Measurement of Visible Consumption

June 27, 2016

1 Visible consumption in the developing world

A rural setting in a developing country more often evokes images of immiserization than competitions for positional consumption. Still, the visual splurge offered by the new economic developments offers new venues of visible consumption. Not only has the basket of visible consumption has expanded, a new spirit of individual consumerism has replaced the rural contractual arrangements that were less influenced under nationalist governments. Looking at Tanzania, the spending on marriage and funerals seems high, but it now competes with higher spending on consumer electronics and electricity. The current study wishes to study the visible consumption in this cross-sectional expenditure data from Tanzania.

The presence of conspicuous consumption in developing countries has been a recent topic of interest ([7],[5]). The studies have been based on a visible basket classified first by Heffetz - who verifies the basket constituents with a visual-index survey conducted in the US. Table 1 summarizes the data and methodologies for some of the studies.

A similar test of visibility of commodities has not been repeated for all studies except that by Heffetz[4]. There are two reasons why this could be necessary for developing countries. First, the data from developing countries (for Tanzania in our studies) can provide entirely different conclusions if the basket for conspicuous consumption basket is composed on varied criteria[4]. If maintenance of motor vehicles is declared as utilitarian rather than visible, for example, then the signifiance of control variables for visible consumption changes. The second more general problem is the mismatch of the consumer tastes that is implied by the translation of Heffetz basket into developing countries. The subsitution effect inherent in a visible commodity in the developed world cannot be compared with the same commodity in the developing world - hair-products may be associated with a higher visibility (and promise) in the developed world but in the developing world their purpose could be just utilitarian. Banejee-Duflo point out that spending on health or finance is low in the developing countries - only because the quality of services in the country is quite low[1].

Visibility elasticities can therefore not be compared across countries without this consideration. The relative individual weight of the items in the basket itself does not fully capture the true motivation of the consumer - it is indeed the consumer's universe of commodities that matters as well (a Deaton-Paxson paradox is an instance of this general problem). A transfer of "visible commodities basket" without consideration of visibility mechanism therefore risks arriving at inconsistent conclusions[5]. What we can provide evidence of is however the local demographic factors that can have an impact on visible consumption within the consumer universe.

2 LSMS 2010 data on Tanzania

LSMS record a few comomdities that can be considered of visible value. Since an evidence of visibility is not established at this point, any expenditure not related to food and utilities is considered potentially visible

[4] To account for this problem, Friehe Mechtel -working on data from Germany- perform robustness tests by presenting results after selecting different basket selection critieria[3].

[5] To address this same issue, Friehe-Mechtel consider the robustness of the east-germany dummy by trying out various criteria of the visible consumption as detailed in Charles and Heffetz studies[3]. A kernel or regression over split data is to be tried to enhance the robustness of these tests.

Authors	Estimation Procedure	Data Sources
Kaus[6]	Cross-sectional 2SLS with demographic and time variables	IES(expenditure survey) - visible categories through vindex
Charles et al[2]	Cross-sectional 2SLS with demographic and time variables	CEX(expenditure survey) - visible categories same through vindex
Friehe, Mechtel[3]	Regression with demograpic and time controls	EVS (expenditure survey) - visible categories through vindex[1]
Khamis, Prakash, Siddique[7]	Cross-sectional 2SLS with demographic and time variables	2005 Indian Human Development Survey (IHDS)
Omori, Smith[8]	Regression with demograpic and time controls	US CEX (expenditure survey)
Heffetz[4]	Visibility Elasticities estimated through weighted/kernel regression with a Visibility Index (Vindex)	Vindex (surveyed), US CEX (expenditure survey)
Jaikumar, Sarin[5]	2SLS with Gini-Index as control variable and household assets as instrument for permanent income control (total expenditure)[2]	2005 Indian Human Development Survey (IHDS)[3]

Table 1: Critieria of Conspicuous Consumption in surveyed literature

Visible Commodity Code	Description
214	Other personal products (shampoo, razor, cosmetics etc.)
301	Carpets, rugs
313	Marriage Ceremony
314	Funeral
219	Motor vehicle service, repair, or parts

Table 2: Visible commodities in LSMS data

item	control variables (significant)
214	lnpinc, age, hsize, highest_educ
301	lnpinc,hsize
219	age,hsize(-)
313	age,hsize,highest_educ,years_community
314	lnpinc, hsize(-), years_community
ALL	lnpinc,age

Table 3: Summary of significant control parameters for visible consumption

for the study. These cateogries from LSMS are listed in the Table 2.

