HOUSEHOLD ASSET CHOICE AMONG THE RURAL POOR IN GHANA

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1. INTRODUCTION

It is generally well known that Ghanaian households have been generally low savers in the last four decades (Aryeetey 1997). But the fact that saving is low does not mean households have no assets (de Janvry et.al 1991). This raises considerable interest in the issue of what determines how households allocate their portfolio of assets. It is certainly important to examine the diversity in asset choices rural households make.

A diverse portfolio of assets is not only critical for households to cope with unexpected shocks, but can free access to a range of consumption smoothing options that are vital for them to maximize utility over time. Diversity in asset choice is also important in order to allow households to manage risk in any one period. These attributes are especially important in developing countries where the lack of sufficient access to consumption smoothing mechanisms can perpetuate and worsen poverty. A household that is constrained in its access to credit or other assets may not be able to survive a negative shock. In practice, many households do survive, but at the cost of adopting an extremely risk averse production strategy. In many rural areas, for example, this strategy might be reflected in the sacrifice of expected return as farmers choose safer, lower yield crops. This perpetuates the cycle of poverty and hampers economic growth as the credit and/or other constraints push farmers to a sub-optimal path[1].

There is ample evidence from the early work of Polly Hill (1963, 1970) that makes us believe that the rural environment leads to asset choices that facilitate production regularly in order to guarantee income and consumption across generations as opposed to high frequency income shocks. She has discussed in her pioneering work how "the forms of capital, represented by cocoa trees, cattle, fishing nets, manure, lorries, and so forth, play a crucial role in indigenous economies" (Hymer 1970). She shows how the accumulation of these assets have been influenced by prevailing social structures and individuals' attempts to break out of the established modes of production, usually through migration in order to add to whatever assets they may have. She shows that, in order to preserve or add to the value of assets that 'rural capitalists' may have, they are influenced by various social practices and norms that make it expedient for them to hold combinations of different types of assets that will consist of both productive assets and financial assets. The institutions had not been developed at the time of her study to facilitate the financialization of assets with ease. "The major problem of capital accumulation in underdeveloped economies is not so much a shortage of savings but a

[1] See Morduch (1993) for an exposition and test of this argument.

lack of institutions to channel the existing or latent surplus into productive investment" (Hymer 1970).

In the absence of proper institutional arrangements, while financial assets may eventually yield higher returns, the cost of holding them may be too high for poor rural households in the short term (Steel et.al. 1997). The higher short-term costs may arise, in part, from the structure of the financial market, which is highly fragmented. It leads to a domination of informal finance and a clear limitation on the kinds of financial assets that can be profitably held. In the situation where institutions are dysfunctional or inadequate, the risk profile of the environment worsens for financial markets, and wealth may be expected to assume a much greater role in household portfolio allocation than should ordinarily be the case. It can be used as the means to create other opportunities for asset diversification in countering significant covariate and idiosyncratic risk. How this is done is the subject of this paper.

Having ascertained what assets households keep, it is intended to establish how these are related to various socio-economic characteristics of the rural household and introduce the way in which social norms may influence decision-making. In particular how does financial wealth of a household influence asset choice? This is based on the expectation that wealthier households will hold more financial assets. But, while wealth will be expected to affect the choice between financial and productive assets, there is no reason why the portfolio of productive assets should vary with wealth since these should depend basically on the rates of return on them. We expect to show that in the poor and risky rural environment wealth affects significantly the types of productive assets that households have, a consequence of a desire not only to smooth consumption in the face of low-frequency income shocks, but to reduce further the occurrence of shocks arising from such covariate risks as drought and brush fire, and provide for consumption across several generations.

The analytical approach is to develop a solid picture of the asset choices of households using mainly data from the third and fourth rounds of the Ghana Living Standards Survey (GLSS3 and GLSS4[2]). After identifying the various asset holdings, the paper examines how these differ by wealth of household. A preliminary investigation from GLSS1 data suggests that the poorer groups make less use of formal financial mechanisms, particularly bank accounts. It is important to ascertain how other variables explain asset holdings.

While we expect that the choice of productive or financial assets will be influenced by the extent and speed with which assets can be made liquid, we also expect that the cost of holding either will be affected by the structure of financial institutions, communal practices related to inheritance, obligations and rights of people inheriting communal/ family property toward other members of the community, societal attitudes to debt, etc. If people could exchange one asset for another without any problem, they would only be

[2] Our analysis of GLSS4 data is largely incomplete, forcing us to present mostly the better analyzed GLSS3 data.

guided by the direct returns on them, but this is in practice very difficult and the extent of difficulty varies with financial wealth. For example, in results for most of the rural population in GLSS1, 80% of the lowest expenditure quintile could not sell their land, while only 59% of the top expenditure quintile could not sell their land[3]. Land tenure represents one of the major issues, but the paper will also look at other structural barriers to formal sector credit, including a look at collateral. As in land tenure, we will look to see how these structural barriers affect different income groups. This is done by discussing rural institutional arrangements and how they may influence the asset choices that households make.

2. CONCEPTS OF RURAL HOUSEHOLD ASSET CHOICE

It is generally expected that since rural (agricultural) households cannot diversify income sources to the same extent as other urban households, their income shocks will be more severe and risk insurance mechanisms will differ accordingly. The high risk environment and the frequent incidence of large income shocks heighten the demand for mechanisms for risk management, even if only for sheer survival. When insurance markets are missing and insurance possibilities are limited, an act of intertemporal trade to effect resource transfers over time such as saving and credit becomes important for consumption-smoothing (Besley 1994). This trade approach to the study of household asset choice has evolved from the early studies of saving behavior.[4]

As earlier indicated, there are a number of possibilities for smoothing consumption in the face of expected income shocks. One well known method of income smoothing among farming households is to diversify crops, their location and the general set of economic activities they engage in (Townsend 1993). This is not surprising considering that contrary to the conventional image of farm households non-farm activities provide an important share of household incomes (Reardon and others 1994). Both GLSS3 and GLSS4 data show that in Ghana, non-farm self-employment provided over 30% of rural household incomes while farm activity brought in more than 35%. Wage labour provided an average of 20% of rural household income.

