Discussion of "The Work-Leisure Tradeoff: Identifying the Heterogeneity" by Kosar, Sahin, and Zafar

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This Paper...

- Estimates elasticities of labor supply using the "hypothetical-choice approach"
- Gets around issues in traditional econometric exercises, e.g., unobserved heterogeneity
- Enables potentially more powerful identification of labor-supply elasticities

Overall Impression

- New and important contributions to this vast literature
  - Use a unique dataset
  - Comprehensive results for individual/group-level labor-supply elasticities
    - Exiting literature often focuses on a certain group of people (e.g., near retirement workers)
    - This paper computes systematically and comprehensively labor-supply elasticities by various groups and hours
- The paper does not address specific economic questions at this point
  - How do their results alter existing views about impacts of some tax policies?
  - What do their results say about the nature of labor-supply frictions? What frictions are important and how much for business cycles?
- Also would like to see detailed and specific comparisons with the existing literature

My Discussion

1. Question/suggestions about the survey methodology
2. Relation to the literature
3. Evidence from labor flow data
4. Role of labor-supply frictions on the estimation of elasticities

Question/Suggestions about the Survey Design

- The survey presents 10 scenarios, and in each scenario, the respondent chooses one from two pre-set combinations of (w, h) and not-working
- Why not present w first, ask if the respondent is willing to work at that w, and let him/her choose hours from a wider range of possible hours?
- The latter design allows the authors to tabulate the respondents' decisions in a simple manner; comparison to the existing empirical literature is easier
- In addition to demographic information of individual respondents, collecting household-level information such as spouse's labor force status, household wealth etc. could be very useful
  - Seems especially relevant those currently working part-time

Intensive-Margin (Steady-State) Elasticities (Individual Level)

	All	Female	Male	Female with kids	Male with kids
			Hicksian		
$h = 20$	0.448	0.346	0.650	0.255	0.579
$h = 40$	0.225	0.168	0.336	0.124	0.319
$h = 50$	0.156	0.121	0.238	0.087	0.246
			Marshallian		
$h = 20$	−0.044	−0.117	−0.181	−0.176	0.103
$h = 40$	−0.232	−0.331	−0.100	−0.337	−0.099
$h = 55$	−0.299	−0.383	−0.154	−0.361	−0.124

Intensive-Margin Elasticities, Literature

CBO meta-analysis by McCleland and Mok (2012)

All	Men/ Single women	Married women
	Hicksian	
0.1 to 0.3	0.1 to 0.3	0.2 to 0.4
	Marshallian	
0 to 0.3	0 to 0.3	0.1 to 0.4
	(Income Effects)	
−0.1 to 0	−0.1 to 0	−0.1 to 0

Intensive-Margin Elasticities: Literature

Chetty (2012)

TABLE 1

Bounds on Intensive Margin Hicksian Labor Supply Elasticities with δ = 1% Frictions