As such there are quite a few problems with normalizing the data. To compare expenditure on visible items with that on food, one cannot avoid mixing microdata from recall method (visible commodities) with that from the diary method (food). When the weekly data is mixed with yearly data - the extrapolation of past week's consumption can further overestimate food costs. This would not be a problem if the multiplication is done in the same way for the whole of the population of respondents (i.e. everyone is equally likely to overspend in the recorded week) - but it does make the estimate of total expenditure prone to error.

Further, the income spectrum is heavily skewed in the developing world. In Tanzania, around 2.5 % of the recorded households don't have any reported income. Having two jobs and owning multiple self-owned (small) businesses is not uncommon and the mode of payment is often not in cash. The amount of income recorded for the houshold is thus often based on the person's estimate of the item provided as income. All of these can make the incomes estimates noisy at best. As such, the income levels seem poorly correlated with expenditure levels. One possible way to measure this noise observing the variance of income in the same region[6].

Another data-quality issue for recorded level-of-education is the presence of NAs for 30% of the individuals. For the study, it was assumed that NAs correspond to no education(level 0). After accounting for all these problems, the visible consumption is regressed against control parameters : years-of-residence-in-community, age, household-size and literacy. The length of time someone has lived in the area seemingly has an effect on the visible spending (when aggregating all the categories) - but when total expendiure is instrumented, this effect disappers. The effect the residence status on visible consumption therefore is through permanent income (total expenditure). However, if we were to focus on funeral and marriage costs the direct signficance of years-in-community reappears. The results (presented in the table 3) so far only stress upon a judicious selection of visible commodities basket.

References

[1] Abhijit Banerjee and Esther Duflo. *Poor Economics.*

[6] If there are X individuals with $n_i(i \epsilon X)$ sources of income each, then it is safe to assume that workers in the same region and same employment-type have resonably similar incomes. The variance in incomes recorded for the same local group can give an estimate of how noisy the data is due to self-reporting.

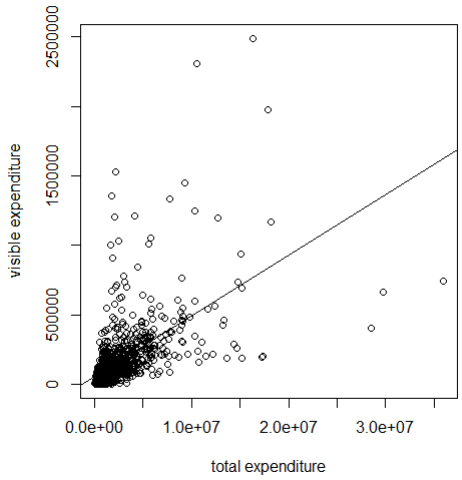

Figure 1: Visible Expenditure vs Total Expenditure for LSMS 2010

[2] Kerwin Kofi Charles, Erik Hurst, and Nikolai Roussanov. Conspicuous consumption and race. *The Quarterly Journal of Economics*, 2009. http://www.nber.org/papers/w13392.

[3] Tim Friehe and Mario Mechtel. Conspicuous consumption and political regimes: Evidence from east and west germany. *European Economic Review*, 2014.

[4] Ori Heffetz. A test of conspicuous consumption: Visibility and income elasticities. *The Review of Economics and Statistics*, XCIII(4), 2011.

[5] Saravana Jaikumar and Ankur Sarin. Conspicuous consumption and income inequality in an emerging economy: evidence from india. *Marketing Letters*, 2015.

[6] Wolfhard Kaus. Conspicuous consumption and race: Evidence from south africa. 2010.

[7] Melanie Khamis, Nishith Prakash, and Zahra Siddique. Consumption and social identity. 2010.

[8] Megumi Omori and Danelle Taana Smith. The impact of socioeconomic status and metropolitan area racial composition on visible consumption among whites and racial/ethnic minorities. *Race Soc Probl*, (7):169–180, 2015.