
Again, the Household Dependency Index and Balanced Income may be useful in helping households mold intertemporal decisions in accordance with wealth aspirations. Because the household has cumulative savings that are short of the minimum requirement to retire, it has continued dependency on labor income for consumption. Consequently, the household has several options at its disposal – it can either lower consumption which raises saving and quicken its pace to Balanced Income (the magnitude of change is contingent upon its goal) or it can continue along its current path with the understanding that saving must be continued until it reaches the minimal capital stock (barring no increase in consumption demands).

As a reminder, this information is provided for illustrative purposes only and is not meant to imply that an 8% redemption rate or a 25% tax rate are universal values used to determine Balanced Income. It should also be noted that the capital income stream purposefully excludes proceeds from government entitlement and/or defined benefit plans for two reasons – first, the fate of these programs are precarious and should not be relied upon as the primary source of retirement income and second, Balanced Income is built on the premise of self-reliance and the position that it is the household’s responsibility to acquire the necessary provisions for period two consumption. As a final note, although the household’s primary residence is an asset class that is capable of generating an equally reliable income stream for retirement, in the form of a reverse mortgage, home equity is generally tapped as the last resort (when the household has exhausted all other avenues for income). The idea is to create a sufficient supply of capital stock to avoid having to liquidate the primary residence or sap home equity (for
which the household may be ineligible depending on the age in which involuntary retirement occurs) for the purpose of wealth. Lastly, excluding entitlement and pensions from the capital asset base eliminates uncertainty and bestows them to the position for which they were originally intended, supplementary income, which means these programs should be looked upon as a cushion or safety net to the household’s capital stock position.
WEALTH

Wealth is a repository of stored consumption. There is no universal value that signifies it. It is a distinct value for each household. Baseline wealth (as represented by Balanced Income) is the minimal required savings (capital stock) necessary to produce an after-tax capital income stream (from like growth and redemption rates) that exacts consumption (funded by labor income and/or borrowing) without compromising capital stock. The most rudimentary description of wealth in the financial community is positive net worth which is total assets in excess of total liabilities. Perhaps the more definitive description of baseline wealth can be viewed as capital income (which is a derivative of total assets) at parity with consumption requirements (which is a derivative of total liabilities). It is appropriate to begin the discussion on wealth with the amalgamation of period one and period two as illustrated by Exhibit 4 (below) with labor income and capital income intersecting at the point in which consumption demands can be transitioned. Labor creates labor income which is located vertically on the left side of the graph and capital creates capital income which is located vertically on the right side of the graph. The consumption level which is located horizontally along the graph is indifferent to being served by either. The illustration suggests that time is traded for labor
income until consumption is procured; money is traded for capital income until consumption is mirrored; and Balanced Income is the confluence of incomes at consumption. In this illustration, Balanced Income is procured and mirrored at the $3,000 level which is an indication that consumption initially defrayed by labor and/or borrowing can now be consigned to capital. Thus, Balanced Income is the point where the household is positioned to fund lifestyle with either labor or capital and voluntary retirement can be contemplated.

The exhibit also shows that surplus labor income (over and above that required for consumption in period one) is saving (discretionary income) which offers the opportunity to optimize consumption, reduce debt, and/or squirrel away to capital stock. Households generally have the opportunity to save a portion of gross labor income prior to receiving disposable income or to pay themselves before taxes are assessed. If such an opportunity exists, then discretionary income represents additional saving to expediently build wealth. If the household is not afforded the opportunity to save before disposable income, then discretionary income is evermore important for the purpose of wealth.

