

## Female Intra-Household Autonomy: A Review of Literature

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### Abstract

*This paper is a qualitative study of the existing literature on female intra-household autonomy. The first model of household decision-making used to understand bargaining power dynamics within the families assumed it as a single entity (Becker 1965). Due to this over-simplified assumption of 'common preference', Becker's unitary model seemed problematic, especially for policy recommendations. Alternative approaches like cooperative, non-cooperative and collective models later addressed the heterogeneity in preferences among the members and its implications.*

*This study discusses how the existing literature on female intra-household autonomy takes two broad approaches- the first group trying to find the determinants of female autonomy and the other examining different ways of measuring it. Education was one of the most critical determinants in several studies, whether by increasing physical mobility (Rahman and Rao, 2004) or creating employment opportunities. However, not all kinds of employment were empowering; employment outside the husband's farm (Anderson and Eswaran, 2009) and employment with economic visibility (Kabeer 1997) could augment women's autonomy in the family. Asset ownership and control was another important determinant- but using current asset holdings seemed problematic due to its potential endogeneity; so, studies used assets at marriage (Quisumbing and Briere, 2000) or dowry (Brown 2003) as determinants of female bargaining power in the form of increased leisure time. Other interventional policy changes in the form of*

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*increased legal rights for women (Rangel 2006; Adam et al. 2003) and access to credit programs (Janssens 2010) increased female autonomy. However, the success of credit programmes targeted at women depended on their ability to control the loans for autonomous activities affected by social norms. The studies that attempted to measure autonomy used three primary methods- by seeing the effect of an exogenous policy change, an instrument, or the Randomized Control Trial method.*

*Although studies have repeatedly expounded how female autonomy can have spillover effects on child well-being (Quisumbing and Brière, 2000), gender-equality (Aslam, 2007), and can stimulate long-run economic growth by improving human capital (Agenor and Canuto, 2015), it is high time to address female autonomy as a priority in its own right. Further research on this area will help make appropriate policy recommendations to increase female autonomy within and outside families, leading to higher female participation in practical policymaking at national and international levels.*

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## 1. Introduction

Female intra-household autonomy is intrinsically linked to the bargaining power dynamics within the household. Understanding the concept of female bargaining power within a household in a village, state, or country is important to understand gender relations. However, conceptualising gender relations is not an easy task due to its complexities because it embodies economic and ideological issues. Studying gender relations and power dynamics within the household is further daunting because gender norms are highly volatile and affected by varying social hierarchy structures like class, caste, and race. Such social structures are non-uniform across and between time periods and so are sometimes understood and mismeasured or, at best, inadequately. Therefore, researchers still do not understand female intra-household autonomy, a component of gender relations within the household.

Female empowerment within or outside the household has been a focus of discussion in so much literature that sometimes it is interchangeably used with simply 'empowerment'. A few papers have tried to link the concept of female empowerment with Amartya Sen's capability approach. Sen's (1999) work on inequality and poverty has criticised the literature on measuring inequality in welfare economics that were too concerned with ranking different social states. Such ordinal ways of evaluating welfare, according to Sen, failed to encompass the normative evaluations; according to his capability approach, normative

evaluations should be made based on what people can be and what they can do and not simply on what they can consume or what they earn as incomes. Thus, the capability approach rejects any normative evaluation calculated by the consumption of goods, incomes, or physical resources. These are only some means to augment well-being and focus more on the intrinsically important concepts of functioning and capabilities. An ethically and normatively individualistic theory is superior to the standard approaches to measuring well-being in welfare economics and philosophy. It accounts for individuals and not just the household as the smallest entity of the community. Thus, it explicitly acknowledges diversities in gender, race, age, sexuality, ethnicities, geographical locations.

Moreover, it addressed welfare issues beyond the market; such inclusion of non-market aspects of well-being is absent in standard models. It is clear why Sen's capability approach can address gender issues like female rights and autonomy. Due to the complexities of gender relations as discussed previously, many issues like financial welfare, reproductive healthcare rights, voting rights, labour force and political participation, domestic violence of women can be accounted for in Sen's capability approach. However, although theoretically appealing, using Sen's approach to create a somewhat satisfactory and non-controversial measure for female autonomy within her household can be extremely challenging.

Standard theories of female autonomy or bargaining power are not as broad as the capability approach. Most existing literature generally follows two approaches: the first group studies various determinants of female intra-household autonomy or bargaining power. At the same time, the other examines different ways this autonomy can be measured. The female intra-household autonomy is the female's ability to make or participate in decision-making processes relative to the husband's ability to make decisions. The ability to participate in the decision-making process cannot be explicitly calculated. So economists have repeatedly attempted to use variables like education, asset ownership (in some agrarian developing countries, this asset is most commonly assumed to be arable land holdings) in its place, assuming that there is a high correlation between these variables and autonomy. Women's relative physical mobility sometimes measures autonomy itself, her financial security, the extent of decision making in household activities like small or big purchases of commodities, health care, children's education, degree of domestic abuse suffered by her, active participation in the labour market or political awareness. The other body of literature studies factors that can increase bargaining power within the household. For instance, Anderson and Eswaran (2009) showed that in Bangladesh, not women's employment per se,

but their employment outside the house increases their bargaining power. Ownership of assets, sometimes of some specific kind of asset in the context of the women's surroundings, has been attributed to affect her bargaining power in many studies; one such study was by Agarwal (2001) in India. Still, others found that access to some interventional programs like credit programs (such as Grameen Bank's microcredit program in Bangladesh or the Rotating Savings and Credit Associations or ROSCA) can increase female autonomy in households.

A different approach to female autonomy within the household works with transparent marriage markets. According to Becker (1973) and Neelakantan and Tertilt (2008), the local sex ratio influences the spousal age ratio and work to affect marriage markets and respective bargaining powers. A study by Caldwell et al. (1983) showed that households in India had less female autonomy when the husband was significantly older than the wife. Education and, in some context, dowry or 'bride price' have also been linked to enhancing bargaining power. Even assigning a variable as an indicator of intra-household autonomy is difficult because of the nature of unobservability it poses. Autonomy is a latent variable, and often there is no way other than using proxies to characterise the extent or degree of autonomy a woman enjoys in her household. As will be discussed later, the uses of proxies are not free from criticisms as well.