An extension of the technique of diversifying crops is the diversified holding of physical/real assets. Holding different kinds of real assets is one way in which rural households will differ from urban households whose assets are more likely to be financial. But their real assets will be divided between productive and not-so productive assets. One of the more interesting works in this area using survey data was carried out by Rosenzweig

[3] Indeed, a significant correlation (as per the tests described below) was found between wealth and the ability to sell lend.

[4] Determining the factors behind saving behavior and household asset choice begins with measures of income and expenditure. The use of household survey data to study incomes and expenditures was given a boost by Deaton (1997) in his work on a "microeconometric approach to development policy". This work provides useful insight into proper use of survey data to extract household incomes and expenditures and explain trends in these.

and Wolpin (1993). They found that buying and selling productive assets in semi-arid India could provide a hedge against idiosyncratic risks. But this may not be enough in an environment of high covariate risks as many households holding similar assets may attempt to sell off their assets at the same time. Indeed, Czukas, Fafchamps and Udry (1995) find from Burkina Faso survey data that livestock are not traded in this manner, i.e., as a buffer stock. This, of course, raises questions about why poor households would refrain from selling their assets when faced with adverse shocks.

Other possibilities for income smoothing include the avoidance of technologies that may be considered risky based on their level of knowledge and initial cost, as well as the use of credit, land and labor arrangements that may balance risk against average return (Morduch 1995). Fafchamps and Pender (1997) show that farmers in semi-arid India will not undertake an irreversible investment in a well, despite its profitability. "Irreversibility constitutes an additional disincentive to invest". In other words, the asset quality of the well is reduced by the fact of its irreversibility. This might have been improved in the presence of a well-functioning credit market that would reduce the direct impact on the households' portfolio.

Aside from smoothing consumption over time, there is also the possibility of smoothing consumption across different groups of people. This amounts to pooling the idiosyncratic risks of people/households and coinsuring against them. Household survey data might only give some insight into this. But there are a number of stylized facts that have been presented in the literature with regard to how such risk-pooling might take place and help in consumption smoothing. In effect households generally seek other households that can provide support in times of hardship and enter into a contractual relationship with them. The search for other households as an insurance often embraces such social features as ethnicity, religion, business relations, neighborliness, etc. But the effectiveness of any mechanism for containing idiosyncratic risk depends on the amount and quality of information that insurers and the insured have about a transaction and their ability to enforce the contracts that they agree upon. The large number of mechanisms that involve more than two persons has led to the growing significance of group schemes in the literature as tools for risk-pooling. The effectiveness of various insurance mechanisms is often limited by the extended liabilities of the insured in terms of joint ownership of property, etc. The variation in the way groups function and the effectiveness of their insurance function impairs the effectiveness of formal and informal savings and credit schemes, household investments and other asset choices.

In all the above income-smoothing strategies involving the build-up of assets prior to the event of a shock, it is not always clear how household wealth influences the choice in strategy. While the share of financial assets in their portfolio will theoretically be dependent on their wealth positions, there is no reason why in theory the holding of different types of productive assets should be dependent on wealth. There is some indication, however, that this might work through the effect that wealth has on liquidity and access to credit markets. Morduch (1997) uses an 8-year panel of Indian households to determine that borrowing constraints in consumption-smoothing are strongly related to asset position in villages with poorly developed financial institutions. His study suggests that the poor in

villages will also face the most borrowing constraints and are more likely to take greater precautions through spatial diversification of plots.

3. RURAL HOUSEHOLD CHARACTERISTICS AND ASSET HOLDINGS

In this section, we discuss first the demographic characteristics of rural households, their income sources and then patterns in asset holdings. We estimate directly the value of the assets of the households as provided by the households during the surveys.

To determine the total value of assets per household we use the values supplied for livestock, stored crops, farm equipment, houses, farms, land, non-farm enterprises, net loans, financial savings, consumer durables, shares and net remittance assets. For each of these assets, we construct the value of assets by multiplying the number of the asset held by each household by the value provided for that household. For stored crops, we focus on the two most important crops grown and use sales data from sold crops to create prices and values. We also allow for the amount spent on storage. In order to estimate the value of non-farm enterprise assets, we multiply the total value of the asset by the proportion of the enterprise income that accrues to the household. Borrowing includes original loan amounts less repayments made in the preceding 12 months.

Household Demographic Characteristics

All four household surveys since 1987 show that households belonging to higher expenditure quintiles had fewer members than those in the lower quintiles. In the rural coastal areas, mean household size was 5.85 for the lowest quintile in GLSS1. It was 6.9 in the rural forest area and 7.51 in the rural Savannah area at the same time. Incidentally the rural Savannah area also had the highest incidence of poverty in Ghana. For the highest quintile in the three areas, household sizes were 2.91, 2.79 and 3.55 respectively. There was no major change in these ratios for GLSS2, GLSS3 and GLSS4. There were also no significant differences between urban and rural household sizes. There is every indication, however, that poorer households tend to be larger.