When discretionary income is allocated to debt and/or saving, Balanced Income is the frontier where labor engages leisure and wealth is the probable outcome at any life cycle stage. When discretionary income is plowed back into consumption, retirement is postponed and the probability for wealth can be imperiled. It is critically important to note that the misappropriation of discretionary income does not jeopardize retirement because retirement is imminent. Rather, it jeopardizes consumption in case of an untimely retirement and/or the possibility of wealth in case of a timely retirement. It can
be visualized from the graph that if all disposable income is used for consumption, then
discretionary income is nil as there is no saving. When there is no saving, the household
is engaged in the highest level of consumption possible (barring leverage) relative to
labor income. Such consumption level can subject the household to the highest
dependency on labor where provisions for saving can only be made by acquiring
additional labor income or by creating slack in consumption. When labor income falls
short of consumption requirements (negative discretionary income), the household is
engaged in deficit or leverage consumption which is a claim against future labor income
(and future opportunities to save). The use of leverage to elevate lifestyle eventually gets
enveloped into recurring consumption thereby exacerbating the situation as deficit
consumption feeds on itself forcing households to juggle expenses (a situation
affectionately referred to as robbing Peter to pay Paul) which handicaps current and
future liquidity and saving. This condition can rapidly spiral out of control, even
becoming dire when the household is unwilling or unable to increase income or curtail
consumption to lessen its dependence on borrowing as insolvency may become the viable
alternative.

The capital side of the exhibit shows that surplus capital income (over and above
that required for consumption in period two) is buffered/precautionary wealth. This side
shows that when capital income reaches parity with labor income, Balanced Income is
achieved and lifestyle can be sustained. Any amount above this threshold is provision for
adverse changes in consumption, taxes, and/or capital stock. Discretionary income in the
form of saving generally ceases at retirement because labor is discontinued thereby
requiring the household to commence mining (dissaving) capital stock for consumption. When labor ceases and leisure commences, the household will undoubtedly find capital income below, at parity, or above consumption requirements. When the capital income stream is factored below consumption, consumption must be decreased and/or supplemental labor must ensue to meet consumption requirements. When capital income is at parity with consumption, Balanced Income is achieved and consumption may be sustained. When capital income is in surplus of lifestyle requirements, the household has buffered its wealth which acts as insurance against adverse changes. Buffered wealth then is capital income in excess of consumption requirements and it is achieved through precautionary saving (which is insurance against uncertainties) to the point where the expected income stream from capital exceeds the expected consumption requirements.
Given labor income in surplus of consumption requirement is saving and capital income in surplus of consumption requirement is buffered wealth, why then is saving and buffered wealth not one in the same since both are surplus incomes over consumption requirement? In other words, why is labor income in excess of consumption not wealth or why is capital income in excess of consumption not saving since both conditions offer the opportunity to optimize consumption? When surplus labor income is used to optimize consumption, it simply offers the opportunity to move to a higher indifference curve which is often misconstrued as wealth. When surplus labor income is used instead for saving, higher consumption is eschewed for the purpose of acquiring wealth. Because households engage in dissaving during retirement, the decision to save surplus capital
income is simply a matter of redeploying it back to its origin where higher consumption is sacrificed for the purpose of prolonging, insuring and/or acquiring greater wealth. The point conjectured here is wealth is a derivative of capital rather than labor. The conventional definition of wealth is somewhat nebulous in that it speaks of “an abundance of valuables or resources” however, a standard measurement for abundance is not offered. Possessing an abundance of valuables has little relevance if it is accompanied by an abundance of expenditures (claims) against these valuables - such a condition can hardly be construed as a position of wealth. If Balanced Income is a quantifiable value proffering steady-state consumption, then does that which exceeds steady-state consumption constitute abundance and is also quantifiable?

It is proffered that no amount of labor income (or savings) constitutes wealth when labor is the foundation for ostentatious consumption. This is because wealth buttressed by labor (trading time) is inorganic when it does not offer independence or freedom from the requirement to trade labor to perpetuate such consumption level. Furthermore, labor income is an income statement item, therefore, defining wealth (exclusively from the income statement) based on a certain level of labor income and/or lifestyle with disregard for capital is unfounded. The balance sheet is the position of wealth for the business and this is no less the case for the household. Capital is a balance sheet component and wealth is cumulative capital that generates a capital income stream required to fully defray consumption requirements. Wealth then is acquired through capital income because it offers the opportunity for households to sustain lifestyle free from the constraints of time (labor), therefore wealth transcends pecuniary implications.
It was posited earlier that time is money and money is time. Wealth then is the position of money that provides time for the household to spend as it chooses. Because wealth is not a function of time, labor cannot be the foundation that sustains it. Wealth is a function of money that has the potential to fund a lifestyle, whereby through its capital assets base, it offers the gift of time and money, and the truce is reached where time is no longer required to acquire money and money is no longer required to acquire time. Therefore, real wealth is entombed in capital because it offers the choice of time and money free from the confinement of labor.