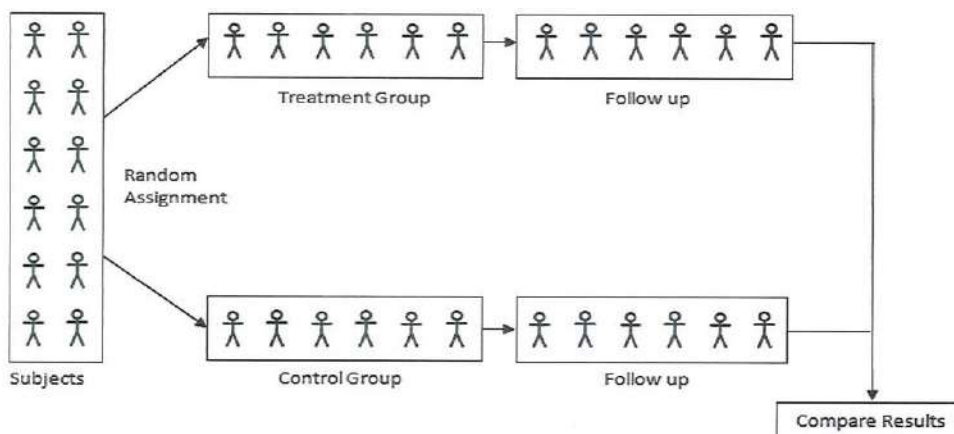
Like other economic and socio-economic studies, one huge challenge faced by the researchers trying to see what factors play pivotal roles in increasing female autonomy within her household is that the determinants and the variables correlated with bargaining power are often difficult to separate. Because factors that have a causal effect on female autonomy and variables highly correlated with autonomy often overlap, policy recommendations based on causality become even more challenging to achieve. Another point to be kept in mind is that causality can also be bidirectional. The causal relationship between factors affecting female intra-household autonomy should not work in opposite directions.

To overcome the intertwined relation of causality versus correlation and to find which factors play instrumental roles in enhancing female autonomy in the household, three broad approaches are usually followed by researchers. The first is to study the effect of an institutional or structural change, e.g. changes in divorce laws, inheritance laws, reforms favouring female empowerment, increasing credit facilities for women. Such policy changes may or may not affect the female bargaining power without necessarily affecting the other observable measures in a model. An example can be an increase in legal rights on the property, which can increase her bargaining power without affecting the amount of land she already owned. Rangel (2006) showed that a change in marriage law

that offered alimony rights and other obligations to couples after their marriages dissolved enhanced female bargaining power in Brazil. Women's programme participation (like the microcredit programs and ROSCA) is similar to policy changes. However, they cannot be directly studied as the researcher has to acknowledge that there is a possibility that only women with specific characteristics will participate in the program. It poses the self-selection issue, and unless the unobserved characteristics which determine this selection process are controlled, the results will be biased. The second way is to use an instrumental variable for bargaining power, but the instrument should not be correlated with the other confounding factors. As mentioned above, an asset in the form of land holdings is often thought to be correlated with bargaining power. However, not all types of assets would be appropriate as instruments. For instance, land brought to marriage rather than current landholdings can be an instrument. However, a better one would be the female partner's parents' landholdings to measure her autonomy in the household. Although a good instrument can overcome many complications in estimations, finding one is highly challenging, especially in the standard national household-level surveys; and using a poor instrument can do more damage than good in econometric estimations. The last way is to carry out Randomised Control Trials or RCTs. Here, a subset of the observations is randomly assigned to participate in a program or interventions, and the outcomes of the treatment and control groups are compared. This approach addresses the self-selection problem of the first approach discussed above, and the simple outline of the methods is illustrated in the figure below.

This paper purports to discuss how other literature has worked on the concept of female intra-household autonomy. Section 2 discusses the leading theoretical models of bargaining between spouses in a household. Section 3 presents the key determinants of female intra-household bargaining power that have come up in existing literature. Section 4 consists of the three main ways researchers used to measure bargaining power and briefly highlights the complexity of disentangling factors determining bargaining power from the proxies. The last section discusses the different effects of enhanced female autonomy, emphasising its importance.

Figure 1: Randomised Control Trials (RCT) to remove selection bias



## 2. Theoretical Models: Bargaining within Household

Initial models of household decision-making or household utility assumed a unitary entity. In this 'unitary' framework by Becker (1965), the individuals within the household had the same preferences and pooled incomes to maximise the utility of a typical utility function. By acting as a single production and consumption unit, the model assumed away any possibility of differences in preferences among the members of the same household; thus, the unitary (sometimes also known as the 'common preference') model automatically assumed that the distribution of assets or incomes within a household, or any other form of bargaining power did not affect the outcomes of production or consumption in any way. Such extreme simplification can be helpful in many settings, especially when the power dynamics within the household are not important. The appeal of the unitary model was in its over-simplification. However, there is considerable evidence- both empirical and by common sense- those individuals greatly differ in their preferences within a household. Haddad et al. (1997) argued that policy prescriptions based on unitary models might be counterproductive. It is because the unitary model postulates that irrespective of whoever receives a policy initiative in the household, outcomes will not differ as everyone has the same preference. However, in practice, the effects of policy interventions differ depending on who receives the intervention in the household. Mexico's anti-poverty program- National Education, Health, and Nutrition Program or PROGRESA- is a perfect example that recognises that households are not unitary decision-making entities. PROGRESA uses the rising consensus on how females' incomes are spent in very different ways compared to that of their male counterparts.

Under this programme, cash transfers are made to mothers in families. They are linked to school attendances of children, routine attendance to health care facilities, and in-kind facilities and nutritional supplements. The policymakers chose the mothers as recipients citing the results by Thomas (1990). It was shown that resources owned by women are used for childcare needs like health and education compared to the resources owned by men. Alderman, Chiappori, Haddad, Hoddinot and Kanbur (1995) argued sufficient evidence against the 'common preference' model. Duflo and Urdy (2004) added a concept of individual 'mental accounts' in a household. Their study showed that women tend to spend more on the needs of their children while men spend more on tobacco, alcohol and other private goods in Cote d'Ivoire.

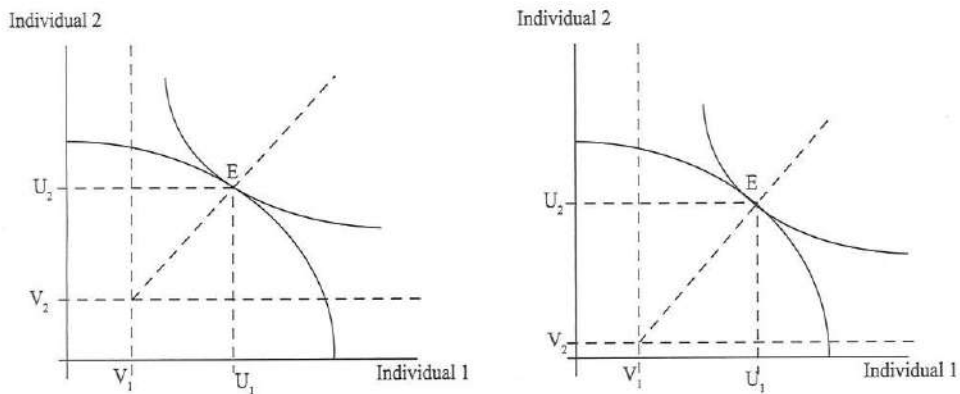
Even if the empirical findings are set aside for a minute, real-world issues alone can sometimes provide evidence favouring differing preferences within a household. Agarwal (1997) quoted the Minister of Agriculture at an Indian Planning Commission seminar held in 1989- "*Are you suggesting that women should be given rights to land? What do women want? To breakup the family?*" As Agarwal very correctly inferred, this statement assumed that the stability of a household or marriage depended on some inequality in possession of resources (in this case, land) and that self-interest or individual preferences could be so contradictory that it could even lead to the dissolution of the institution of marriage.

