Operating and Financial Leverage in New Gen Y Households

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Advising the Financially Vulnerable New Gen Y Household (*Trends and Issues*, February 2016)

Background

Desire to set the groundwork for the “Atlanta Project,” a longitudinal clinical study of urban households…using methods similar to “Portfolios of the Poor,” (Collins et.al, 2009; Princeton University Press)

Collaborate with Center for the Economic Analysis of Risk at Georgia State

Background

Build on the financial planning literature, especially…

"The Intergenerational Transmission of **Income Volatility**," by Shore (JBES, 2011)

…fathers' income volatility passed on to sons

"Wealth Accumulation and the Propensity to Plan," by Ameriks et al. (QJE, 2003)

…importance of understanding **current spending**

Goals

Putting income and expense pieces together with a clinical study of households' financial statements, practices, and context

Understand "top to bottom line" sensitivity

Fold into discussion of advisory channels and policy

Focus Today - “Gen Y”

Gen Y also referred to “millennials”

There is no precise age cutoff, but those with birth date ranging from early 1980s to early 2000s.

My data gives the chance to look at “new households”

Data: Student Financial Plan

Large, urban university with 50% of under-graduates Pell Grant eligible

Course project for senior-level undergraduates in my personal financial planning class. I have read well over 1000 plans since 1999.

Plan requires a current balance sheet and a *pro-forma* income and expenditures statement

Financial Plan

Includes a one-page summary of the “client”

Describes the key elements that have influenced “money personality”

Reveals the intra- and multi-generational complexities of millennials’ finances (footnotes)

Family as a risk-bearing unit

Balance sheet – Snapshot of Market Values

Assets	Liabilities
Cash	Credit Card Balance
Short Term Assets	Student Loan Balance
Investments	Other Loan Balance
Ordinary Accounts	Mortgage Balance
Tax-Deferred Accounts	**Net Worth: A - L**
Real (e.g., residence)	
Use (e.g., personal property)	

Footnotes: Family, Government (Social Security), Private Insurance, Employer Benefits

Pro-forma Income and Expenditures

Cash Inflows (*for the year 20xx*)

- Earned (e.g., W-2, 1099)
- Unearned (e.g., interest/dividends, family, pensions, etc.)

Cash Outflows (*for the year 20xx*)

Income Taxes	Food	Transportation
Social Sec/Medicare	Insurance	Debt payments
Rent/Mortgage	Utilities	Clothes/Personal
Prop Tax/Maintenance	Charity	Entertainment/Phone

Expected Surplus (Deficit) = Inflows - Outflows

"Median" New Graduate – Balance Sheet

Assets	Liabilities
Cash -$0	Credit Card Balance - $2,500
Short Term Assets - $500	Student Loan Balance - $25,000
Investments - None	Other Loan Balance - $2,000
Real - None	
Use (**phone**) - $1000	**Net Worth: ($28,000)**

Footnotes:

Family – Support **from** is common but so is support **to**

Government - Very skeptical of Social Security

Private Insurance – About 20 percent on parents' health plan. Over 50 percent on parents' auto insurance.

"Median" – Income and Expenditures

<u>Cash Inflows</u>

Earned - $30,000 (mix of W-2 and 1099)

<u>Cash Outflows</u> *(rounded to nearest $100)*

Fed.Inc. Tax	$2,300	Food/PersCare	$4,000
GA.Inc. Tax	$1,200	Transportation	$3,000
SocSec/Med.	$2,300	Insurance(s)	$1,000
Rent/Utils	$7,200	Clothes	$1,000
Student Loan	$2,000	CCard (min)	$1,000
Entertainment/phone	$2,000	Misc.	$1,000

Expected Surplus: $30,000 - $28,000 = $2,000 (6.7% of gross)

Household Leverage - Operating

What percentage of your annual “operating” expenses are **fixed**?

Once you choose a lifestyle, most expenditures are fixed.

Can have upward shocks, but difficult to cut expenses deeply without lifestyle upheaval (e.g., breaking lease)

Some expenses are **mechanically variable** (e.g.,income and Soc. Sec. taxes) and others are “**discretionary**”

Return to the Student Pro-Forma

Inflows	$30,000
Operating Expenses **(*present*)**	$25,000
Operating Cash Flow	**$5,000**
Financing Expenses **(*past*)**	$3,000
Expected Surplus ***(future)***	**$2,000**

Finding the balance among past, present, and future consumption is the key to financial planning.

Degree of Operating Leverage (DOL)

DOL measures the sensitivity of operating cash flow to changes in inflows (earned income)

In the long run, all household expenses are variable. But consider the short run.