In terms of age dependency, the surveys show that rural households generally have a higher dependency ratio than urban areas. Whereas the proportion of dependents was 42.9% in Accra in GLSS1, it rises to 51.2% for rural areas. There is very little change in GLSS3 and GLSS4. The contrast between urban and rural areas is believed to reflect migration and fertility patterns (GSS 1995). People of working age are more likely to migrate from rural areas and raise the burden on those remaining there.

Increasingly, female headed households have become important as about 29% of households in rural areas are headed by women. This might be due partly to early migration patterns that made more women *de facto* household heads. There is evidence however that female *de jure* household heads are growing in number.

There is a higher likelihood of an urban household member being unemployed than a rural household member. The rural situation is quite likely explained by the fact that unemployed persons can be expected to migrate into larger centers in search of urban jobs. The fact of under-employment in rural areas is however not captured in the household surveys. We must also point out the greater incidence of working children in rural Ghana. In GLSS3, 40.6% of all rural children aged 7-14 were found to be in paid employment, as against only 8.1% in urban areas. Note that in GLSS2 (1988/89) only 28.6% of rural children were working. Most of the rural child workers were helping on various farms and taking the place of migrating older relatives. GLSS4 suggests hardly any change between the last two surveys.

Data from all four rounds of household surveys suggest that individuals resident in urban areas were much more likely to have attended school than in rural areas. In the rural Savannah area, only 29.3% of the sample had attended school in 1992, compared to 85.7% in Accra. In view of the low school attendance rates, literacy rates in rural areas were poorer than in urban areas. From GLSS2, (1988/89) we note that only 32% of the rural sample could read and only 30% could write. Also only 41% could do simple calculations. The proportions were far worse for females than for males. In urban areas, the proportions that could read and write were over 55%. About 68% of urban dwellers could do the same simple calculations.

Household Incomes

Going beyond the earlier reasons attributed to Deaton, Coulombe et.al (1997) have suggested four reasons why Ghanaian survey data always indicate a shortfall in income over expenditure, namely, that "first respondents may find it more difficult to recall all their income as many income sources may be informal or transient; this is less likely to be a problem with expenditure, the bulk of which may be more frequent and regular. Secondly, respondents may have an incentive to understate or not declare certain sources of income if they fear that the information may be used for taxation purposes. Thirdly, respondents may have difficulty in calculating profits from household enterprises for which no formal accounts exist, and may simply not record them. Fourthly, the GLSS questionnaire is more comprehensive with regard to expenditure data than income data, and particular features of the questionnaire design suggest that there may be significant non-recording of income from secondary jobs and income transfers" (p.8).

The GLSS reports list the following sources of income from households: (a) income from employment, (b) agricultural income, (c) non-farm self-employment income, (d) actual and imputed rent, (e) income from remittances, and (f) other incomes. In the first round of GLSS agricultural incomes turned out to be the largest source with 53.4% followed by non-farm self employment income at 23%. By the third round, agricultural incomes had dropped to 39.7% with non-farm self-employment income at 34.9%. The rapid loss of share for agricultural incomes is questionable since it does not conform to any known structural change in the economy.

An interesting feature of the income sources is the diversity portrayed at the individual household level. When households are placed in distinct socio-economic categories for employment classification, depending on their reported major sources of income, it turns out that in most households, there is a much broader range of income sources beyond the major employment source. Thus, for example, in GLSS3 many households that have identified wage employment as the major source of income also have many members engaged in self-employment activities, including agricultural and non-agricultural activities. Thus, for households indicating private informal wage employment to be the main source of income, only 55.6% of their incomes came from the sector, while another 14% came from self-employment agriculture and 12% from other non-farm self-employment. More important for the rural areas, however, is the fact that for households that reported that self-employment agriculture was the main source of income, there was a far less likelihood of there being other sources of income. It is interesting that the use of diverse income sources as a risk-minimizing strategy by agricultural households is reduced, compared to urban households. This runs counter to the general expectation. We may attribute this to the fact that urban incomes for the lower quintiles are not significantly different from rural incomes. In addition the opportunities for a more diversified income source are far greater in the urban setting.

Household Assets

GLSS3 shows considerable variety of assets[5]. But there tends to be a concentration in production assets. Thus, it was not surprising from GLSS3 that the majority of households (53%) had a member who owned land, even though in GLSS4 we observe a sharp drop to 39.7% owning land. Among wealthier households people were more likely to own land (60%). Among the lowest quintile 50% of all Ghanaian households have a member who owns land. In terms of the rural/urban divide, the likelihood of owning land shows hardly any difference.

On farm ownership, it may be noted that most farming households do not own their farmland. In rural areas people are more likely to own their farms, though. In GLSS3 as many as 65% did not own their farmland, followed by the deedless (29%) and this hardly changed in GLSS4. In the rural areas 40% own their farmland but without a deed and 53% farm without owning the land.

Table 1: Farmland Ownership Among Total Sample

Farmland Ownership	Frequency	Percent
Household Heads owning farm with title deed	334	6.4
Household Heads owning farm but without title deed	2017	38.7

[5] The tentative analysis of GLSS4 shows far less variation.

Household Heads not owning farms	2858	54.9

Source: Computed from Ghana Statistical Service, GLSS3 (1993).

In terms of income groups, the wealthy have (marginally) better documented property rights. The proportion of each group who did not own land was fairly constant across quintiles, ranging from 57% of the lowest quintile to 55% of the top quintile. But looking at those who owned their farms, 9% of the top quintile had deeds to their property, compared to 3% of the bottom quintile. Among those who own their land, property rights are not uniform. Most people, however, can use their land as a liquid asset as indicated in Table 2. The urban population is less likely to be able to sell their farm. While 39% of the urban population had no right to sell their land, 12% could use it for security. In rural areas, only 30% could not sell and 4% could only use it for security. Not surprisingly, the poor are less likely to be able to sell their land. As many as 38% of the bottom quintile could not sell their land.