Due to the assumption of an altruistic household head or decision-maker who had the 'common preference' with the rest of the members, Becker's unitary model seemed problematic, especially for policy recommendations. Alternative approaches of household decision making started to address the heterogeneity in preferences among the members- namely the cooperative, non-cooperative and collective models. Manser and Brown (1980) came up with the cooperative framework based on Nash equilibrium being one of the earliest formal critiques of the restrictive assumption of common preference. The cooperative model relaxed the common preference assumption but retained the 'income pooling' assumption from the unitary model. In this two-person household, the outcome depended on the bargaining powers of individuals. With the new notion of bargaining power came the concept of fall-back position/ outside option/ threat point. The fall-back position of an individual within the household showed how well off he/she would be if the household (or the institution of marriage, in which case the two persons are husbands and wives) dissolved. Upgrading in the fall-back position indicates a better deal the person gets in the household if the threat points are not exceeded. The diagrammatic representation in Figure 2 shows how a decrease in fall-back position ( $V_2$ ) shows that utility of individual 1 increases

and individual 2 decreases. Individualistic bargaining power depends on the respective fall-back position, which depends on extra-household environmental parameters (EEPs) coined by McElroy (1990). EEPs can include parental wealth, unearned incomes, various legal bindings governing marriage and divorce. As evident in Figure 2, the cooperative model ensures Pareto optimality- no one person in the household can be made better off without making the other person worse off. Even if one person's fall-back position changes, the equilibrium will still be on the utility possibility frontier. The collective model is similar to this concept, where both the spouses' bargain over the Pareto efficient frontier.

By examining the expenditure in Mexico, Bobonis (2009) concluded that the PROGRESA program depicted the pattern as predicted by the collective model. In Bangladesh, Indonesia, Ethiopia and South Africa, expenditure patterns were again consistent with the collective model (Quisumbing and Maluccio, 2003).

Figure 2: Illustration of decrease in the fall-back position of individual 2 in a cooperative model



In contrast to the cooperative model, the non-cooperative model relaxes three more basic assumptions- outcomes need not be Pareto efficient, income may or may not be pooled, and contracts need not be enforceable and binding. Therefore, unlike in the collective and cooperative models, the outcome may not be Pareto optimal, and the equilibrium may lie inside the utility possibility frontier.

Lundberg and Pollak (1993) introduced a combination of the above models where individuals could be in 'separate spheres' of activities but still cooperate in the household decision-making process. The idea addressed that threat points, or fall-back positions may not be relevant in decision-making cases between spouses on smaller or comparatively minor issues. As a result, the dissolution of marriage or divorce was not a possibility even with conflict of preferences and general disagreements. In such cases where divorce is not a credible threat, individuals



can withdraw into their respective spheres, sometimes defined by socially acceptable or traditional gender roles that are taken as 'granted' without direct bargaining. Such withdrawals are called internal threat points. The spouses can continue to bargain over other decisions like meals and childcare in a fashion similar to the Nash cooperative game. Another alternative bargaining model by Katz (1992) is the Reciprocal Claims Model, where everyone in a household has his/her own income and makes decisions on the allocation of resources by satisfying only his/her budget constraint. In this model, any income transfer, land, or other resources must be acknowledged explicitly. So how the household allocates resources is the aggregate of all the individuals' resource allocations decisions. Bargaining in this model occurs when resources are transferred between household members.

The models mentioned above as alternatives to the over-simplified 'common preference' or unitary household model do not directly address the issue of gender dynamics or asymmetries in bargaining power within a household. However, because they acknowledge that preferences are different among the same family members, it is possible to incorporate the dynamics of bargaining in these models. They may provide relatively more valuable and realistic insights for economists and policymakers. However, like most formal economics models, they are restricted by their underlying assumptions. It is difficult to grasp these models' complete intricacies of gender relations and bargaining power. They do address the differences in preferences as the bargaining component but still do not incorporate the vast array of factors, both quantitative and especially qualitative; analysis of how self-interest plays a role in the bargaining process and how social norms can affect the outcome in such models has to be made which are both beyond the scope of such formal set up of economic modelling.

Formal models that do not address how social norms shape household decision-making may give misleading outcomes and be especially detrimental in policymaking. By assuming the household as an entity in isolation and ignoring the socio-economic, institutional, and other extra-household factors in which the household/ marriage is embedded, these models sometimes only capture the partial equilibrium scenarios.

Another qualitative factor that is difficult to analyse in the modelling framework is how differences in perceptions and self-interest affect individuals', especially women's, bargain. Agarwal (1997) pointed out that women's relatively less bargaining power within a household can be due to two main reasons—either her failure to perceive her true self-interest (called a 'false perception') or by her 'altruism' compared to her male counterpart. The idea of women's 'false perception' or 'false consciousness' is that they tend to be less self-aware and

simply put the rest of the family's needs before their own. The complexity arises because in such scenarios, simply observing women's overt conformation to a well-established system of inequality (or her lower degree of autonomy) does not necessarily indicate that they have accepted the legitimacy of such discrimination; it may very well be an act out of fear of the social stigma that is present in a patriarchal society or to put it simple put- her survival strategy. A vast range of researchers has supported the notion that women tend to be more 'altruistic' or *selfless than men when it comes to spending their share of income for family needs rather than personal needs*. As discussed earlier, the PROGRESA program in Mexico provides direct cash transfers specifically to the mother for this exact reason. It is not uncommon for South Asia to forfeit their claims on inherited assets for their brothers and eat last during meals after the husbands and children have finished theirs. Although this may seem to indicate the selflessness of a wife and mother within the household, it may not be the case. For instance, women in matriarchal societies do not wait for their husbands to return and have evening meals within the same country. Also, by being 'altruistic', women may maximise their own long-term welfare within the family. It may be because, in many South Asian rural areas, women can be forced to depend on a male figure socially and/or economically, either on the husbands or during their widowhood, on their sons. Mothers who show a 'son preference' may also be motivated by self-interest rather than altruism, recognising that they may need 'male mediations' after the husbands' deaths. So, to sum up, understanding gender relations is complex because an act of female 'altruism' may very well be of self-interest. Here again, the fall-back positions are different for men and women and in reality, both may be motivated by self-interest but value family welfare to different degrees.