This rudimentary description of wealth is vital to ensure households do not view wealth as a prodigious amount of labor income or capital stock that is incapable of being acquired. In an effort to provide a more germane description of wealth, imagine a household with one million dollars in capital assets. With this bit of information, one might readily assume wealth. Now imagine the same household with two million dollars in liabilities. It suddenly becomes intuitively apparent, through cognitive extrapolation of net worth that one million dollars in assets is of little consequence if it is accompanied by two million dollars in liabilities. In a second example, imagine a household that earns half a million dollars in labor income. Again, wealth might come to mind until it is recalled that labor income is an income statement component which confines the household to labor to procure and sustain a level of coveted consumption. These examples were provided to hone the importance of constructing and maintaining household financial documents for the purpose of quantifying true wealth.
There are distinct descriptions of wealth for period one and period two. The description of wealth during period one was given as net worth which is the resulting value after all liabilities are subtracted from all assets. As it relates to retirement, there are several problems with defining wealth in this manner with the most obvious being what amount of net worth is required in case of involuntary retirement. Another concern is the net worth value takes into account the liquidation of an essential asset (primary residence) to dissolve liabilities (which may include the primary residence’s mortgage balance) that must eventually be replaced (on the household balance sheet), in some form, at an unknown cost which potentially restores the essential consumption as a liability. Therefore, it is generally not included as a source for income because in doing so makes it difficult to know what amount of the asset can be relied upon for consumption. For this reason, liquid net worth is a better measurement of wealth during this period because it excludes the primary residence as both an asset and liability from the net worth equation. Excluding the primary residence not only removes much ambiguity around the nominal capital income stream that can be relied upon for consumption, it also attenuates the reliance on a high viscosity asset as the primary source of income. The value for either measurement of wealth can be negative or positive. A negative value, for obvious reasons, is of grave concern, in particular for late stage households, because of its implication for retirement. Positive values merit interpretation when compared with other households of similar demographics, however, as stand alone values they provide little information about retirement-readiness due in part to revolving expenditures without balances. Therefore, to be of practical use, it is
necessary to deploy Balanced Income and the Household Dependency Index to quantify the household’s current wealth position relative to its minimal wealth requirement. In this way, wealth for period one, as defined by net worth and liquid net worth, will then have relevance for period two. The definition of wealth during period two is proffered as capital income stream at equilibrium with consumption requirements which is an indication that the capital stock has been subjected to the purview of Balanced Income. It stands to reason that the gauge for wealth during period two, as measured by capital income relative to consumption, is the corollary to the measurement for wealth during period one as assets relative to liabilities.

It is important to note that all measurements of wealth are derived exclusively from the balance sheet (using assets and liabilities components). Therefore, before the household goes about building wealth, it is important to expunge the belief that wealth is an income statement component. In other words, high labor income, which is an income statement component, is not the prerequisite for wealth. Although high labor income can provide excess comfort (lifestyle) to the household in period one, it is not tantamount to period two because wealth defined in this manner is superficial and potentially fleeting as labor income can be abruptly ended. In contrast, it is highly improbable that a capital income stream stemming from a well-diversified capital stock portfolio should succumb to such an abrupt demise. The authentic description of wealth is balance sheet based, potentially sustaining and, as discussed earlier, provides the gift of leisure. The household then is incapable of earning or saving its way to pecuniary wealth but is highly capable of managing its way there. Hence, high labor income is not the precursor to wealth just as
low labor income is not an encumbrance. All that is required for wealth is labor income and the intertemporal decision to allocate an appropriate amount of discretionary income to assets and/or liabilities because it matters least what is earned, rather, what is done with what is earned.

