Women, work and age around the World

Comparative results including gender and non-market time transfers in National Transfer Accounts (NTA)

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1. Introduction

In the midst of the Great Depression, the need to understand economic growth led to the development of national accounts to measure the market economy. Measures such as gross domestic product and national income are now central to our current picture of economic performance. Later, the global trend of population aging served as the impetus behind the development of the National Transfer Accounts (NTA) project, which adds the age dimension to national accounts. The project now includes 40 countries at various stages of estimating age profiles of economic activity. It has already produced an important volume showing how countries produce, consume, share and save by age,[1] and several governments and international organizations are considering including NTA age estimates in their national statistics to monitor future population aging. These two examples demonstrate that we measure what is important, and then we come to value what we measure.

The next measurement frontier is to add gender fully to economic accounting. This involves two distinct efforts: 1. disaggregating national income by gender and 2. adding the value of economic activity which is not measured in national income. This unmeasured piece is services produced outside of the market – time spent enabling the well-being and market contributions of others through housework, care for household members, and care for the community. While these activities are not valued in the market and not included in national accounts, the market is entirely dependent upon them to create the human capital of the future. Historically, women have specialized in non-market production and in most countries they still do, even as they increase their involvement in market work. We cannot properly understand or value women's full economic contribution without measuring it, and we cannot imagine the future without tools to model how changing gender roles may impact economic growth and development.

The NTA project has begun this measurement effort, leveraging its strength as a large, coordinated, international research project specializing in social statistics, with experts at all levels of academic and government research organizations. It also brings to this work the focus on age, which has been lacking in much past research on household production. Care of children and the elderly constitutes a large portion of unpaid household services, and the production and consumption of this care is heavily age-determined. A working group within the NTA network has formulated the methodology to add gender and the value of non-market contributions to its estimates and several countries have produced preliminary results.

The project is poised to produce comparative estimates in eight to ten to member countries in the next year. This paper will be the first set of comparative results from this project, and the first large scale set of results

[1] Lee, R. and Mason, A., (2011). Population aging and the generational economy: A global perspective. Cheltenham, UK, Edward Elgar. http://www.idrc.ca/EN/Resources/Publications/Pages/IDRCBookDetails.aspx?PublicationID=987

showing how our understanding of economies and women's economic contributions differ when you break it down by age, gender, and market versus non-market contributions. The results will span countries in different regions, at different levels of socioeconomic development, and with different cultural norms around gender roles in the workplace and household.

2. Current progress

Currently, estimates exist in partial form for Germany, the United States, Costa Rica, Mexico, India, South Korea, Hungary, and Slovenia. For this paper, we expect to include results from South Africa, China and one or two other countries.

To give an indication of what we can learn from these estimates, Figure 1 shows results for the United States in 2009. The top row of graphs in Figure 1 is based on the market economy. It shows the per capita age and gender dimensions of labor production in blue, consumption of market goods and services in red and the difference between them in green (here referred to as the "lifecycle deficit"). Labor production includes wages, salaries, and self-employment income. Consumption includes goods and services provided by the government, such as education and publicly provided health care, as well as those purchased by private households, with household amounts allocated to individuals using an equivalence scale or other numeric methods. While males and females seem to consume about the same amount in market goods and services, their production is quite different. This is due to many factors: different average labor force participation and hours per week for those in the labor force, women's greater prevalence in lower-wage occupations, and women's lower average wages compared to men in the same job. The difference between consumption and production is shown in green, with men producing a large surplus over many ages while women do not.

The next row of graphs shows production, consumption and their difference based on non-market production. For the production estimates, average time spent by age doing household production activities such as housework and child care is taken from the American Time Use Survey and weighted by an appropriate market wage for each type of activity. Where a respondent indicated that he or she was responsible for young children while doing another activity, the time is designated as child care or if done simultaneously with another productive activity is split 50/50 between child care and the other productive activity. For the consumption estimates, we assign the value of the time produced to the age of the target individuals in the household: children or adults for the care activities as indicated in the survey, or all household members for general household activities. Again, we see males and females are roughly equivalent consumers of non-market time. However, here the production difference is reversed. Women are producing much more unpaid housework and care work than men. This results in larger surpluses produced by women than men.