### **3. Determinants of Female Intra-Household Autonomy: Findings from Existing Literature**

This section discusses the factors or determinants that are most commonly thought to increase a married woman's autonomy within her household. Before explaining the findings of much literature on this topic, it is crucial to stress the complexities of entangling determinants from the variables correlated to autonomy. In general, among the range of various variables that can significantly affect the bargaining power of a woman within her marriage, some are quantifiable. However, a lot of them are also qualitative and difficult to measure. Moreover, some determinants of female autonomy are such that they themselves need to be bargained for. An appropriate example in the context of some agrarian

economies and in some South Asian countries is arable land. While landowning can enhance a woman's threat point in a marriage, gaining ownership of the land that is rightfully hers may also need some bargaining in the first place. Following this line of thought, a state or society needs to have the social and legal legitimacy for women owning lands. Thus extra-household factors can also play crucial roles in how much their intra-household bargaining can be improved. Lastly, implicit bargaining, rather than explicit, is even more challenging to grasp as social norms can mould a person's perceptions. In many societies, 'gender roles' are taken for granted and are rarely discussed or bargained for openly. The most acknowledged determinants which have repeatedly come up in literature are discussed below.

***Educational attainment and its relation to women's fall-back position within the household***

Female education, her education compared to her husband's and even her father's education relative to her husband- have all been mentioned to enhance intra-household bargaining power in different studies. Education is widely used as a vital factor because it offers better access to information, increases the chances of finding a job, more labour force participation and the likelihood of adapting to new technologies in general. Rahman and Rao (2004) found that in India, when physical mobility is assumed to be an indicator for female autonomy, better-educated women had more bargaining power by a channel of increased access to information.

Perhaps the variable that seems to be most intricately linked to women's educational attainment is employment- to put it in the simplest form. Generally, a higher level of education for a woman enhances her outside options for employment opportunities and makes her more likely to contribute to the household income generation process directly. However, the reality is not that straightforward. There can be a considerable difference in employment effect on female intra- household autonomy, depending not on whether she works but where she works. In a study by Anderson and Eswaran (2009), using the data from Matlab Health and Socio-Economic Survey (MHSS) 1996, it was shown that a woman's contribution to household work was taken as 'granted' and offered no additional worth to her. Even when a woman worked for her husband's farm and contributed to the farm's income generation process, her work itself had no salutary effect on her 'say' within the household. She could not exercise any control over the income that the farm generated. Only her income mattered and increased her fall-back position within the family. Therefore, not employment per se, but only earned income outside husband's farm enhanced autonomy. A similar notion was put forward by Kabeer (1997), who stated that before the onset of

Ready-Made Garment (RMG) industries in Bangladesh, most women in lower-income households engaged themselves in casual, informal and home-based works which, despite all their hardships, has no 'economic visibility'. After they entered the factories, the people of Dhaka saw an uncommon scenario of large groups of women, apparently from lower-income households, commuting for work early in the morning and later in the evening. This drastic visibility of their workforce participation increased their bargaining power within the families.

However, one study linked educational attainment negatively with freedom of movement (a variable often treated as indicators or measures of female autonomy). Balk (1997) was probably the only study that showed that women with higher education had less mobility in Bangladesh. A plausible explanation is that educational attainment is often associated with socio-economic status. Therefore, although Bangladeshi women from better-off families could afford to spend more on educational attainment, they could also afford to choose not to work and practice seclusion. The relationship between employment and education is often thought to be like a U-shaped curve, rather than a linear one—that is, paid employment is high among women who have little/no education and are highly educated but low for women who have some, but not much education. Sometimes other factors like marriage can determine the effect of education on labour force participation. Malhotra and DeGraff (2000) found that in Sri Lanka, highly educated married women were more likely to participate in the workforce than equally educated single women. Other than the explicit benefits of her own education, education can simply signal her social status in some context. In Bangladesh, Quisumbing and Briere (2000) found that the more educated a woman and her father were compared to her husband, the more bargaining power she had within her household.

***Asset ownership and its control in improving women's fall-back position within the household***

The ownership of assets and control over them have been said to enhance women's bargaining power as assets may provide outside options and act as direct income sources from rent or indirectly by their use in production activities.

Typically for rural and agrarian families in developing countries, where female autonomy is pressing, arable land is almost certainly the most valuable asset. However, simply owning land formally in one's name is not enough unless she can exercise control over that land. As Agarwal (1997) stated, three other factors play pivotal roles: the society's support system favours the woman's land ownership, the legal right in community resources and the state and other institutional support. The improvement in fall-back position from owning and

having control over land (or any other kind of asset) comes from the ability to survive outside the family in case of the household's dissolution or divorce. Here the ability to exercise control over, and not merely ownership of land depends on other extra-household but crucial factors like inheritance laws, society's attitude towards a woman's claim on her land, her legal literacy, her access to government's land administration bodies and legal machines- all of which, in turn, affect how her opinions are treated within the household. However, the measurement of assets is not limited to land ownership. Doss (2006) used a measure of farmland, savings, and business assets for a study in Ghana.

Because there is no universal consensus for whether a woman's current asset is an outcome of bargaining power or a source of it, many studies have used her assets to the household during marriage as a more appropriate measure. Quisumbing and Briere (2000) asked the women in their study to recall the assets owned by them before the marriage, e.g. land, livestock. Another study by Brown (2003) revealed that the amount of bride price or dowry women brought during the marriage was positively associated with higher potential for leisure time in the household. Studies showing dowry during the marriage enhances female bargaining power later within the household assume that it is an economic resource exogenous to labour supply. Moreover, dowry can significantly enhance female autonomy if the threats are 'credible'. There is a support system provided by the social norms, legal rights, and divorce system. For instance, in a paper by Thomas et al. (1997), an asset at marriage was an indicator of bargaining power. In Indonesia, wives can take away their assets to the family during marriage if the family dissolves. However, it is also quite common in many South Asian countries that women who bring a dowry to the household during a marriage can be later pressurised or even domestically abused by husbands to bring in more dowries from their fathers' houses during the marriage- which is a result of normalisation of the practice of dowry in the society. Thus, domestic violence can be used to extract resources from spouses and their families, as shown by a study in India by Rao (1997).

### ***Interventional programs and policy changes in improving women's fall-back position within the household***

Sometimes an intervention, which can be in the form of a change in policy, legal system, programs that enhance the accessibility of credit for women, can play a significant role in determining her intra-household bargaining power. Such extra-household factors come in many forms and sizes. However, they can be broadly divided into changes in legal property rights, community-level interventional

programs by state and/or NGO's and programs to increase the accessibility of capital (mostly credit) for women.

Among literature that attempted to see whether changes in legal rights could affect female intra-household autonomy, one is by Rangel (2006). As briefly discussed in section 1, this paper saw the effect of a change in marriage law in Brazil which offered alimony rights and obligations to couples during the dissolution of marriages. The study compared hours worked by females and expenditure on children's education in families affected by the law to the families who remained unaffected by this law and found that in the families who were affected by the law, women enjoyed more leisure and resources were spent more for the education of older daughters. Another example was a change in inheritance law in Maharashtra and Karnataka, which gave equal inheritance status to girls compared to the boys. Deininger et al. (2010) showed that this change increased females' years of schooling among those whose fathers died after the change compared to those whose fathers died before the change. With data from Ontario, Canada, Adam et al. (2003) showed suicide rates among older married women dropped after a reform in family law that improved women's asset positions during the dissolution of marriages.

