Flow of Funds Accounts
Creating a Path for Maximizing the Effect of Savings Mobilization

Vision Statement

The Flow of Funds Accounts (FFA) Workshop brings together experts and practitioners to establish a framework for identifying and assessing the current status of FFA in developing countries. This will greatly enhance our ability to measure savings, investment, and intermediation in emerging market and other lesser-developed economies.

Flow of funds accounting is important because it allows a mapping of primary financial relationships within a country’s financial system. Ideally, a developing country’s financial system ought to achieve efficiency, such as the efficient mobilization and intermediation of savings. But how well do financial markets and institutions function in practice? How well-connected and well-oiled are the gears that link households, firms, governments and the global economy?

The existence of comprehensive national FFA would allow us to determine answers to these questions. However, FFA are quite rare – at least on a comprehensive, systematic basis – for low- and middle-income countries. They exist primarily for the U.S., Europe, and other high-income OECD countries. Fortunately, there is a conceptual link between FFA and national income and product accounts (NIPA), which are developed for virtually all countries (with varying quality). This supplies us with a path for creating FFA for developing countries.

Thus, a primary goal of this Workshop is to begin establishing the framework for creating FFA for developing countries. We are particularly interested in whether and how low-wealth households save, interact with, and are affected by financial systems. FFA typically follow the national income accounts in distinguishing firms, households, governments, and the rest of the world, but they usually do not attempt to split households by wealth level, for example. As a result, the savings situation of low-wealth households is likely to be obscured in the aggregate data, since even the lowest quartile of households ranked by wealth may hold only a small percentage of financial or real assets.

Therefore, relative to the U.S. FFA benchmark, we plan to make greater use of survey data, allowing us to magnify the savings and intermediation picture for the low-wealth households of developing countries. This will also allow us to examine flows across regions within a country, such as rural to urban flows. For example, household savings in rural areas could be fuelling economic growth. The net effect of these savings would directly benefit the households and indirectly benefit the economy through employment (with a potentially large impact). The creation of FFA coupled with micro-founded models will allow us to quantify these benefits. In sum, focus on these additional dimensions will likely result in a more-detailed aggregate FFA relative to developed country benchmarks.
**Importance for Savings**

The Flow of Funds Accounts Workshop will allow us to gain significant insights to savings. Once FFA have been established for a given country, we can begin to answer important, specific questions about savings: Are formal financial channels important for mobilizing savings across households, including those of low wealth, or not? Are there regional or urban/rural patterns? Does this savings stay at rest or is it being used productively? For example, are savings being used in a manner that produces a higher return and, therefore, a stronger motivation for households to save, and a way for local NGOs and banks to cover the costs of deposit mobilization? Are savings invested in business or farm enterprises? Are savings that are deposited (directly or indirect) in financial institutions simply held there or are they on–lent and intermediated though the rest of the economy?

**Creating the Framework for FFA**

FFA from OECD countries typically rely heavily on information gathered by central banks and other government agencies. Because, in these countries, the majority of economic transactions seem to be intermediated through formal financial entities, these reports may provide a reasonably accurate picture of the mobilization and use of savings, and the aggregate flow of funds. However, when focusing on low-income countries, we face the challenge that larger shares of transactions are made through informal financial entities or with cash and are therefore harder to track. Yet this tracking is crucial.

In principle, measurement of savings, investment, and income can be extended to create FFA accounts by applying corporate financial accounting principles. For example, in corporate financial accounting, an income statement subtracts expenses from revenues to measure profits. This then breaks down in dividends and retained earnings (savings). A similar logic applies for households, with savings being the difference between income and consumption flows. For households running a business, savings can be associated with an increase in productive, physical assets. Alternatively, financial assets created by these savings might be held as currency in hand, lent to other firms (e.g., trade credit), or held in formal sector financial institutions such as banks, insurance companies, finance companies, the stock market, pension funds, etc. It is important to know the identity of the ultimate holder and/or user of savings in order to assess how secure these savings are. It is important to understand that, by contrast, losses in income imply a reduction in physical or financial assets, and the previous savings of households, firms and/or financial institutions essentially disappear.

More specifically, using firm and household-level survey data, balance sheets (assets, liabilities, and net worth) can be created for each sector—or even for subgroups in each sector—at a point in time. This process of creating FFA from household-level survey data is in the spirit of the financial diaries work in several countries, but here the measurement is even more systematic as it draws on corporate accounting principles with double-entry book keeping and a variety of cross checks across the accounts. The change in the balance sheets over two distinct points in time will measure the net saving (or dis-saving) for each subgroup during the period. As noted, financial savings, excluding cash, end up either in the informal market or in commercial banks.
and other financial institutions. Likewise, the financial statements of financial institutions show the balance sheet at points in time, with deposits as liabilities and loans as assets. This is important because FFA for financial institutions measure changes, and so one can see how changes in deposits going into banks are directed toward loans for the other sectors, both public and private. This would allow us to examine whether good use is made of the money and to determine whether there is the typically less beneficial "crowding-out," as when savings is channelled to government debt at the expense of the private sector.

