

## **Determinants of Household Division: A Case of A Developing Country**

The paper investigates the underlying factors determining household division in Indonesia, utilizing data from three waves of the Indonesia Family Life Survey (IFLS1 1993, IFLS2 1997, and IFLS 3 2000).

There are several reasons why understanding the process underlying household division is important. When a young adult child leave the household, the parents as well as the child may lose some of the benefits associated with living in a joint household. For instance, the ability to pool resources and to share consumption may diminish as the child ceases to contribute directly to the household economy. In many cases, the process also involves division of household assets (both productive and non-productive), for instance through some inheritance claims, leaving each household with only a fraction of the assets. While the departure of adult children may ease parents of the responsibility to provide for the children, it may also relieve the children from the obligation to take care of their ageing parents.

In some cases, having family members residing in different region may in fact increase insurance possibilities for the household to cope with unanticipated hardship, such as crop loss, sickness of household member, or other adverse shocks. However, when the hardship affect the majority of the population (for instance, when there is a nation-wide economic crisis), household division may leave the ageing member of the household vulnerable, especially in a society where there is no formal system of old-age support.

Despite the importance of household division and its consequences on household outcomes, little attention has been given on this issue. Indeed, in many analyses on household and family outcomes, household structure is assumed to be fixed and exogenous, even though household structure and composition change over time. By not taking into account the endogenous decisions behind the change in household structure and composition, analysis on household behavior or outcome may yield misleading conclusions.

It is very appealing to choose Indonesia as a case to study household division for several reasons. First, Indonesia is a very diverse society with different traditions and

norms influencing decisions on household structure and living arrangement. It is interesting to see whether we can uncover the underlying process of household division by focusing on some of the key economic and demographic variables. Second, Indonesia is a country with one of the fastest growing elderly population. Combined with the lack of social insurance system to support the elderly, the potential problem of old-age support cannot be overstated.

The availability of a longitudinal household survey of a high quality, namely the Indonesia Family Life Survey, also makes it very appealing to look at household division in Indonesia. We utilize data from the three waves of the IFLS. Because the survey follows the same households in each wave, we are able study what happen to the households over time. In addition, the survey tracks and interviews some respondents when they leave the households and set up a new household in the subsequent wave. This somewhat unique feature enables us to identify households that have divided and use the information collected from both the original and the split-off households.

Also, the IFLS2 and IFLS3 include an important period: Indonesia was hit by a financial crisis (the Asian crisis) that started in 1997 and reach its peak in mid-1998, enabling us to, in the later part of the study, to investigate household division in the context of economic crisis.

The paper adopts the model and the empirical framework used by Foster and Rosenzweig (2002).<sup>1</sup> Their study is one of the very few studies that try to model household division explicitly. The model provides a framework in which household division is seen as a process that is associated with a disagreement over household public goods. The model enables us to derive and sign the effects of changes in household characteristics and income, as well as intra-household inequality, on household division, providing the basis for the empirical work.

Using the detailed information from the IFLS, we first present a descriptive analysis of household division between 1993 and 1997, 1997 and 2000, and 1993 and 2000. We then estimate the determinants of household division by using origin-household variables as explanatory variables in a probit regression framework. Using 1993 as the

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<sup>1</sup> Foster, A. and M.R. Rosenzweig (2002), "Household Division and Rural Economic Growth", *Review of Economic Studies*, p.839-69.

initial period, we estimate the probability of household division between 1993 and 1997 and 1993 and 2000. Using 1997 as the initial period, we estimate the probability of household division between 1997 and 2000.

Our preliminary findings suggest, perhaps unsurprisingly, that the probability of household division increases with household size. However, our findings also suggest that along with age composition, education variables play an important role in determining household division. Higher maximum years of schooling of other claimants in the household are associated with higher probability of household division. On the other hand, there is evidence that higher education of household head is associated with lower propensity of household to break up. The standard deviation of claimants' education, when used as a measure for intra-household inequality, does not explain the probability of household division. Controlling for urban/rural location, productive assets seem to be insignificant in determining household division. Interestingly, we also find that controlling for age and education of the head of household, female-headed households have a higher propensity to divide. Allowing for the values of land and productive assets to be interacted with dummy variable for urban region, it seems that land and assets are not important in determining household division.

One conclusion that arises is that household division in Indonesia is primarily driven by out-migration of young, more educated household members. On the flip side of this is that these young migrants leave behind households with on average older and less educated members. While the empirical framework is based on a collective household model, the results can be explained in the context of unitary household model.

With the preliminary results in hand, we are currently looking into household division (and formation) in the context of economic crisis. We are utilizing data from IFLS2-1997 and IFLS3- 2000 to investigate how households in Indonesia adjust their household composition to cope with the crisis that hits Asia during the 1990s. In particular we are interested to see whether households with different age composition and different education level respond differentially to aggregate economic shocks.