Other studies saw the effect of community-level interventions on female autonomy. Imai and Eklund (2008) used a Heckman Selection Model and Propensity Score Matching method to show that women's autonomous groups were more effective in improving child welfare than women who simply received external support in rural areas Papua New Guinea. The propensity score matching method was also used by Janssens (2010) to show that a program named Mahila Samakhya increased community-level trust and women's social capital in the state called Bihar in India. The women 'treated' with the intervention were also more likely to participate in local educational and infrastructural projects.

Organisations that increase the accessibility of credit or capital to women compared to men can strengthen women's autonomy in families. Numerous papers take the Grameen Bank's microcredit programme in Bangladesh or the Self Employment Women's Association (SEWA) in India as appropriate examples of this type of intervention. However, merely providing women with access to credit may not necessarily translate into their increased levels of bargaining power. Rahman (1999) showed that in a Bangladeshi village, 78% of the loans given to women were used by the husbands or sons in the household; Goetz and Sengupta (1996) also showed that 56% of loans that the women received were invested for male activities. Keeping in line with the apparent women's inability to keep control over the loans they received, Kabeer (1997) interpreted that with unequal interdependence within families and fewer outside

options for wives, women preferred to spend for the family as a whole, rather than concentrating on strengthening their economic positions within the household. Ngo and Wahhaj (2012) pointed out that access to credit for women helped to fortify their bargaining positions within households by autonomous activities only if certain conditions were met, namely, if she could invest the capital in an autonomous activity and her husband could not invest it in any other activity that would be more profitable. The best outcome could be expected if the capital could be invested in a cooperative activity where both the spouses would have to contribute actively.

***Social norms and perceptions in improving women's fall-back position within the household***

Apart from the obvious and relatively easily quantifiable economic factors, social norms and perceptions also play crucial roles in determining female autonomy both within and beyond the household. However, since society's attitude can be rarely captured in empirical research, finding appropriate ways to incorporate this aspect of female autonomy can be challenging. Generally, both the spouses enter an institution given a set of social rules and norms during a marriage. The extent to which the women or both the spouses will adhere to these norms is determined by the partner or/and the social peers. In places where the control is exercised mainly by the peer groups in the society, restructuring social attitudes towards gender equality can be very productive; in contrast, in cases where the husband is the main person exercising control over norms that the members within a household practice, changes in peers' attitudes may not be as effective.

In numerous societies, patriarchal authority ensures that the social norms, systems and expectations are designed to favour men irrespective of the social status, religion, culture or ethnicity. Hence, the so-called 'cooperative' system in society is shaped to maximise the welfare and perceived interest of the male compared to that of the female counterpart. Therefore, as discussed before, the success of credit programs on enhancing female autonomy within households depend on their ability to control the loans for autonomous activities. In many socio-economic contexts, the success of such credit programs in enhancing female autonomy may simply be impossible if these programs are not coupled with changes in the underlying deeply rooted social stigmas towards autonomous entrepreneurship by women. In the rural agrarian settings in which most micro-credit programs operate, social capitals like kinship, caste values, patronage and even solidarity in the form of friendships can contribute to the success or failure of credit programs in enhancing female autonomy within family. It is a perfect example where two factors of female autonomy, credit availability and the

society's norms regarding how much control she can exercise over the credit that she received, are complimentary. Agarwal (1997) pointed out that women in rural areas of some developing countries are members of such social norms. They have the right to village commons (VCs) either by birth or marriage. The VCs provide a wide array of goods for daily use and cash benefits, especially those living at subsistence (sometimes during floods, droughts, crop failure, extreme climate hazards). However, gaining access to cash transfers is not enough in areas with strong female seclusion as the woman still needs a male as a mediator to access the marketplace. Social capitals can also provide critical non-market transactions like interest-free credits from relatives or friends.

The aspect of social perception is different from social norms. It addresses the difference between what a woman actually contributes, needs, or ability versus what society perceives as her contributions, needs, and ability. These two can be very different from one another. For instance, it is almost universally true that unwaged, unpaid housework is perceived as less valuable than wage-earning works as they are financially and physically more obvious. As Kabeer (1997) showed in her study on ready-made female garments (RMG) workers in Bangladesh, the sudden involvement of thousands of women from lower-income households during the prosperity of this sector increased their economic visibility. It changed the perceived contribution towards garments workers. Economic visibility was crucial for households where the husbands were employed in different small self-employment and faced greater volatility in income generation; in such families, the females' relatively steady flow of earnings, no matter how little, decreased the households' uncertainty in income and expenditure. Even in the west, cultural devaluation of home-based work was found in a study on American households by England and Kilbourne (1990). As for the case of perceiving women's needs as less important than men's, it is common in many communities that their needs are either underplayed, treated as secondary or subordinate and in extreme cases even identical to families' needs; in the same social setting, men's needs are usually treated as primary and different from the households' needs and significant on their own rights. Such deep-seated social devaluation of female contributions and needs leads to gender deprivation and discrimination in families and workplaces. For instance, in South Asian rural areas, many women received less wage for the same task compared to men based on the assumption that they are less productive or have a lesser commitment towards the work they do or simply because they are assumed to be secondary or supplementary earners in the families and need not be paid as much as the 'primary' earners or men (Agarwal 1997). In these cases, women's improvement



of fall-back positions by increasing their accessibility to credits, village commons, and jobs will have a less than desirable effect.

It is important to note here that social norms are different from social perceptions in the sense that the former relates to well-established customs and traditions accepted by all, whereas the latter is one of the many components of social norms; social perceptions can be changed or sometimes in the long-term be institutionalised gradually into social norms.

### *Other factors and their effects on women's fall-back position within the household*

Depending on the context where female autonomy is studied, various other factors can play significant roles to determine women's bargaining positions within households. For instance, in a study by Wu and Li (2011) based on data from China, the variable on whether the woman in the household had a first child who was a boy was related to better fall-back position within the household and which in turn was shown to have a positive impact on her nutritional intake and overall improvement in health status. However, a paper by Heath and Tan (2018) showed a different determinant in the context of South Asia. In many parts of South Asia, having a son is thought to be culturally and economically more beneficial than having a daughter. Thus the 'son preference' among parents may indicate that women with sons can have better bargaining powers within the household than those with daughters. However, this study showed that having sons do not necessarily translate into more autonomy for the mothers. Heath and Tan argued that having a daughter raises the mother's participation in the decision-making process within the household and her freedom of mobility to a greater extent than having a son. They said it is especially true when the mother has older daughters. They discussed several reasons why this is plausible; other studies which show that mothers have greater relative preferences for spending on their daughters than on their sons compared to the fathers are consistent with this conclusion because then mothers of the daughters may seek out more autonomy to direct resources to their daughters. To explain the conclusion of why having a daughter may increase the mother's mobility outside the household (often used as a measure of freedom or autonomy), they provided the following reasoning. Older daughters can assist the mother in home-based works, which in many rural areas of South Asia, an older son would not. It allows the mother to have time to enter the labour force and, in turn, increases mobility outside the house.