It was discussed earlier that there are exogenous and endogenous influences inducing households to save and that the exogenous influence compels households to save due to the passage of time. Households eventually come to realize through advancing age that retirement is imminent which invokes the endogenous influence to make the necessary provisions. An exogenous-based stimulus that brings about saving is rarely the prescription for wealth. However, exogenous invoked wealth can still be attained through a preeminent behavior to squirrel away an extraordinarily high percentage of labor income to the appropriate factors. In this regard, it is labor, instead of compounding, that does the bulk of the heavy lifting. Endogenous based saving stems from the intuition and foresight in knowing that retirement is imminent (and potentially involuntary) which compels households to begin a saving plan early on in the life cycle. In this way, labor income is spared the arduous task for growth which now befalls compounding (the reward for starting early) which makes attaining wealth highly probable. Because endogenously induced saving offers the greater potential for procuring wealth, it is beneficial to point out what some of these behaviors might be. Before doing so, the endogenous behavior to acquire wealth must be shared amongst household heads otherwise dissention can easily derail such aspiration. The foundation for wealth then
begins with a shared vision with household heads pulling in the same direction (in case of a single household head, the battle is half won).

The hallmarks of the endogenous behaviors for wealth are discipline, patience, and perseverance. Discipline is a behavior trait that must be exercised to prevent lifestyle from completely enveloping labor income and it is simply a matter of prioritizing consumption by choosing between what the household wants now and what it wants most. Discipline compels households to make the concerted effort to relegate a higher than average portion of disposable income to saving. As labor income is expected to rise over household life cycle stages, it is incumbent upon early stage households to ensure that the percentage change in saving remains static, at minimum, to the percentage change in income and that the change in the saving rate, for latter stage households, to eventually exceed the change in income. Patience is another behavior trait that is essential for wealth due to the certainty of hiccups in the market trajectory. It is the acknowledgment that capital markets have fallen many times but have always managed to get back up. Far too often attentions are diverted and/or opportunities are squandered fretting over economic, political or market affairs that are outside the realm of the household’s control. Patience is that which helps the household reframe from obsessing over things it cannot control and let the worry of others weigh on market prices which can create attractive buying opportunities. The final endogenous trait worthy of mentioning is perseverance which is the unwavering commitment to saving even when current income falls below permanent income expectation. Perseverance is not permitting market downturns or unfavorable transitory income to disrupt the household’s
intertemporal decision to save. There are pundits abound with personal agendas that are incongruent with that of the household which can cause the household to waver on saving decisions. Households that remain committed to cautious and consistent saving understand that long term is not the sum of short terms and have the better opportunity to acquire wealth. An ancillary behavioral trait that is equally important for wealth and worthy of mentioning is the household must have some temperament for risk. In the world of investing, risk has seemingly become synonymous with deceit and dishonesty as households have moved in droves to dispense of it. When only perpetual growth can be tolerated, low-yielding fixed-income instruments are generally the investments of choice. Because time is a variable in acquiring wealth, the expedient acquisition of wealth requires some level of appreciation for the Rule of 72. Households should have minimal and calculable exposure to risk to unearth rewards that expediently builds wealth. Hence, the household must be willing to lose to some degree because winning is improbable when losing is impossible.