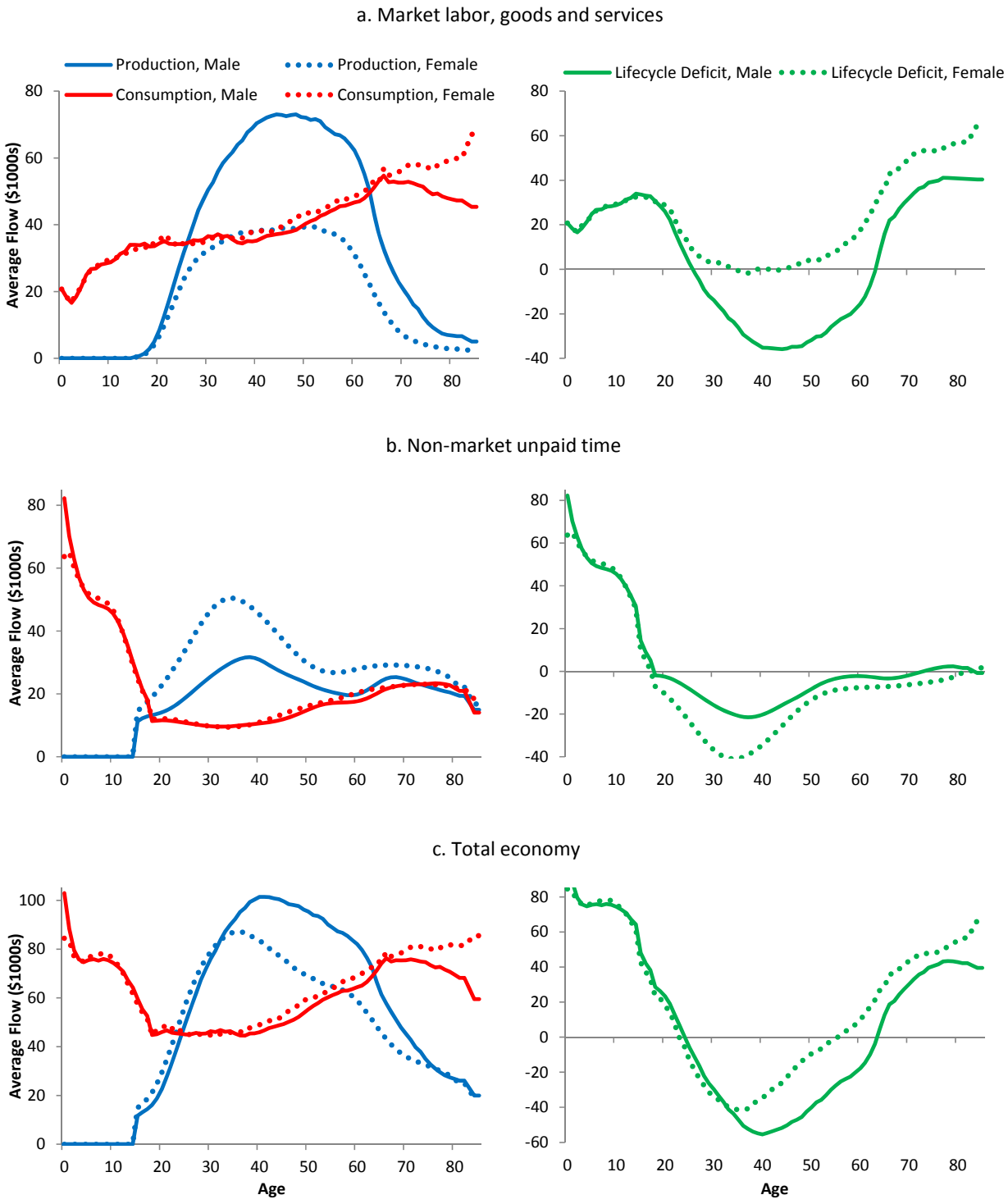
In the bottom row, market and non-market production are combined. Note that the top row lifecycle deficit when considering only goods and services traded in the market shows no surplus for women at any age. When the accounts are combined and women's larger contributions outside of the market are valued, the sexes look similar. In fact, if we showed the results in units of time instead of dollars, women produce slightly more than men at most ages when you combine home and market work. Clearly, an accurate representation of men's and women's productive activities is only possible with the inclusion of non-market production. Furthermore, the value of non-market care inputs to infants and young children appears to be much larger than the value of the market goods and services they consume. This consumption by the young today is the human capital of tomorrow, and a great deal of it is being provided by women, for no pay.

While the consumption of non-market production is lower for the elderly than for infants, there is still a significant amount. This will likely look very different in countries with a lower propensity to pay for elder care through market mechanisms, such as home health aides and nursing homes.

As we gather and finalize the results for the larger group of countries we can establish the empirical reality behind many questions about gender, unpaid work and economic growth. In the paper we will give statistics to specify the hours worked in the household and the market by age, which will reveal how much of a gender gap there are in different types of productive activities, and whether the genders end up with very dfifferent amounts of time left over for leisure and self-care activities in different countries. Our estimates will also reveal the degree to which men and women earn different amounts for their time spent in the workplace, and whether those differences exist throughout the life course or are confined to specific cohorts or age groups. And looking across countries, we can address how much fertility differences may explain differences in female labor force participation at different ages and countries, as well as how much time is spent on childrearing per child in different countries. This empirical reality underlies many other policy relevant research questions, such as whether policies to increase women's labor force participation might be part of managing population aging, leading to the additional question of who will do the household production women do now if their market time were to increase? Will market inputs fill the gap, with or without government subsidies, or will men increase their household production? Also, it is possible that child care burdens will be replaced with eldercare burdens as populations age, or is this counteracted by elderly giving child care to their grandchildren? And what relationships do we observe between money transfers and time transfers? Are they substitutes or compliments? Some of these questions can only be answered with micro-level research, but our project can establish the macro empirical reality on which all of these issues will play out.

We will report that empirical reality in the paper and flesh out the research questions that the project can address going forward.

Figure 1. Age and gender dimensions of production, consumption and the lifecycle deficit (consumption minus production) for market goods and services, unpaid time and combined, US$ (US 2009).



Source: Author's calculations. The "production" line plotted in panel a. is labor income (wages, benefits, self-employment income). Non-market estimates include child care when it is a primary or secondary activity (see text for details).