Moreover, the practice of providing dowry during a daughter's marriage might mean the household with a daughter will have lower future consumption (especially in the rural context). So to smooth lifetime consumption, both parents

may choose to work. Following the same line of thought, if a son provides higher insurance for the mother after she becomes widowed, having a daughter may drive her to compensate for the lower insurance she can expect from her daughter and participate in the labour force. Higher returns from sons may also encourage the mothers to invest more time for the sons doing household work, thus decreasing their likelihood of taking up outside employment opportunities. Among other factors affecting female autonomy within the household, Rao (1997) showed that husband's alcohol consumption in determining female intra-household bargaining power through the measure of domestic violence. Women whose husbands were alcoholics and became violent were more likely to remain in marriages if they had less bargaining power. They also added that this is part of a broader set of underlying factors that played important roles in female intra-household autonomy.

It must be noted that not all factors carry equal weights, and the importance or extent to which factors can determine female autonomy in families will largely depend on the context. For example, in agrarian economies, land (primarily arable land), its legal ownership and the ability to exercise control over that ownership may be the most crucial factor. Land can be strong supplementary support for women in arid or semi-arid areas where arable land is rapidly declining. Moreover, in some cases, wages from employment are often linked with access to land; like in South Asia, rural non-farm income earnings are greater among households with some land than completely landless ones (Chadha 1992). Land ownership is also crucial during severe subsistence crises (such as droughts and famines). So many rural agrarian families usually sell other forms of assets first (for example, gold/silver jewellery, household utensils, livestock) but keep the most productive asset they consider as the last resort- land. Under the urban-industrial context, other forms of property can carry more significant importance than land ownership in determining female autonomy and fall-back positions within her marriage. So, policymakers must prioritise factors to enhance female autonomy according to the context.

#### **4. Measuring Female Intra-Household Autonomy**

Perhaps one of the most complicated tasks in economic modelling is quantifying something that cannot be measured directly. Female bargaining power within families is inherently unobservable. The best that a researcher can do is find good proxies for female bargaining power. Although many good indicators can be highly correlated with female autonomy, they do not necessarily have a causal relationship. Hence, it is challenging to conclude appropriate policy measures depending upon these indicators. The challenge faced by researchers is then to

identify which variables affect or have causal relationships with female intra-household autonomy and which are merely correlated to it. A significant part of empirical studies on female autonomy strives to guide policymakers in designing effective policy instruments to strengthen family rights or autonomy. Hence, researchers often adopt methods to disentangle the channels of causations that link interventional steps to outcomes of higher female autonomy. The causal relationships can be only concluded with confidence where the econometric estimation techniques are robust. Usually, there are three main ways in which researchers have tried to identify causal effects of policy interventions on women's intra-household bargaining power. They are explained in Section 4.1.

#### **4.1 The methods of finding the causal factors affecting female intra-household autonomy**

##### ***(i) Institutional Changes or Structural Shifts exogenous to the family***

Researchers often use natural experiments to assess the effect of a change in institutions on female bargaining power within households. In these natural experiments, any policy change at the community level outside the household's control can be attributed to the institutional change. One such institutional change can be an improvement in women's legal rights. As pointed out earlier in section 3, interventional programs have been shown to increase female intra-household bargaining power, e.g. a study by Rangel (2006) showed that changes in marriage laws in Brazil that extended rights of alimony and obligations to couples had a redistributive effect on power among spouses favouring women- through a higher amount of leisure time enjoyed by them and reallocation of household expenditure for the education of daughters. Another institutional change was noted by Deininger et al. (2010), who showed that in Maharashtra and Karnataka of India, inheritance laws were changed, which raised the status of daughters, making it equal to that of the sons. This change positively affected the educational attainment of girls whose fathers died after this legal change. A study by Adam et al. (2003) was also mentioned in section 3 to show how an institutional change in the form of legal reform improved women's fall-back positions in the form of improved financial stability in the instance of a marriage dissolution reduced suicide rates in Canada. Other examples of such institutional changes are already provided in Section 3 and are not iterated here.

However, apart from such apparent changes in law and order, other structural changes exogenous to the family can have casual effects on female autonomy. For example, Qian (2008) studied men's income from orchard-based crops and women's income from tea cultivation in different counties in China. He showed

that counties with more tea had higher ratios of female to male children- that is, survival rates of the girl child were higher in tea-based counties indicating higher incomes of the mothers in the families, translating into higher bargaining power. Another study used data from Bihar where the interventional program called 'Mahila Samakhya' compared 'treated' villages with 'untreated' villages by the Propensity Score Matching (PSM) technique, and the women who participated were more likely to contribute to local educational and community projects and also had spillover effects on the non-participant females in the neighbourhood; the externality caused by those who participated in the program was that even the non-participant women exhibited higher levels of trust and support and were more likely to participate in the community-level activities compared to the females in non-treated villages.

*(ii) Instrumental Variable Approach*

The second method is to find variables that correlate sufficiently with the measure of female bargaining power within the household but must not directly affect the outcome measures. To be a vital instrument, two critical assumptions must be met for valid econometric results: the Exclusion Restriction and the Relevance Condition of the instrument. These two conditions ensure that the instrument used in the econometric modelling does not suffer from the same endogeneity problem or that it is itself 'exogenous'.

Several factors that are thought to increase female bargaining power are arguably endogenous, and hence many studies have attempted to use instrumental variables for potential endogeneity problems. For instance, Brown (2003) studies how the size of dowry that the wife's family gives during the marriage can affect her allocation of leisure and her say in household spending patterns during her married life. To address the fact that there can be other confounding factors that can affect both the size of dowry and her autonomy within the family, Brown used the regional shocks in crop production in the year preceding the marriage and the sex composition of the bride's and groom's siblings as instruments, as both of these are logically exogenous. The study showed that higher dowries are associated with more leisure time enjoyed by wives. Quisumbing and Briere (2000) also noticed possible endogeneity in women's assets and how it affected the share of household spending on children's basic needs. As instruments of women's asset at marriage, they used both the spouses' educational attainments, age, age squared, birth order, number of siblings and living brothers, both spouses' families' land ownerships and their parents' educational attainments.

Similarly, in Osmani (2007), to show how participation in microcredit programs in Bangladesh affected land and non-land asset ownership, the problem

of self-selection into the microcredit program was acknowledged along with the potential problem of endogeneity. To rectify this, Osmani used the size of the household's labour force, number of dependents, and the household head's primary occupation as instruments for participation in the programme. However, another study showed that the Hindu Succession Act (HSA) in India increased her decision-making ability within families and affected her labour force participation positively; however, in this study as well, exposure to this reform (HSA) was determined endogenously by the timing of her marriage and so instrumental variables were used- namely her year of birth, religion and state.

The instrumental variable approach's attractiveness lies in the method's simplicity, and in some extensive national-level surveys, relevant instruments can be found. However, finding a single instrument that satisfies both the conditions for the instrument to be solid and valid can be challenging in some specific contexts. Using a weak instrument can do more harm than good in an econometric model.