Table 2: Property Rights of Farm-Owning Households

Rights	Frequency	Percent
Sell	495	21.2
Use as security	109	4.7
Both	1016	43.4
No right	720	30.8

Source: Computed from Ghana Statistical Service, GLSS3 (1993).

Houses are an important asset of many households. But, while a fair number of people own their houses, a larger percent get theirs rent free. The urban/rural divisions show a clearer dichotomy in terms of house ownership. In GLSS3 a majority of urban dwellers get their house rent free (43%), followed by renting (39%). In rural areas, the majority own their houses (48%) followed by rent-free occupation (43%). Looking at housing tenure by income groups also show some interesting patterns. The lowest quintile is concentrated in the rent-free category (53%) followed by owning (35%). Among the top quintile, 39% own their houses, followed by rent-free occupation (32%), and renting (28%). The distribution in GLSS4 follows very much the same pattern.

Pensions are in general not a major asset among Ghanaian households, and even more so among rural households. Unfortunately, while only 52% of the people discussing non-self or family employment indicated that they expected to receive a pension, they do not provide the expected value of these pensions. Not surprisingly the poor are under-represented in the pool of people expecting pensions. First, they had the lowest percentage of people answering the question (and thus less likely to fall into the eligible pool). The first and second quintiles were the only groups in which more than a half did not expect any pensions. Indeed, for the poorest quintile as many as 64% did not expect any pensions in 1992 and 1998.

Rural Household Asset Allocation

Within rural households that are also more likely to be poor, it is expected that their level of wealth as well as other demographic characteristics will exhibit a significant correlation with their choice between financial and other assets. Wealth should, however, be less significant in the choice between productive and less productive assets. The poor are expected to hold easily liquefiable assets, such as livestock and stored crops. The ease with which liquefaction of assets can take place should reduce as incomes/expenditures rise. This is somehow borne out by GLSS3 data that show that the wealthy tend to have significant assets in non-farm enterprises and use savings vehicles.[6] (The GLSS4 data is much less clear on this). The poor rural folk, represented in the lower quintiles, on the other hand, make little use of either loans or savings, suggesting a credit constraint for them. There is indeed a preponderance of livestock and farm assets in the poor households' portfolio as reflected in Table 3 below. In GLSS4 the significance of non-farm equipment as assets is significantly reduced for all income groups, while the possession of farms appears to take on a new significance. Another significant observation is the fact that the holding of livestock is most important in the highest quintile in GLSS4. (See Appendix).

Table 3: Asset Types by Relative Wealth: Mean Asset Shares in the Rural Household Portfolio per Quintile

	Shares in total portfolio by quintiles (by expenditure)				
Asset types	First	Second	Third	Fourth	Fifth
Livestock	0.32	0.31	0.29	0.30	0.26
Farm equipment	0	0	0.01	0	0
House	0.20	0.21	0.21	0.21	0.20
Farm	0.32	0.35	0.30	0.29	0.24
Land	0.06	0.08	0.08	0.07	0.07
NFE Assets	0.12	0.18	0..13	0.19	0.17
Net Savings	-0.03	-0.13	-0.03	-0.02	0.04
Of which: Net loans	0.05	0.18	0.08	0.11	0.09
Of which: Savings	0.02	0.05	0.05	0.09	0.13
Consumer durables	0.01	0	0	0	0.01
Net remittances	0	0	0.01	-0.05	0

[6] S*usu* and formal accounts are lumped together in GLSS III

Source: Computed from GLSS3 data, Ghana Statistical Service, Accra, 1993.

Table 3 suggests that the not-so-poor (represented in the fourth quintile) present an interesting case with a concentration of assets in land and non-farm enterprises (NFE) (productive assets) that outstrips the wealthier fifth quintile. This is again the case in GLSS4. While the fifth quintile carried a much larger share of financial savings than the others in the earlier survey this was not the case in GLSS4. In keeping with their active role in NFE's the fourth quintile has a higher share of net loans in GLSS3[7]. The poor in the lower quintiles concentrated their portfolio in livestock and the farm, which was not surprising given the rural nature of poverty.

For these rural households, while there is no variation in the share of houses, significant variation occurs in the share of farm and non-farm enterprise assets. Interestingly they have hardly any farm equipment as assets. Despite the fact that the lower four quintiles are all dissavers, the poorest (lowest quintile) have the lowest share of loans in their portfolio. This is probably explained by the fact that they also have the least savings and lowest value of assets.

The way in which household wealth influences asset choice can also be expected to reflect in the choices that rural and urban households make. Table 4 below shows the domination of non-farm enterprise assets (47%) in urban areas in contrast with the domination of farm assets in rural areas (31%). But this should not simply be a matter of whether they live in urban or rural areas. Access to major or regular markets is important for households and it will be expected that those with access to such markets are likely to have a more diversified portfolio, combining agricultural and non-agricultural assets. Unfortunately, however, we lack data on market accessibility.

Table 4: Asset Types by Household Location

	Shares in total portfolio	
Asset types	Urban	Rural
Livestock	0.11	0.30
Farm equipment	0.00	0.00
House	0.13	0.20
Farm	0.09	0.31
Land	0.15	0.07
NFE Assets	0.47	0.16

[7] These are loans for the last 12 months. Net loans is defined as the amount of the original loan (contracted in the last year) less repayment in the last 12 months. It includes lending from all sources, from friends to banks.

