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CONCEPTUAL FRAMEWORK FOR ASSESSING THE IMPACTS OF MICROENTERPRISE SERVICES

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EXECUTIVE SUMMARY

Between 1995 and 2001, USAID supported a number of research activities under the Assessing the Impacts of Microenterprise Services (AIMS) Project. A series of papers were published under the AIMS Project, each exploring specific conceptual issues related to assessing the impacts of microenterprise services. This paper synthesizes these studies and describes the conceptual framework they provide for impact assessment.

Toward a Household Approach to Impact Assessment

In *Assessing the Impacts of Microenterprise Interventions: A Framework for Analysis*, Sebstad et al. (1995) proposed a broadening of the lens through which the impacts of microenterprise interventions are examined. Specifically, they called for a shift of focus from the enterprise to the household as the unit of analysis. The underlying rationale for a household approach to impact assessment is that microenterprises are part of a larger portfolio of economic activities. That is, microenterprises are embedded in a dynamic household economy in which decisions are made and resources are allocated in response to a complex set of internal and external forces. Thus, any examination of the impacts of microenterprise services must look beyond individual enterprises, to the overall forces that drive decisions within the household economy.

Sebstad et al. developed a preliminary framework for impact assessment using the household approach. They identified areas where impacts could logically be expected at the household, enterprise, and individual levels. At the household level, these impact domains were income, expenditures, and assets. At the enterprise level, the domains were the resource base, production processes, management, markets, and financial performance. Individual level domains included control over resources, decision-making influence, and community participation.

Exploring the Household Economy: The AIMS Desk Studies

Building on the preliminary framework, the AIMS project undertook several studies to further explore and refine key conceptual pieces of the household economy. The studies conceptualized the role of assets, risk, program context, and intra-household dynamics in the household economy, and examined their relationship to microenterprise services.

Assets: In *Assets and the Impact of Microenterprise Finance Programs*, Barnes (1996) notes that assets are critical to household welfare because they represent a store of wealth that households can draw on in times of need, they reflect the household's living conditions, and they define the production potential of enterprises. That is, the composition of a household's asset base delimits its strategies for maximizing its present and future welfare.

Barnes identifies pathways by which microenterprise services can improve household welfare by facilitating the accumulation or maintenance of assets. First, loans can be used directly to purchase assets. When these acquired assets are used for income generation purposes, they may lead to increases in income. Second, in the case of income shocks, households that have access to credit may choose to borrow rather than to draw down their asset base. In this way, microenterprise services contribute to the stability of the household's asset base.

Risk: Two AIMS papers have focused on how risk influences household behavior and the role that microfinance plays in risk management strategies. In *Risk and the Impacts of Microenterprise Services*, Dunn, Kalaitzandonakes, and Valdivia (1996) discuss two types of strategies that households use to manage risk: 1) risk reduction strategies and 2) loss management strategies. Risk reduction strategies, which include the selection of low-risk activities, diversification of economic activities, and the development of insurance mechanisms, are adopted to reduce the household's *ex ante* exposure to risk and to reduce income variability over time. *Ex post* loss management strategies that households turn to when faced with an income shock include 1) the use of insurance and reversible mechanisms such as savings or borrowing and 2) the disposal of key productive assets. The latter type of coping strategy can have a negative effect on the household's future income potential.

In *Microfinance, Risk Management, and Poverty*, Sebstad and Cohen (2000) point out that while all households, poor and non-poor, face risk, poorer households are more vulnerable. Because they have few resources to draw on, minor events can become major economic crises. Vulnerable households are likely to select low-risk activities, which generally provide low rates of return and low levels of wealth accumulation over time. Thus, risk averse behaviors can contribute to the household's vulnerability, leading to what is sometimes referred to as the "poverty trap". Microenterprise services, Sebstad and Cohen state, can help poor households to break the cycle. To the extent that they facilitate the accumulation of assets and the diversification of income sources, microenterprise services can help households to insulate themselves from risk and cope with shocks when they occur.

Context: The environment in which microenterprises operate affects the way they do business. In *The Economic, Policy, and Regulatory Environment*, Snodgrass (1996) examines the physical, institutional, and economic factors that can influence the performance of both microenterprise programs and the enterprises they serve. Snodgrass emphasizes the formal and informal institutions that govern economic and social interaction, and how they can either support or impede microenterprise development. In environments characterized by weak institutions and sporadic enforcement of laws, corruption is often prevalent and uncertainty erodes the business environment. Informal institutions that govern social interaction can also influence microenterprise performance. Where opportunities differ by gender, class, race, ethnicity, or religion, members of socially subordinated groups may be denied licenses, credit, or other business advantages.