Study (1)	Identification (2)	$\hat{\varepsilon}$ (3)	s.e. ($\hat{\varepsilon}$) (4)	$\Delta\log(1-\tau)$ (5)	ε_L (6)	ε_U (7)	95% CI ε_L (8)	95% CI ε_U (9)
A. Hours Elasticities								
1. MaCurdy (1981)	Lifecycle wage variation, 1967-1976	0.15	0.15	0.39	0.03	0.80	0.04	1.20
2. Eissa and Hoynes (1998)	U.S. EITC Expansions, 1984-1996, Men	0.20	0.07	0.07	0.00	15.29	0.00	15.51
3. Eissa and Hoynes (1998)	U.S. EITC Expansions, 1984-1996, Women	0.09	0.07	0.07	0.00	15.07	0.00	15.30
4. Blundell, Duncan, and Meghir (1998)	U.K. Tax Reforms, 1978-1992	0.14	0.09	0.23	0.01	1.78	0.00	2.04
5. Ziliak and Kniesner (1999)	Lifecycle wage, tax variation 1978-1987	0.15	0.07	0.39	0.03	0.80	0.00	0.99
	Mean observed elasticity	0.15						
B. Taxable Income Elasticities								
6. Bianchi, Gudmundsson, and Zoega (2001)	Iceland 1987 Zero Tax Year	0.37	0.05	0.49	0.15	0.92	0.10	1.04
7. Gruber and Saez (2002)	U.S. Tax Reforms 1979-1991	0.14	0.14	0.14	0.00	4.42	0.00	4.84
8. Saez (2004)	U.S. Tax Reforms 1960-2000	0.09	0.04	0.15	0.00	3.51	0.00	3.64
9. Jacob and Ludwig (2008)	Chicago Housing Voucher Lottery	0.12	0.03	0.36	0.02	0.84	0.01	0.92
10. Gelber (2010)	Sweden, 1991 Tax Reform, Women	0.49	0.02	0.71	0.28	0.86	0.25	0.91
11. Gelber (2010)	Sweden, 1991 Tax Reform, Men	0.25	0.02	0.71	0.12	0.54	0.10	0.59
12. Saez (2010)	U.S., 1st EITC Kink, 1995-2004	0.00	0.02	0.34	0.00	0.70	0.00	0.77
13. Chetty et al. (2011a)	Denmark, Married Women, Top Kinks, 1994-2001	0.02	0.00	0.30	0.00	0.93	0.00	0.94
14. Chetty et al. (2011a)	Denmark, Middle Kinks, 1994-2001	0.00	0.00	0.11	0.00	6.62	0.00	6.62
15. Chetty et al. (2011a)	Denmark Tax Reforms, 1994-2001	0.00	0.00	0.09	0.00	9.88	0.00	9.89
	Mean observed elasticity	0.15						
C. Top Income Elasticities								
16. Feldstein (1995)	U.S. Tax Reform Act of 1986	1.04		0.26	0.37	2.89		
17. Auten and Carroll (1999)	U.S. Tax Reform Act of 1986	0.57	0.12	0.37	0.21	1.53	0.11	1.81
18. Goolsbee (1999)	U.S. Tax Reform Act of 1986	1.00	0.15	0.37	0.47	2.14	0.32	2.47
19. Saez (2004)	U.S. Tax Reforms 1960-2000	0.50	0.18	0.30	0.14	1.77	0.03	2.21
20. Kopczuk (2010)	Poland, 2002 Tax Reform	1.07	0.22	0.30	0.44	2.58	0.24	3.09
	Mean observed elasticity	0.84						
D. Macro/Cross-Sectional								
21. Prescott (2004)	Cross-country Tax Variation, 1970-1996	0.46	0.09	0.42	0.18	1.20	0.10	1.41
22. Davis and Henrekson (2005)	Cross-country Tax Variation, 1995	0.20	0.08	0.58	0.07	0.57	0.01	0.76
23. Blau and Kahn (2007)	U.S. wage variation, 1980-2000	0.31	0.004	1.00	0.19	0.51	0.18	0.52
	Mean observed elasticity	0.32						
	Unified Bounds Using Panels A and B:				**0.28**	**0.54**	0.23	0.61
	Minimum-δ Estimate ($\varepsilon_{\delta-\min}$):				**0.33**			
	Unified Bounds Using All Panels:				0.47	0.51	0.23	0.53
	Minimum-δ Estimate ($\varepsilon_{\delta-\min}$):				0.50			

Note: This table shows bounds on structural intensive margin Hicksian elasticities using estimates from existing studies. Column 3 shows the point estimate of the observed elasticity, column 4 shows the associated standard error, and column 5 shows the size of the net-of-marginal-tax wage change used for identification. Columns 6 and 7 show the lower and upper bounds on the structural elasticity, calculated using Proposition A1. Columns 8 and 9 give a 95% confidence interval for ε, constructed as in Imbens and Manski (2004). See Appendix B for sources and details underlying calculations in columns 3-5.

Intensive-Margin Elasticities: Summary

- Their estimates of Hicksian elasticities seem larger than those in the literature but overall in line with those in the literature
- Interesting results:
  1. Substitution effects become smaller and income effects larger as h increases
  2. Very large income effects across *all groups and levels* of h
     - Even at $h = 20$, the total effect is negative
  3. $\eta^h(\text{Males}) > \eta^h(\text{Females})$
     - CBO study: married women = highest Hicksian elasticity
     - Current study: women with kids = lowest Hicksian elasticity

Extensive-Margin Elasticities (Individual Level)

All	Female	Male	College	Non-College
		Frisch		
0.541	0.579	0.478	0.448	0.581
		Marshallian		
0.097	0.114	0.082	0.095	0.103
		(Wealth Effects)		
−0.444	−0.465	−0.396	−0.353	−0.478