Net Savings	0.05	-0.04
Of which: Net loans	0.25	0.10
Of which: Savings	0.30	0.06
Consumer durables	0.00	0.00
Net remittances	-0.01	-0.01

Source: Computed from GLSS3, Ghana Statistical Service, 1993

Investigating the asset choices within the context of demographic indicators provides some insights to complement what we have already seen. One would expect households dominated by young income earners to allocate more to productive assets, while older persons look more at stable assets. In Table 5, while farm assets show little variation across the different age groups, there is certainly more variation for non-farm enterprise assets. They matter more to younger household heads. Older people concentrate their wealth in their house and land. Livestock shows an interesting progression; it is very important to the young, but not as important to the older groups. Younger people are certainly more conscious of rates of return on different assets and have the physical capability to engage in other economic activities, hence their greater involvement with non-farm enterprise activities. It is also interesting that younger people have higher saving and borrowing ratios than older people.

Table 5: Asset Types by Age of Head of Household: Mean Asset Shares in the Household Portfolio

	Shares in total portfolio by age of household head					
Asset types	11-20	21-30	31-40	41-50	51-60	60+
Livestock	0.37	0.32	0.34	0.33	0.25	0.23
Farm equipment	0	0	0.01	0	0	0.01
House	0.02	0.13	0.15	0.21	0.29	0.28
Farm	0.37	0.28	0.28	0.31	0.38	0.29
Land	0.02	0.06	0.06	0.06	0.08	0.10
NFE Assets	0.30	0.24	0.20	0.13	0.12	0.08
Net Savings	-0.09	-0.02	-0.05	-0.01	-0.10	-0.02
Of which: Net loans	0.19	0.10	0.14	0.09	0.14	0.03
Of which: Savings	0.10	0.08	0.09	0.08	0.04	0.01
Consumer durables	0	0	0.01	0	0	0

Net remittances	0	0	0	-0.04	-0.01	0.01
Number of observations	36	634	762	590	531	547

Source: Computed from GLSS3 data, Ghana Statistical Service, Accra, 1993.

In Table 6, a basic difference in household portfolio is that while households headed by men have a greater concentration of assets in livestock, female headed households tend to focus more on non-farm enterprises. This is not surprising, given the earnings patterns in rural areas. One interesting feature of the asset structures for men and women is the relatively higher share of loans in women's portfolio and a lower savings share. The larger share of loans in the portfolio of women may be associated with the fact that they are more involved in non-farm enterprise activities that are more likely to attract loans than farms and livestock.

Table 6: Asset Types by Gender of Head Household: Mean Asset Shares in Rural Household Portfolio

	Shares in total portfolio by gender of head	
Asset types	male	female
Livestock	0.32	0.24
Farm equipment	0.01	0
House	0.21	0.19
Farm	0.30	0.33
Land	0.07	0.08
NFE Assets	0.11	0.27
Net Savings	-0.02	-0.09
Of which: Net loans	0.09	0.14
Of which: Savings	0.07	0.05
Consumer durables	0.01	0
Net remittances	0	-0.03
number of observations	2208	892

Source: Computed from GLSS3 data, Ghana Statistical Service, 1993.

The variation in asset choice as a function of education is also interesting as there are some pronounced differences. The more educated tend to utilize formal savings mechanisms. The borrowing variable allows for money borrowed from friends,

neighbors, traders, etc., while the only informality allowed for in savings is *susu*. Livestock seems to be favored most among those with a little education, while avoided by those with no or high levels of education, probably for very different reasons. Also, non-farm enterprise assets seem to grow in importance with education and are especially important for the highly educated. There is a distinct outlier: those with no education clearly concentrate their wealth in their house. This is probably because they are landless and poor, barring access to what would probably be other asset choices. We found little variation in the migrant status of households and their asset choices. While this was expected to show in the values of farms and a domination of liquid assets, we observed no major differences.

Table 7: Asset Types by Education of Head of Household: Mean Asset Shares in the Household Portfolio

	Shares in total portfolio by education level (**rural population**)				
Asset types	None	Primary (1-6)	Middle (7-10)	Secondary (11-17)	University (18+)
Livestock	0.09	0.26	0.25	0.21	0.12
Farm equipment	0	0	0	0.01	0.02
House	0.82	0.19	0.17	0.13	0.19
Farm	0.08	0.32	0.32	0.26	0.09
Land	0	0.07	0.08	0.07	0.10
NFE Assets	0	0.16	0.20	0.15	0.32
Net Savings	0	-0.02	-0.03	0.17	0.13
Of which: Net loans	0	0.06	0.12	0.12	0.06
Of which: Savings	0	0.04	0.09	0.29	0.19
Consumer durables	0	0.01	0.01	0	0.01
Stocks	0	0	0	0	0.01
Net remittances	0	0	0	0	0
number of observations	2	367	1068	136	18

Source: Computed from GLSS3 data, Ghana Statistical Service, 1993.

Analyzing the Asset Choices

Aryeetey and Udry (1998) modeled the asset choices of rural households using the GLSS3 data. They used an inter-temporal choice model with the assertion that if all of the assets available to the household were financial assets, each asset's returns would be

independent of the portfolio of the household and the portfolio composition would be indeterminate. The household would be indifferent between all portfolios it could hold. However, this is not the case when assets are used in household production. If in addition to the financial asset there is another asset which is used in the household enterprise, output of the enterprise will depend on purchased inputs as well as on the asset itself. They therefore made a number of extreme assumptions including the following: that there are neither short-sale constraints nor irreversibilities in investment, that the household is risk-neutral, that there is a financial asset available, and that there is a single physical asset held by households which is used directly in production. If these assumptions held then household ownership of the physical asset should be independent of household wealth. Demand for that asset should be determined entirely by: (a) the return on alternative assets; and (b) the marginal productivity of that asset in the household enterprise. Household wealth affects neither (a) nor (b). Any change in wealth is reflected in changes in holdings of the financial asset only and leaves holdings of the physical asset unchanged. Obviously, household characteristics affect the nature of the physical asset, but two households with the same demographic and social characteristics are expected to have the same asset composition even if their wealth levels differ. Any variation across these households in wealth is expected to be matched by variation in holdings of financial assets only.