The greatest impediment to wealth creation is debt and the most pernicious of them all is elective consumption. Elective expenditures are the consummate assassin of dreams because they come guised in many forms and shrouded behind just as many excuses. It was discussed earlier that these are contractual and non-contractual expenditures that masquerade as essential to life and living. Some essential consumption are benign to building wealth because of their inconspicuous nature, such as water and lighting, and their low utility diffusion stemming from the fact that they are required and not desired. When used appropriately, the benefit and purpose of essential consumption is
to augment wealth and not detract from it. Unfortunately, when elective expenditures become essential consumption, they often become detrimental to wealth when they move ostensibly to the forefront of ostentation garnering coveted responses which fuels utility and fiscal irresponsibility. Examples are electronic devices that are over-subscribed for convenience and the array of features; and transportation devices that are over-subscribed in quantity and quality. The opposite of essential consumption is non-essential consumption which can be either contractual or non-contractual but always unnecessary for life or living. Non-essential consumption is elected consumption and because life is for living, such consumption can be necessary for mental and physical well-being and happiness. However, the problem with non-essential consumption is the derived euphoria can often intoxicate households into overindulging at the expense of saving. Making matters worse, households are often unaware of the cost associated with such preoccupations. The household income statement gives a pecuniary account of elective consumption and another reason it is a requirement for building wealth. Subscribing to extravagant essential consumption and/or overindulgence in non-essential consumption pilfers saving thereby making it difficult to create wealth. Curtailing capricious expenditures (which increases saving) is posited as the basic tenet for acquiring wealth.

Wealth starts with crafting and maintaining a household income statement and a household balance sheet. These financial documents are pertinent to managing budgets and paramount to the Household Dependency Index and Balanced Income for determining proximity and acquisition of wealth. The Household Dependency Index can be viewed as the wealth ex ante retirement indicator whereas Balanced Income as the
wealth ex post labor indicator. Net worth is also a wealth indicator as is liquid net worth which imposes more stringent requirements on wealth. The Balanced Income equation utilizes net worth and liquid net worth derivatives, with a prescribed set of assumptions around redemption rates and taxes, to gauge proximity to wealth. As was demonstrated earlier, it does this by utilizing the geometric slope of a straight line stemming from the origin (0) to the estimated capital income stream coordinate relative to household’s consumption requirements. It was shown that the slope of the line at the point where capital income and consumption intersect is Balanced Income which is 45° or 1 representing a one-to-one ratio between labor income and capital income in that capital income is capable of replacing labor income without compromising lifestyle. Because the value 1 represents the point of Balanced Income, any slope value that is less than 45° is an indication that capital income has less than a one-to-one ratio with consumption therefore the slope value is subtracted from 1 to obtain the HDI component or the household’s dependency on labor income. Conversely, slope values that are greater than 45° are an indication that Balanced Income has been breached and wealth has been buffered. The Balanced Income value of 1 is subtracted from these slope values, which is an indication that saving has traversed beyond Balanced Income where the nominal value of buffered wealth can be obtained. The nominal value of buffered wealth can be observed by:

\[ W = (BI \times HDI \text{ Component}) \]
To demonstrate, suppose the household has current consumption requirements of $1,000 per month and has $200,000 in capital stock. The minimum capital income stream required for labor-free consumption at involuntary retirement (BI) is then $1,000 per month. In using an 8% redemption rate coupled with a 20% tax rate, the household can derive its estimated capital income stream and most importantly, its nominal wealth value using the familiar equation:

\[ C = \frac{(S\times Y)(1-t)}{n} \]

\[ C = \frac{($200,000\times .08)(1-.20)}{12} \]

\[ C = $1,067 \]

To find the HDI slope component, we have:

\[ \text{Slope} = Y^2 - Y'X^2 - X' \]

\[ \text{Slope} = ($1,067 - $0)/($1,000 - $0) \text{ or } 106.7\% \text{ of BI at } 48.015^\circ \]

\[ \text{HDI Component} = 1.067 - 1 = .067 \]

To find the nominal value of buffered wealth, we have:

\[ W = \text{BI} \times \text{HDI Component} \]

\[ W = $1,000 \times .067 \]

\[ W = $67 \]
At first glance it would appear unlikely that $200,000 in capital stock would constitute a position of wealth. However, because the capital income stream derived from this level of capital stock is in excess of that required for consumption, the household is offered the opportunity to optimize consumption from capital (without compromising the capital base) which is the prescribed definition of buffered wealth.

