Household Leverage: Looking Inside Gen Y Finances to Assess Implications

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World has changed a lot since 1999!

Two major bubbles burst, first in technology and then in real estate (2000-2008)

Prolonged weakness in employment and workforce participation – especially at entry level (2008-Present)

Who is "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

Always been the course project for senior-level undergraduates/entry-level graduate students in my personal financial planning class.

I have read well over 1000 plans since 1999.

Every plan contains 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

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

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 - $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)

Vulnerability – Consider 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 to pay for repair…2009 Act
  - Ask family member for help…or a friend
  - Getting to work?

Vulnerability and Inflows

Consider a negative shock to inflows (earned)

In my early years here (pre-2008), this was much less of a consideration

Since 2008, issue front and center…

Unable to obtain and/or loss of job

More reliance on "independent contractor" (1099) status

Household Leverage - Operating

Households are not risk neutral…down is worse than up

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…

Estimate that 40 percent of op. expenses are variable.

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

For the typical graduate:

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

Degree of Financial Leverage (DFL)

Measures the sensitivity of surplus to changes in operating cash flow

Financing cash flows are 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

Implications of Leverage

Amplifies financial strengths and weaknesses…consider the Gen Y story.

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).

Some Gen Y have exactly the opposite.

Boomers typically have more access to credit and can have higher financial leverage

Summary

Examination of Gen Y finances reveals that the typical degree of total household leverage is high – in both operating and financial terms

Leverage amplifies top to bottom line, highlighting household vulnerability to downward income and upward expense shocks

Since most households are not risk neutral, down is worse than up