In operationalising the model, Aryeetey and Udry (1998) constructed four simple asset categories: house (which is the value of the house plus consumer durables), farm (the value of livestock, the farm, farm equipment, and other land), non-farm (the value of assets of the non-farm enterprise), and finance (the value of cash balances, financial savings, shares, net remittance assets). Of these assets, housing entered the utility function directly and housing stock was expected to increase with wealth. Since farm and non-farm assets were used directly in production the analysis was expected to apply. Even though they expected that after controlling for household social-demographic characteristics, variations in wealth would be unrelated to holdings of productive assets, this hypothesis was not evident from the analysis of the household level data.

Aryeetey and Udry (1998) also examined the bivariate relationships between holdings of financial assets and holdings of other assets, focusing on the bivariate relationships between financial assets and holdings of productive assets rather than the relationship between overall wealth and holdings of productive assets in order to minimize the consequences of measurement error. The non-parametric regressions of farm assets and non-farm assets on holdings of financial assets showed a clear positive relationship. In fact, this relationship was just as strong as the relationship between housing assets and financial assets. They also found that holdings of financial assets were positively correlated with the share of non-farm assets in the total value of directly-productive assets. The composition, as well as the level of productive asset holdings was related to financial wealth, again contradicting the model.

When Aryeetey and Udry (1998) added the household characteristic components to the regressions their basic conclusions remained unchanged. Holdings of farm assets and non-farm assets remained strongly and statistically significantly related to financial

wealth. Farm asset holdings were strongly correlated with the household demographic structure; increasing with the number of prime-age men and women in the household. Education was uncorrelated with farm asset holding, however. In contrast, holdings of assets used in non-farm enterprises were most strongly correlated with the number of prime-aged women in the household, and were unrelated to the number of prime age men. The maximum education of a household member was (weakly) positively related to non-farm asset holding. The results indicated that both prime age men and women contributed to the productivity of farm assets, but that women contributed most strongly to the productivity of assets used in non-farm enterprises.

4. SOCIAL NORMS AND ASSET CHOICE IN GHANA

There are a number of social institutional norms and practices that influence asset choice. The most important of these may be inheritance practices and attitudes to credit, debt, investment and private ownership of property. We examine here first how notions of inheritance, migration, etc. are used in asset decision-making, and then consider the other options that are introduced by group dynamics.

A lot has been written about Akan and other property rights and how access to various resources is arranged (e.g. Clark 1994; Okali 1983; Hart 1982). Polly Hill (1963) has discussed such rights among Ewe fishermen and cattle owners on the Accra plains. These suggest that personal ability (often indicated by own wealth) as well as age position among kin are important criteria in succession. Indeed, in most matrilineal systems, which will embrace most of the forest and coastal parts of Ghana, inherited access to farmland and houses involve practices and allocation criteria that essentially ensure that the non-poor will likely receive the most and best resources. For example, Clark (1994) reports that in searching for a successor to any deceased person, the criteria applied by family elders include "character of the candidate, past help given the deceased, need, and the ability to make good use of the resource, passing over close relatives of known incompetence or irresponsibility" (p.99). Noting that in most of these communities, 'people with character' are often perceived to be the generous and kind, extended families will prefer to let control of family assets go into the hands of those who can add to them in order to make a larger number of people benefit. Communities and families tend to place control over their resources in the hands of the non-poor who will multiply these and grant other resources to the rest of the community or family. "This ideal legitimises the particularly broad discretion and flexibility exercised by the *abusua panin* in allocating the virgin or long-fallowed land required on a long-term basis for permanent tree crops such as cocoa or oil palm" (Clark 1994, p.99). The spirit behind focusing on the 'generous rich man' in the family is captured in the popular saying that "It is he who has that can give".

Among the things that people who have inherited land and houses have to do is to use the return from such assets to look after the rest of the family. Apart from paying school fees and medical expenses, "kin can also ask to live in such houses at little or no rent, farm small amounts of such land for subsistence, or borrow heirloom cloths and valuables to wear on special occasions" (Clark 1994, p.100). Kin can be expected to borrow money and other

farm inputs, a fact which would partly explain why a considerable part of the borrowing that is done is from family, friends, etc. While the GLSS data did not provide information on the value of inheritance in the assets of households, there is reason to believe that a large part of the land and house holdings have been inherited.

Essentially, when farmland is granted to male or female members of an extended family by the family head, they are given only small areas, seldom exceeding an acre or two, in order that they can generate only ample income to take care of the essential needs of their own nuclear families. They are not necessarily intended to let the recipient become wealthy. For most people, capital accumulation in order to generate larger returns at a future date should be the outcome of a private endeavour that falls well beyond the resources of the extended family or community. As Mikell (1989) shows, the kinship ties in many places changed or were weakened with the search for higher-return activities, such as cocoa growing, which led many men to move from their immediate family holdings to other areas where they would be less encumbered by family or communal obligations. But reducing these ties, for example through migration, takes away the social insurance that is provided, forcing men and women struggling to accumulate new capital to develop their own insurance, hence alternate asset choices.