### *(iii) Randomized Control Trials (RCT) as the Gold Standard of project evaluation*

The third approach used to isolate the relationship of bargaining from outcomes is randomised interventions. In the Randomized Control Trials (RCT), participants in an intervention program are randomly assigned into treatment or control groups, as demonstrated in figure 1. With real-life data, such randomisation can be done at the community level, for instance, when interventional programmes are rolled over time. However, the first community that will receive the programme is chosen at random.

The RCT is viewed as the 'gold standard of programme or project evaluation because sometimes, in different interventional projects, participants have the choice to self-select themselves into the programme. As a result, if only people with specific characteristics are more likely to participate in the programme, the analysis of the comparison between participants and non-participants will not be accurate as the participants' unobservable characteristics were different, to begin with. So, unless unobserved characteristics that decide the program's self-selection are controlled, the results will be biased. A real-life example is the PROGRESA in Brazil- which has a randomised design since the distribution of all the variables for both treatment and control groups are equal prior to the programme intervention. Comparing the locality by averages of age, education, earnings, health care utilisation did not reject the hypothesis that the averages were equal between treatment and control groups. It validates the difference-in-difference method to compare the families that participated in PROGRESA and

those eligible in control communities. Although this approach also has its limitations, there is a consensus favouring using the RCT approach as one of the several elements in evaluating a project.

#### **4.2 Proxies vs Factors of female intra-household autonomy**

In reality, several variables seem to be closely related to the bargaining status of a woman within the family or are highly correlated with desirable outcomes of female autonomy; however, this by no means can guarantee a causal relationship on female autonomy. This common dilemma between correlation and causation raises the complicated question while measuring female autonomy within the household. This distinction between variables that are simply correlated to rather than the causes of increased female intra-household autonomy has to be made to prescribe successful gender-linked policy instruments. Valid proxies in econometric models should reflect female intra-household autonomy but should simultaneously not be influenced by, or endogenous, the outcome variable in question. The most used proxies are usually different forms of the woman's income (earned vs unearned), assets (inherited, at marriage, current), human capital, and briefly discussed a few more.

##### ***Income and employment: earned vs unearned***

At first glance, women's earned income from employment can be thought to be highly correlated to her bargaining status within her family; if women can control the money they earn, they may have the ability to directly influence decisions in household purchases of children's education, health care and other such essential expenditures. It has been shown that even the mere potential to earn raises women's outside options and increases autonomy in a cooperative bargaining framework. As discussed previously, researchers also showed that women's intra-household autonomy only increased when they worked outside the husbands' farms. However, there is a problem with establishing any causal relationship between women's earned income by participating in the labour force because earned income can arguably be an endogenous variable. As Basu (2006) convincingly put, a woman's earned income reflects her decisions on the time allocation and labour force participation- which in turn can be the outcome of her existing bargaining power. A wife with higher autonomy can decide to get employed despite her husband's unaccommodating behaviour. In this scenario, an increase in her bargaining power from her labour force participation results from her previous bargaining status. To address this issue of possible reverse causality, empirical works have often opted for suitable instruments. Another problematic issue of using earned income as a proxy for bargaining power is that

sometimes work itself can be disempowering. Under extreme poverty, women may be compelled to get employed for survival and exposed to unsafe or complex work environments.

One way to bypass this problem is to use non-labour income, which can be exogenous. Unearned or transfer incomes are less related to labour force participation. This approach can solve the issue of confounding factors related to labour force participation and bargaining power but can raise some additional concerns- for instance, women who receive unearned income or transfer payments may be substantially different from those who do not, and this underlying difference can give misleading results. Also, the assumption that the unearned income is independent of the labour market may not be accurate if a significant amount of this comes from pensions, unemployment benefits.

### *Assets*

Ownership and the ability to practice control over one's assets may be highly related to bargaining power within the family. One can expect that, like employment, asset ownership can provide women with higher bargaining power through enhancement of outside options or fall-back positions. In some cases, assets can act as sources of direct or indirect incomes and senses of securities.

Perhaps the most potent form of asset, especially in agrarian rural areas of developing countries, is land, and it has often been used as a proxy for bargaining power. However, the concept of 'ownership' in legal terms can be complex, and in many places, land as a property is challenging to be titled formally. Moreover, in many regions, having formal legal rights over land may not get translated into being able to practice the control over that land, especially for women who may need to depend on some male intermediaries like their husbands, sons, brothers or male relatives for this. As the countries grow to be more urbanised, fewer families depend on agricultural activities, and other assets like housing can be used as proxies instead. Among other forms of an asset are livestock, agricultural equipment, durable goods, business or financial assets.

In many cases, the problem with using women's asset ownership is that relatively smaller numbers of surveys include information on asset ownership (especially assets in different forms) at individual levels and mostly only at the household level. It poses complications while using these data to establish a causal relationship of female asset ownership on her autonomy. However, Doss (2006) used farmland and a broader measure that included farmland, savings and business to demonstrate that women's asset ownership increased the expenditure share on food and education in Ghana. Beegle et al. (2001) used the wife's perception of her share on assets owned by the household, such as the house they lived in, vehicles, jewellery, furniture, utensils.

Some went beyond physical assets and used the women's social networks as assets and related them to their well-being outcomes.

However, current asset holdings, just like earned income, are likely to be affected by decisions during the marriage that leads to asset accumulation- and are, therefore again endogenous. To deal with the econometric problem of endogeneity present while using current asset holdings, sometimes inherited assets are thought to be better measures. Current assets can result from the women's bargaining power within the marriage, rather than its source- inherited assets are free from this problem. For instance, Quisumbing and Briere (2000) asked respondents about their assets before the marriage, like land, cattle, durables goods, and jewellery. Thus, inherited assets are less vulnerable to be influenced by decisions within the marriage and determined mainly before the union of the spouses. However, inherited assets or assets at marriage may be subject to other endogeneity issues- e.g. if inherited assets are correlated with individual unobservable attributes or if they are endogenous to the marriage due to some sort of marriage market selection. Using asset ownership as female bargaining power may be bidirectional and pose an endogeneity issue. Women with more autonomy may be better at acquiring, retaining, and practising control over their assets which may confer additional bargaining power.

### *Human Capital*

The most common form of human capital used in economic analyses is education because it affects desirable outcomes of gender equality inside households both directly and indirectly. Both- woman's educational attainment and the educational attainment relative to her husband are associated with increased intra-household bargaining power. Along with the notion of 'assets at marriage' as mentioned previously, education can be an attractive indicator for bargaining power for several reasons. For example, even though they may be endogenous due to the marriage market selection and correlated with unobservable characteristics of particular individuals, they are exogenous to the decisions made within marriage. Moreover, in many religions and cultures, a wedding is one of the two occasions (the other is 'death') when substantial assets transfer. So, marriage and educational attainment assets can be good proxies for bargaining power. However, one cannot rule out the cases that in many regions of developing countries, e.g. in some South Asian countries, girls get married at a very early age and whether or not they can continue to pursue higher education may often depend upon the decisions of their husbands or in-laws, in which case, her education can no longer be considered as exogenous to the decision-making process within the marriage.