As can be seen, defining wealth in this fashion, as opposed to net worth, has much to do with cash flow. Although net worth also represents a position of wealth, it has more to do with the repository of assets relative to the repository of liabilities with no regard for ongoing non-obligatory consumption demands. Defining wealth via net worth can be problematic as it is not uncommon for households, like businesses, to find themselves asset-rich and cash-poor. Such a condition exists when cash/income is locked in assets causing insufficient cash/income flow to fund obligatory and revolving consumption demands which can lead to insolvency for businesses and households alike. The household is particularly vulnerable to this condition because empirical data suggests the bulk of its wealth (as defined by net worth) is entombed in the primary residence. Because the primary residence is a medium viscosity asset at best (liquidated in tranches) or high viscosity asset at worst (liquidated in whole), it is incapable of generating an income stream that can be specifically tailored to consumption demands which can lead to insufficient income flow.

Before discussing how to go about building wealth, it is first necessary to reintroduce a familiar term with an unfamiliar name – working capital. Working capital is a term customarily reserved for businesses and is derived from the business balance sheet.
by subtracting current liabilities from current assets. Because the household balance sheet is not structured in this fashion, working capital cannot be derived in this fashion. Nonetheless, working capital is still applicable and accessible for households in that it is found on the household income statement under the familiar nomenclature, discretionary income or saving. It was stated earlier that households have much to learn from businesses when it comes to managing resources for the purpose of building wealth. The critical takeaway here for the household is to understand the importance and implication of working capital in building wealth. The first step to building wealth is to start with the proper mindset which dispenses with the term “discretionary income” in favor of “working capital.” This is necessary because the term “discretionary income” conveys the household has at its “discretion” to do with this “income” as it pleases. This cannot be the case for building wealth. The term “working capital” is no misnomer and its implication for building wealth cannot be overstated. Discretionary income is working capital and it is that which remains of disposable income after consumption. Therefore, working capital is saving. It is saving that must be put to “work” (employed) to procure a level of “capital” (assets) that generates an income stream which, at minimum, meets that required for consumption. When working capital is used instead to optimize consumption, the general misconception is the household has acquired wealth. Additionally, employing working capital exclusively to building capital stock is not the prelude to wealth. As was seen earlier, one million dollars in assets is not a position of wealth when accompanied by two million dollars in liabilities. It may be intuitively apparent at this point that the household is incapable of earning or saving its way to
wealth (wealth trap), rather, it can only manage its way to wealth through its intertemporal deployment of working capital to the Levers of Wealth.

The household has at its disposal two levers for acquiring wealth. These levers, the Levers of Wealth (LOW), are assets and liabilities. Building wealth entails employing working capital to increase assets, decrease liabilities, or some combination thereof. Figure 4 below provides a conceptual depiction of the LOW with working capital (WC) at the inflection point (input) of net worth (output). It can be imagined that when working capital is employed exclusively to assets, the top lever rises relative to the bottom lever which causes the two levers to move apart thereby increasing net worth (wealth). When working capital is employed exclusively to liabilities, the bottom lever falls relative to the top lever which also causes the two levers to move apart and in doing so also increases net worth.
Figure 5 below is an extension of Figure 4 depicting how working capital can be simultaneously employed to both levers to grow net worth. In this depiction, imagine the household has $100 in working capital and has elected to divvy it equally between assets and liabilities. As can be seen, assets are increased each month by $50 and liabilities are decreased each month by $50. The net effect on wealth is no different than had the $100 been solely “employed” to either assets or liabilities. These illustrations show that wealth has as much to do with the scarcity of things (liabilities) as it does with the abundance of things (assets). In fact, the path of least resistance to building wealth is more often than not the liabilities lever because eliminating debt creates a multiplier effect in that fewer liabilities means fewer monthly expenses, which translates to even more working capital available to eliminate even more liabilities (folding down debt). And fewer monthly expenses (consumption) means less capital stock is required to attain wealth. When the household is faced with the conundrum of where to employ working capital (to pay down
debt or increase saving), the short answer is, it doesn’t matter because the outcome is the same. What does matter is the household must employ working capital to the Levers of Wealth, instead of optimizing consumption, which is the general tenet to building wealth. The takeaway here is the household can neither earn, consume nor save its way to wealth, rather it must manage its way through the appropriate allocation of working capital to the LOW.