In developing new forms of insurance, one of the considerations for maintaining the value of the asset is to keep away 'unnecessary dependants' who will seek to draw from the asset. In holding assets in less liquid forms, the pressure from relations to assist with their subsistence production or consumption is reduced. "No one asks a man to sell his cows or farm in order to pay a nephew's school fees". For this reason, the expectation that migrant farmers will have a higher propensity to hold financial assets is reduced. Being known to have liquid assets increases the number of likely 'dependants'. Hill (1963) showed that migrant cocoa farmers tended on average to be wealthier than indigenous farmers. The fact is most of their assets are in land holdings. Hill (1963) shows clearly how migrant cocoa farmers continued to buy more land, whenever they could. It is simply a way of smoothing intergenerational consumption while reducing the likelihood of the dissipation of the assets. The frequency of covariate risks is considered to be low, while the idiosyncratic ones are insured against by membership of a family. Obviously as family ties weaken, diversification into other productive assets beyond land become more important. Hence the growing importance of non-farm enterprises today than at the time of Hill's study.

Another important issue to consider is attitude to credit and debt among communities as a result of being members of various communal arrangements. A very interesting account of how credit and debt are handled among traders is provided by Clark (1994) based on her experience and interaction with the market women at Kumasi Central Market. She distinguishes among three forms of credit among traders, many of whom lived in rural communities, These were advances of goods, advances of capital and cash loans. She suggests that "each type has a characteristic form of interest, risk, term of repayment and moral connotation. Traders understand very clearly the concept of debt and the obligations specific to the kinds of credit they habitually use" (Clark 1994, p.174). For the traders, the form of credit that is most common is the advance of goods, where rural suppliers will deliver goods early in the morning to wholesalers or retailers in a large market and expect

repayment by the end of day or another acceptable short period. This was very standard practice and widely accepted as not being "shameful". The advance of capital to rural traders and farmers was also well accepted by the parties involved and here, "the trader advancing capital seemed to consider this a business investment rather than a cash loan, making her something between a partner and an employer. ...The lender splits the profit resulting from the purchase, sharing in the risk and trusting in the proved skill of the recipient" (Clark 1994, p.176). In the situations described above, the recipient was usually not considered to be a debtor until a default occurs. There are many instances when farmers receive capital advances from traders, under terms that vary.

On the other hand, cash loans are perceived to entail a loss of control over the money involved. Such loans are seldom provided by traders. They are mostly taken from moneylenders to meet emergencies. Clark (1994) suggests that borrowers take loans from outside the marketplace because of the need to conceal this from other traders at the market. This is because loans are perceived to reflect a shaky financial condition, and they consider that to be shameful. She suggests that shame over cash loans appears in family contexts. "Asantes avoid approaching relatives for loans if they can get the money from friends instead in order to save face in front of the family" (quotation from M. Owusu in Clark 1994). Cash loans do not have the respectability of advances that are related to production or economic activity over a short period. They are often contracted in secrecy. "Only traders disqualified from commercial and family assistance, presumably for misbehaviour, would resort to moneylenders" (Clark 1994, p.180). This is corroborated by survey findings made by Aryeetey and Gockel (1989) when over 90% of 1000 market women indicated that "indebtedness was a bad thing".

Cash loans can be made more respectable when they form a part of another relationship that presupposes deference and dependence. Thus a family head may be prevailed upon to provide financial support to younger members of the family, just as a wealthy farmer may support his employees. In this kind of relationship, the creditor, while not making it explicit, may be expected to write off the debt gradually over the years if the relationship proves satisfactory.

When farmers receive cash loans from traders who buy their produce, they are treated somewhat differently from cash loans from moneylenders. This is not allowed to compromise the independence of the farmer to sell his produce anywhere so long as he/she can raise the principal at the appropriate time. The cash loan is here quite distinct from a capital advance. "Traders who made them said that they find them a worthwhile use of money in the pre-harvest season, when trading itself is relatively risky and difficult. Farmers also use these loans, or the possibility of them as a risk cushion" (Clark 1994. p.181). There is usually a feeling of generosity surrounding such relationships between traders and farmers.

Despite the fact that the various financing possibilities exist, there is relatively little credit activity that takes place in rural Ghana. Little borrowing is done in view of the fact that default can be a very costly thing for the borrower. Relying on advances of goods from other traders is perceived to introduce a dependency relationship. The same applies to a receipt of

capital advances. Default on these could mean effectively being thrown out of the market as no other supplier would advance goods or capital. But in the high risk rural environment, default is always imminent and can come from several sources, highlighting further the greater pre-occupation with covariate risks. Re-negotiating such credit after default always increases the level of dependence on the lender, a fact which is worsened by the knowledge that their relationship was otherwise regarded to be both personal and business. It leads, in addition, to a loss of face, which is definitely a high price to pay after losing a means of livelihood. For persons receiving cash loans, the cost of default is even greater. If the loan is from a friend or relative, default does not only lead to a loss of face; it deprives the lender of his/her own capital and leads to stigmatisation for the borrower. If the loan came from a moneylender, default could mean loss of valuable family assets that may have been used to collateralize the loan.

Since the cost of default is perceived to be excessively high, both in social and economic terms, there is pressure on households to be self-reliant and avoid credit and therefore debt. Avoiding debt and being self-reliant are best achieved by owning and controlling all the factors of production that one will need for the production process, even if this is limited in value. Diversifying assets across different economic activities (e.g. trading and farming) is simply a way of ensuring continuing income flow in the event of a drought or brush fire.