Suppose you got a percent raise or pay cut…income taxes do vary as well as *discretionary* spending…

Example: 40 percent of operating expenses are variable.

DOL=(Inflows-Variable Expenses)/Operating Cash Flow

For the typical graduate:

$$\text{DOL} = ((30{,}000-(0.4)(25{,}000)/5{,}000) = \mathbf{4}$$

Degree of Financial Leverage (DFL)

Measures the sensitivity of surplus to changes in operating cash flow

Financing cash flows can be measured as required minimum payments for *past consumption*.

Assume credit cards and student loan payments in the typical case.

DFL = Operating Cash Flow/(Operating Cash Flow – Financing Expenses)

For the typical graduate:

DFL = ((5000)/(5000-3000)) = **2.5**

Degree of Total Leverage (DTL)

Measures the sensitivity of surplus to changes in inflows (earned income)

DTL = DOL x DFL

For the typical graduate: **4 x 2.5 = 10**

Lots of magnification from the top to the bottom line!

Two Sides of Leverage - UpSide

Graduate gets a $3,000 (10%) raise to $33,000

Income and Soc.Sec. taxes go up $900

Entertainment goes up $100

Operating expenses rise $1000 (4%). Suppose other expenses (operating and financial) stay the same

Percentage Change in inflows: 10%

Percentage Change in surplus: 100%

Surplus moves from $2000 to $4000.

Two Sides of Leverage - DownSide

Grad earns $3,000 less than expected (cut hours)

Income and Soc.Sec. taxes go down $900

Entertainment goes down $100

Suppose other expenses (operating and financial) stay the same.

Percentage Change in inflows: -10%

Percentage Change in surplus: - 100%

Surplus moves from $2000 to $0

Leverage Beyond Gen Y

Households in general have higher levels of total leverage than they realize

Consider Baby Boomers who have bought a home in a certain neighborhood…what is the impact on Furnishings, Cars, Entertainment, etc.

Once lifestyle is struck, expenses are largely fixed!

Many Boomers can have large amounts of credit card and home equity debt spent on past consumption

Vulnerability and Shocks to Inflows

Consider a negative shock to inflows (earned)

In my early years at GSU (pre-2008), this was much less of a consideration, but since 2008, issue front and center…

- Unable to obtain and/or loss of job and more reliance on part time and “independent contractor” (1099) status

High total leverage magnification!

Vulnerability – Expense Shocks

Typical budget has little or no contingency funds

Assume an "Upward Shock" to Expenses

- What happens if the transmission in your 2004 Honda Accord dies?

Answer:

- Use short term assets to pay for repair…oops!
- Use credit card for repair…nope! - 2009 Act
- Ask family member for help…or a friend
- Getting to work?

Vulnerability?

"Two-thirds of Americans would have difficulty coming up with the money to cover a $1000 emergency…"

Poll by AP NORC Center for Public Affairs Research

"The more we learn about the balance sheets of Americans, it becomes quite alarming."

Caroline Ratcliffe, Senior Fellow at Urban Institute

Quote: Associated Press, May 21, 2016

Changes since 1999?

Much less credit card debt post 2009 Credit Card Act – replaced by increases in student loans

Huge increases in premiums for high deductible health care insurance for 20-somethings post ACA. Costs net of credit? More study needed.

Explosion of asset locations (e.g., Roth 401k, 529, HSA) creates complexity but offers options.

Policy Implications

Seeds of growing income and wealth disparity planted early.

Policy (e.g., health insurance and income tax) has complex effects across the millennial cohort that deserves future study.

Growing volatility in earned income leading to over-insurance by social programs (e.g., SSDI) and increased asset location options.

Implications of Leverage

Amplifies financial strengths and weaknesses…and variations across the business cycle

Some Gen Y have no student debt, little or no credit card debt, and ample support (safety net) **from** family (including health insurance with parents till age 26) but…*some Gen Y have exactly the opposite*.

Growth of the sharing/barter economy – enabled by social media - is a rational response to high leverage

Financial Advice – Gen Y

Literacy is a challenge – *see* Lusardi and Mitchell (2014)

Nudges, such as those in 401-k, can help – *see* Yakoboski (2013)

Budgeting, insurance, and debt management are critical – yet advice models are often based on product sale or money management…mismatch for Gen Y

Build engagement through employer benefits channel or via virtuous social media cycles

Summary

High levels of Gen Y household leverage amplify top to bottom line sensitivity, highlighting household *vulnerability* to downward income and upward expense shocks

The family is becoming a more complex risk bearing unit with both intra- as well as inter-generational income transfers

Policy challenges – vulnerability is sowing seeds for decreased income mobility and wealth concentration