**Figure 5**
CONCLUSION

The household is deluged with confusing and conflicting economic information around its fiscal obligations. On the one hand, the household is advised to spend (consume) to stimulate the economy and on the other, it is admonished for saving too little. It is little wonder that the average saving rate in many of the world’s developed countries has continued to fall (by roughly 23% between 1985 and 2004) even as nominal labor income has gradually increased. Declining saving rates coupled with inclining labor incomes can mean the marginal propensity to consume has precipitously risen; inflation has outpaced earnings; or perhaps some combination of the two. There are economic benefits for consuming as there are for saving. One primary benefit of consumption is it increases productivity demands, which generally translates into economic prosperity (higher GDP) and a better quality of life on so many dimensions including higher employment levels and wages. One benefit of saving is it provides institutions with greater supplies of private capital to lend which is positive for nations because it keeps interest rates low which helps borrowers, and all things being equal,

\[\text{17 The supposition is hyperbolic discounting or the lack of fiscal discipline, rather than declining real income, is the primary reason households under-save.}\]
drives up wages, because employers don’t have to spend as much on financing capital investments. In essence, consumption sustains jobs and saving creates jobs.

Economists remain perplexed over U.S. households inability (due to a decline in real wages) or unwillingness (due to an incline in hyperbolic discounting) to save in an environment where nominal income and consumption continue to rise. It is economically unsustainable for consumption to continually outpace income as it is for income to continually outpace productivity. Although it would appear that the importance of consumption has resonated with households, the benefits of saving have seemingly fallen on deaf ears. When it comes to saving, households are awash with instructions on what to save, when to save, and where to save. Discerning the barrage of regurgitated financial rhetoric orchestrated for the populace (traders and investors alike) is undoubtedly daunting as households struggle to make sense of it all. Compounding the situation, households are informed that pension and entitlement programs are of dire circumstance where the intent is to convey that it is increasingly becoming the household’s primary responsibility to acquire the necessary provisions for retirement. Regrettably, far too many households continue to abrogate this responsibility and it is feared that if the saving rate does not improve, middle class households will soon give way to those that have acquired wealth and those in deprivation.

Somewhere and somehow the necessity of saving has gone awry where company matched saving plans are rebuffed and individual retirement accounts that promise tax-free redemption have become a complete enigma. And although the number of specialty saving instruments has proliferated over the decades, which makes acquiring the
provisions for wealth/retirement well within reach, many people have lost sight of the true reason for working and consequently have failed to avail themselves to saving opportunities. Given the large number of households that are forced into retirement coupled with the high percentage of people who profess to being disenchanted with their work or place of work, one would think that saving would be embraced as insurance against the risk of an untimely retirement and/or as passage to reducing time spent performing unpalatable work. But then again, perhaps Uncle Lew’s ultimatum to learn to love one’s work has permeated more households than the Opinion Research poll suggests.

The economic tools introduced here (the Household Dependency Index and Balanced Income) were designed to qualify and quantify wealth and in doing so, encourage households to structure intertemporal budgets for wealth in case of involuntary retirement, or otherwise. The HDI and BI are dynamic metrics that provide a real time assessment of wealth in that a change in consumption, taxes and/or expected market performance also changes the requirement for and proximity to wealth. This approach differs from alternative methods which rely on static or obscure information which can drive the wrong behavior by making saving a condition of income whereby suspension is tenable whenever consumption is compromised.

The supposition that anemic saving is manifested in stagnant real incomes is seemingly improbable in an environment where changes in consumption continually trump changes in income relative to inflation. Empirical evidence is suggestive of the hypothesis that households have subjugated saving for the benefit of greater consumption
and therefore hyperbolic discounting, rather than real income growth, may possibly be the primary culprit inhibiting saving. When households inadequately save, they not only harm themselves, they inevitably burden society on so many dimensions. The implication of a low saving rate suggests people have lost sight of the true purpose of work. People work for income (labor and capital) to sustain consumption across periods. Consequently, people work in pursuit of Balanced Income.
BIBLIOGRAPHY