5. CONCLUSIONS

The main conclusion to be drawn from this piece at this stage is that while rural households generally have a preference for productive assets over financial assets, the composition of these is strongly correlated with their wealth positions. The fact that the productive assets are far less liquid than the financial assets suggests that there are some costs associated with financial assets that discourage households from holding them. Also, the variability with financial wealth suggests the opportunities that are created and the greater access to institutions with wealth. For most people, there are hardly any institutions in rural Ghana that offer a positive real return on savings. Aside from the poor return, savings mobilization in rural Ghana has very little institutional organization, not even with the informal sector participation (Aryeetey 1996). Also, having savings does not necessarily generate access to a credit market in order to generate liquidity when desired. We tend to be of the view that the institutional characteristics of the financial market lead to substantial transaction costs that reduce the real return on financial assets for rural households.

Explaining why the choice of different productive assets should vary with financial wealth is more difficult. It is likely that in the absence of efficient markets in rural areas, the process of diversifying assets is made easier for wealthier households in view of the power relations that may be associated with rural social institutions developed to protect the communities against covariate risks. It is the wealthy that are likely to inherit houses and shops. It was obvious from the review of the anthropological literature that communities and families prefer to entrust their more valuable productive assets to those members who have shown a capacity to accumulate capital while being generous to the

rest of their community/family. Not having survey data on this makes it difficult to be emphatic, however.

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Appendix: Tentative Asset Choice Figures from GLSS4

Table 1: Farmland Ownership Among Total Sample, GLSS 4

Farmland Ownership	Frequency	Percent
Household Heads Owning Farm with Title Deed	219	8.9
Household Heads Owning Farm but Without title Deed	608	24.7
Household Heads Not Owning Farms	1634	66.4

Table 2: Property Rights of Farm Owning Households

Rights	Frequency	Percent
Sell	191	5.6
Use as Security	377	11.1
Both	2053	60.2
No Right	789	23.1

Table 3: Asset Types by Relative Wealth: Mean Asset Shares in the Rural Household Portfolio per Expenditure Quintile

Asset Types	Shares in Total Portfolio by Expenditure Quintiles				
	1st	2nd	3rd	4th	5th
Livestock	0.03	0.12	0.05	0.07	0.39
Farm Equipment	0.04	0.08	0.07	0.23	0.03
House	0.00	0.01	0.01	0.01	0.01
Farm	0.61	0.60	0.66	0.49	0.38
Land	0.23	0.03	0.05	0.02	0.09
NFE Assets	0.03	0.06	0.04	0.07	0.05
Net Savings	0.03	0.05	0.06	0.05	0.02
Of which: Net Loans	0.02	0.04	0.04	0.03	0.02
Of which: Savings	0.05	0.09	0.10	0.08	0.04
Consumer Durables	0.01	0.03	0.02	0.03	0.01
Net Remittances	0.01	0.02	0.04	0.03	0.03

Table 4: Asset Types by Household Location

Asset Types	Shares in Total Portfolio	
	Urban	Rural
Livestock	0.08	0.12
Farm Equipment	0.10	0.09
House	0.01	0.01
Farm	0.61	0.57
Land	0.05	0.07
NFE Assets	0.04	0.05
Net Savings	0.03	0.04
Of which: Net Loans	0.01	0.03
Of which: Savings	0.04	0.07
Consumer Durables	0.02	0.02
Net Remittances	0.04	0.03

Table 5: Asset Types by Age of Head of Household: Mean Assets Shares in the Household Portfolio

Asset Types	Shares in Total Portfolio by Age of Household Head					
	11--20	21--30	31--40	41--50	51--60	60+
Livestock	0.03	0.10	0.03	0.32	0.07	0.06
Farm Equipment	0.02	0.05	0.16	0.06	0.07	0.06
House	0.00	0.01	0.01	0.01	0.01	0.01
Farm	0.90	0.70	0.57	0.43	0.67	0.58
Land	0.00	0.00	0.11	0.03	0.02	0.12
NFE Assets	0.03	0.02	0.05	0.05	0.04	0.09
Net Savings	-0.02	0.03	0.03	0.05	0.05	0.05
Of which: Net Loans	0.03	0.03	0.03	0.03	0.04	0.03
Of which: Savings	0.01	0.07	0.06	0.08	0.09	0.09
Consumer Durables	0.01	0.02	0.02	0.03	0.03	0.02
Net Remittances	0.03	0.06	0.03	0.02	0.04	0.01

Table 6: Asset Types by Gender of Head of Household: Mean Asset Shares in the Household Portfolio

Asset Types	Shares in Total Portfolio by Gender of Head	
	Male	Female
Livestock	0.15	0.05
Farm Equipment	0.11	0.05
House	0.01	0.01
Farm	0.54	0.64
Land	0.06	0.09
NFE Assets	0.05	0.06
Net Savings	0.03	0.06
Of which: Net Loans	0.03	0.03
Of which: Savings	0.07	0.09
Consumer Durables	0.02	0.02
Net Remittances	0.03	0.03

Table 7: Asset Types by Education of Head of household: Mean Asset Shares in the Household Portfolio

Asset Types	None	Primary (1-6)	Middle (7-10)	Secondary (11-17)	University (18+)
Livestock	1.00	0.11	0.04	0.98	0.00
Farm Equipment	0.00	0.13	0.05	0.00	0.00
House	0.00	0.01	0.01	0.00	0.02
Farm	0.00	0.59	0.65	0.02	0.13
Land	0.00	0.00	0.09	0.00	0.00
NFE Assets	0.00	0.05	0.04	0.00	0.63
Net Savings	0.00	0.05	0.03	0.00	0.01
Of which: Net Loans	0.00	0.03	0.03	0.00	0.00
Of which: Savings	0.00	0.08	0.05	0.00	0.01
Consumer Durables	0.00	0.03	0.02	0.00	0.04
Net Remittances	0.00	0.03	0.08	0.00	0.17