### ***Other proxies for female intra-household autonomy***

Several other literatures have tried to use some alternative variables to address women's intra-household bargaining power. For example, Rao (1997) showed that men who were alcoholics were more prone to be violent in their marriages and women who had lesser bargaining power remained in the marriages despite facing marital abuse. Wu and Li (2011) showed that giving birth to a boy as a first child improved women's positions within households in China. There are also national survey questions that ask women about their perceptions of appropriate social norms- whether they think it is acceptable for the husband to abuse or physically hit them under certain circumstances mentally, or whether they think they can make or participate in decisions on contraceptive usage. These questions about self-evaluation or perception can also be closely related to female autonomy in the household. In Aslam (2007), data from Pakistan was used, and household headship was treated to measure female autonomy. However, the paper also addressed why using self-reported female headship to measure bargaining power can be problematic. For instance, a woman may simply be a token head of the household due to her age and the actual decision-making process can be done by a male member in reality.

Usually, national surveys also ask women about the extent to which they can participate in decision-making processes when there is a big purchase in the household or when choosing whether or not to utilise health care facilities for themselves and their children, and whether they need to be accompanied by a male household member when they go out of the house or not. However, independent mobility may also be undesirable when a male member accompanies a woman for security. In cases where seclusion norms in a society denote prestige and family support, many women may choose autonomously to limit unaccompanied mobility; independent mobility in these cases can be a sign of poverty rather than higher autonomy (Kabeer 1997). For instance, the 'purdah' norm in many predominantly Muslim societies is socially accepted. Women trapped in extreme poverty may be compelled to choose between the conflicting options of survival needs and social status in such communities.

It must be mentioned that apart from the bargaining dynamics between spouses, other factors may also be decisive depending upon the cultural and social norms in which the household is embedded. In many countries where living with extended families is quite common, resource allocations made by the husbands and wives may not be the only relevant variables, and the decision-making power of other important household members such as the mother-in-law and father-in-law can be critical.

## 5. Conclusion

Most existing literature usually explains the importance of female bargaining power by relating it to other desirable outcomes. The questions commonly posed in empirical and qualitative economics and econometric research are- what variables are influenced by intra-household bargaining power and how are they altered by changes in the distribution of relative bargaining power between the spouses, and even, do they matter? However, what constitutes an appropriate measure of desirable outcome for the woman or the household as a whole may vary. In this case, literature usually relies on Thomas's (1990) 'inferential approach', i.e. when the proxy for the female intra-household autonomy has a significant impact on the desirable outcome, the inference is that the woman prefers this outcome. For instance, assuming that there is preferential heterogeneity among spouses, if a woman owning more assets results in more food expenditure in general, it can be inferred that the woman prefers to spend more money on food and can fulfil her preference with increased bargaining power.

Researchers on female autonomy have covered some outcome variables: consumption preferences, production preferences, labour force participation, and children's welfare measures. Consumption and expenditure are often used as measures of welfare- they are thought to be more suitable than income as income can fluctuate more, and households tend to smooth their consumption path over their lifetimes. Using consumption measures as desirable outcomes for females in the household is that most surveys do not include individual-level data. So it is impossible to link how changes in bargaining power affect individual consumption patterns within a household. As a result, for any public good within the family, its changes cannot be attributed to a particular individual's change in autonomy without making robust and often restrictive assumptions.

Nevertheless, studies have shown that an increase in female autonomy in the family can affect the household's budget share in food expenditure, education, health care utilisation (Duflo and Udry, 2004; Doss 2006; Quisumbing and Maluccio, 2003). Another study by Beegle et al. (2001) showed that a pregnant woman with her own share of household assets is more likely to utilise professional antenatal care and give birth in a professional health care centre. This study was based in Indonesia. Results suggested that better educational attainment of the woman than her husband, a background of relatively higher social status, and having a father more educated than her father-in-law positively affected her reproductive health care decisions.

How the status of bargaining power of women affects production decisions, especially in agricultural households. Jones (1983) demonstrated that in the rice

fields of Cameroon, women did not prefer to allocate labour to the fields owned by men, even when it could result in higher yield. In the same context of production, Von Braun (1988) showed that if women had less bargaining power in the family farm, the beneficial effects of technologies are enjoyed by men, even though the technology was initially targeted for women. The concept of labour force participation can sometimes be related to production decisions, but this need not be the case always. The decision-making process may determine the time dedicated by a woman in the labour force within a household and, hence, by her relative bargaining power. However, labour force participation may not necessarily get translated into improved well-being of the woman. It may seem evident that empowered women may choose to participate in labour. The earnings can further improve their fall-back positions inside the families, providing them with better bargaining power. However, often, especially in families living in poverty, the women may have no other choice but to work, exposing them to unsafe working conditions. Some measures of bargaining power can also determine time allocation in household chores. For instance, Zhang and Chan (1999) showed that in Taiwan, the amount of dowry affected the number of hours spent by the husband in household works. Another outcome measure often used is the leisure time enjoyed by women.

Many studies on intra-household resource allocation and female autonomy within the household have established that if the mothers have superior control of resource allocation, there are higher positive effects on desirable outcomes for children's welfare than when the fathers control the same resources. Quisumbing and Maluccio (2003) showed that increasing resources controlled by women in Bangladesh and South Africa lead to higher spending on children's education. They added that this was not just because mothers act more 'altruistically'; there is robust economic logic for why this might be the case. Given that the wives are mostly younger than their husbands and women have a higher life expectancy, mothers can be more interested in investing in children's education. They are more likely to become dependent on their children when they get old. Other studies have shown a positive association between empowered mothers and the better nutrition status of children.

Although studies have repeatedly expounded how female autonomy can have spillover effects on child well-being as measured by health and education (Quisumbing and Brière, 2000), gender-equality (Aslam, 2007), and due to the feminisation of child-rearing practices can stimulate long-run economic growth by improving human capital for the future generations to come (Agenor and Canuto, 2015), it is high time to address female autonomy as a priority in its own right. Improvement in female intra-household autonomy can affect female well-

being directly by reducing marital violence. Panda and Agarwal (2005) showed that assets owned by women in the form of land ownership reduced incidences of domestic violence in India. However, if successful, attempts to increase female autonomy in families will not be limited within the household. Many developing countries now treat gender equality as one of their primary goals. Achieving female autonomy both inside and eventually outside the families will lead to higher female participation in national-level policymaking. Because women's experiences are different from men's, their opinions need to be represented formally in discussions; more women in leadership positions can bring about different perspectives in policy measures, especially in issues of reproductive health care, wage differential based on gender, equality in legal rights, most of which are often decided by men who do not necessarily experience the implications of such policy decisions. Further research on determinants and measurements of female intra-household bargaining power will help make appropriate policy recommendations to increase female autonomy within and outside families, leading to higher female participation in significant policymaking at national and international levels.

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