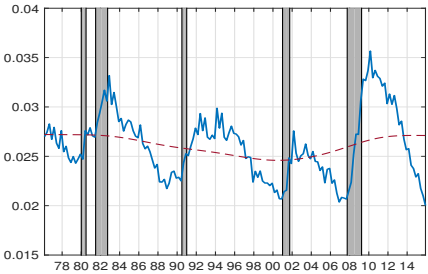
Extensive-Margin Frisch Elasticities in the Literature

- Chetty et al.'s (2011) meta analysis: 0.28
- Reichling and Whalen (2012) CBO meta analysis: "ranging from 0.2 to 0.7 for men and from 0.1 to 0.4 for women"
  - Note: often based on samples of people close to retirement, who are more likely to adjust their behavior in response to changes in taxes
- Authors' estimates are higher than those of the existing literature but may be in a plausible range
- Wealth effects appear to be quite large in the current results
  - Similar to the results on intensive margin elasticities

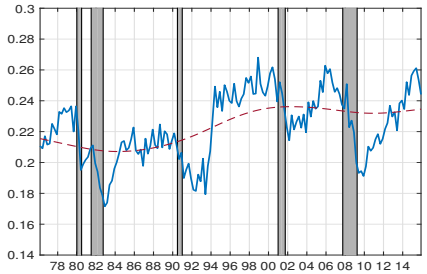
Importance of Income (Wealth) Effects

- Cyclical movements in labor-force participation flows appear to be consistent with the presence of large income effects
- Transition rates from nonparticipation to unemployment (NU) and unemployment to nonparticipation (UN)
  1. Macro time series
  2. Analysis of married couples

Time Series of UN and NU Transition Rates



(a) NU



(b) UN

- Strong countercyclicality of NU and strong procyclicality of UN

Interpretation

- Think of the representative family making an optimal decision of sending (or withdrawing) its members to the job search pool
- Substitution effects imply the opposite cyclical movements
  - The family sends more workers to the search pool in expansions (procyclical NU rate)
  - The family withdraws more workers from the search pool in downturns (countercyclical UN rate)
- The opposite is true in the data: in line with strong procyclicality of the value of leisure (MRS) due to the wealth effect

UN and NU Transitions vs. Partner's Labor Market Transitions

	Partner's Transition			
	EE	**UE**	**EU**	**UU**
	Females			
UN	0.257	0.237	0.204	0.156
	[0.253 - 0.261]	[0.218 - 0.256]	[0.181 - 0.226]	[0.145 - 0.166]
NU	0.02	0.05	0.08	s 0.08
	[0.023 - 0.024]	[0.044 - 0.054]	[0.074 - 0.087]	[0.079 - 0.090]
	Males			
UN	0.116	0.085	0.082	0.062
	[0.114 - 0.119]	[0.071 - 0.099]	[0.063 - 0.100]	[0.055 - 0.070]
NU	0.062	0.065	0.116	0.101
	[0.060 - 0.064]	[0.050 - 0.080]	[0.096 - 0.135]	[0.090 - 0.113]

Note: Each row reports the transition probability for Females (top panel) and Males (bottom panel) conditional on his or her partner transition.

- Heterogeneities with respect to partner's labor market status
- Females appear to have larger participation responses

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Role of Frictions on the Estimation Results

- Their dataset enables the authors to get around various issues in traditional setups
- Their results still are model-dependent (including preferences) and the authors estimate frictionless models
- Frictions in changing hours or participation can bias the results
  - Recall that women with kids had the lowest elasticities; most likely because of adjustment costs. But it does not necessarily mean that the underlying structural elasticity parameter is small
- Chetty (2012): Observed elasticities are often near zero because the cost of ignoring tax reform or wage change is small
  - He shows an analytical representation for bounds on structural price elasticities as a function of the observed elasticity, size of the price change used for identification, and the degree of optimization frictions

Borrowing Constraint vs. Income (Wealth) Effect

- Large differences between estimated Hicksian (Frisch) and Marshallian elasticities
- Could be due to borrowing constraints
  - Estimates of Hicksian (Frisch) elasticities are also biased downward (Domeiji and Floden (2006))
- Consider a temporary decline in wages: in the absence of the constraints, he/she might work less and smooth consumption by borrowing but if borrowing is not possible (thus he/she cannot smooth consumption), then he/she might work more
- Their data might be able to shed some light on the distinction especially if they have information about non-labor income