Measuring flows into the informal financial sector presents a generally greater challenge, since moneylenders, private savings groups (ROSCAS) and the like do not report financial statements to central authorities. Detailed household accounts in low-income countries will also need to measure net incoming gifts and remittances, which may have a significant impact on net worth in low-income households. Samphantharak and Townsend discuss this and other issues in detail in their Econometric Society monograph (2009). Enhanced surveys can exploit lessons learned and can be extended to other countries.

On the governmental level, the FFA considerations are a bit different. Governments (state/provincial and national) track taxes and fees as revenue, and they track government expenses and transfers as spending. Government liabilities are often, as noted, the assets of other entities, e.g., commercial banks or pension funds. Savings can often flow abroad, thus linking flow of funds to balance of payments statistics. Savings can also enter a country via capital inflows, but crisis and sudden stops can destroy the banking system, in turn threatening domestic savings. Yet even with the foreign sector, the accounting ideally remains the same; conceptually, flows across regions of a country are the same as flows across countries. There is some work done in the U.S. that can be used as a guide. Also, Paweenawat and Townsend (2010) have created the income statements, flow of funds, and balance of payment statistics for villages in Thailand as small open economies based on data collected in the Townsend Thai project. Of course, this analysis uses a unique dataset of the sort that is not yet available in many countries, but new surveys, with either geographic or sectoral disaggregation, can be funded.

**Challenges of Creating FFA**

Five issues, in particular, make the measurement of flow of funds difficult, both conceptually and in practice. First, capital gains and losses on real and financial assets appear both on the income statement of the various entities and on the balance sheet (e.g., marking to market). Changes in exchange rates may be similarly reflected. As there is no real flow, these valuations require adjustments. Second, the distinction between accrual notions of income and cash-flow notions of income clouds the picture. National income accounts typically are based on accrued income statements of firms. But flow of funds and the flow of cash can be crucial, especially if we are interested in how high-frequency movements are financed.

A third issue is aggregation, which may obscure important flows within sectors. For example, both the sources and uses of funds for the same financial instrument for the same entity may be positive, but these will cancel out in the aggregation. Ideally, further disaggregation would paint

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the picture of what is going on within sectors. Higher frequency data will also help minimize aggregation issues. Fourth, there are shifts among assets and offsetting changes in assets and liabilities, making the net impact unclear. For example there can be shifts between domestic and foreign assets, and these can happen suddenly in capital inflows and outflows. Unfortunately, domestic resident holding of foreign assets may be hard to measure.

Finally, we return to the issue of households as firms. In practice, household flows are poorly measured, or even measured as a residual, in most FFA. The discrepancy between household saving in NIPA and FFA is notorious. This discrepancy, however, is not due to an inadequate conceptual framework but rather to a lack of data; in other words, enhanced surveying is a viable solution for measuring household flows. We want to measure the flows for relatively poor households, as in financial diaries for the poor, although we have the diaries, more exact financial accounts, and enhanced surveys conducted by Central Banks that measure the use of cash and deposits in Canada, Italy, Austria.

Additionally, we want to measure as well the flow of funds of the relatively rich households that hold a larger number and variety of financial instruments (as in the oversampling strategy of the Survey of Consumer Finances). This would allow us to compare and contrast richer households with the poor in order to target potential inefficiencies and also, on occasion, determine who are the ultimate users of funds. If the financial system were functioning well, the financial pictures might not appear so distinct across rich and poor households, at least qualitatively. Even then, however, the instruments available to the poor would have to deal with low levels of consumption and extreme variability in income and cash flows. The point remains that the poor can hold a portfolio and manage their wealth, too, and FFA can help illustrate how they do so.

**Conclusion**

In conclusion, for the most part, FFA do not exist for developing countries. We are uncovering some exceptions in Thailand, India, and Pakistan, but the need for FFA that we articulate here has been apparent in research for decades. For example Ronald I. McKinnon and others have emphasized the role of savings in development, and obstacles to deposit mobilization. McKinnon, along with Raymond Goldsmith and the Ohio State School wrote about fragmented economies in which households save based on what they can do with their money. With less than fully integrated financial systems, some of this is invested in low yield assets. These issues are still with us today and remedies are part of the mission of the Consortium.

The Flow of Funds Workshop explores these complex FFA measurement and related issues more rigorously through meetings and conferences. Furthermore, it partners with organizations on the ground to strategize and devise ways in which to improve FFA we can begin to answer the questions raised above. Publications and further research that come out of this group will be announced through the CFSP website at [www.cfsp.org](http://www.cfsp.org).