Individuals within Households: In *A Guide for Assessing the Impact of Microenterprise Services at the Individual Level*, Chen (1997) develops a framework for examining impacts at the individual level. Combining three existing analytic frameworks developed to measure change in women's lives, she presents a consolidated framework for tracing changes in individuals along four pathways: material, cognitive, perceptual, and relational. In the material domain, areas of change include income, resources, basic needs, and earning capacity. Cognitive change can occur in three areas: knowledge, skills, and awareness. Perceptual changes are defined as changes in self-esteem, self-confidence, or visibility and respect. Finally, relational changes refer to changes in individuals at both the intra-household and extra-household levels.

The Household Economic Portfolio Model

Building on previous work in household analysis, *Household Economic Portfolios* (Chen and Dunn 1996) develops a dynamic conceptual model of the household. This household economic portfolio (HHEP) model consists of three components: 1) the set of resources available to the household, including human, physical and financial resources; 2) the set of economic activities that household members undertake, including production, consumption, and investment activities; and 3) the circular flows between resources and activities, including the allocation of resources to activities and the economic returns from activities to resources.

The HHEP model is useful in examining the role of credit within the household economy. Credit provides an addition to the resources that are available in the current period to be allocated to any or all of the household's activities. The way that the credit is actually allocated depends on several factors, including available economic opportunities, economic and social constraints, joint and individual preferences, and intrahousehold decision making dynamics.

The HHEP model is also useful for understanding how household strategies change in response to external conditions, particularly the risk environment. Risk has an important influence on the economic decisions of households and their members. Decisions are shaped by the risk attitudes, the composition of the household economic portfolio, and the risk environment that the household faces.

The Household Economic Portfolio in Impact Evaluation

The HHEP model is well suited for impact assessment. A basic challenge in impact evaluation is building a plausible case for attribution. The HHEP model provides an internally consistent conceptual framework that can be used to link the intervention to the impact in a plausible cause-and-effect relationship. The model also addresses the issue of fungibility of credit by accounting for the flow of resources into households and between and among various production, investment, and consumption activities within households. By modeling the ways households, and the individuals within households, use microenterprise services to protect, manage, and increase their resources and activities, including their microenterprises, the model can be used to identify impact paths at the household, enterprise, and individual levels and to trace the logical pathways by which credit or other microenterprise services may lead to positive impacts. By constructing a flow path that reflects the effects of the independent variable (microenterprise services) on the dependent variable(s) in a causal system, a range of potential impacts can be hypothesized and impact variables selected at the household, enterprise, and individual levels.

Limitations of the HHEP Model and Future Challenges

There are several limitations of the framework, representing areas in which additional development is needed. First, it has been observed that some enterprises are growth-oriented, others grow little or not at all, and still others may grow to a certain point and stop. It appears that enterprise growth is not necessarily an objective for all entrepreneurs. A more detailed conceptual model is needed to explain enterprise growth and evolution in terms of household decision making and the environment in which decisions are made. Second, the usefulness of

the HHEP model in analyzing the external environment could be improved by pairing the HHEP framework with a framework that is effective in the analysis of external factors, such as the sustainable livelihoods framework. This would result in a more powerful analytical tool for planning development interventions and assessing their effectiveness. Finally, a conceptual framework is needed to model the impacts of microenterprise services at the community level and beyond, in the broader society and economy. A general equilibrium approach would be useful in evaluating any macroeconomic changes in prices and production levels, wages and employment, and interest rates and the volume of financial transactions.

I. INTRODUCTION

Between 1995 and 2001, USAID supported a number of research activities under the Assessing the Impacts of Microenterprise Services (AIMS) Project. A series of desk studies were published separately under the AIMS Project, each exploring specific conceptual issues related to assessing the impacts of microenterprise services. The purpose of this paper is to synthesize these studies and to describe the conceptual framework they provide for impact assessment.

The paper begins, in section II, with a summary of the preliminary conceptual framework that was used in designing the AIMS Project. The studies described in section III represent in-depth exploration of specific topics related to the conceptual framework: household assets, decision making under risk, the effect of the environmental context, and understanding the impacts on individuals within the household. In section IV, the preliminary framework and the in-depth studies are brought together in the development of a conceptual model of the household economic portfolio. The uses of this model in impact assessment are then described in section V. The paper closes with a discussion of some of the limitations of the current model and future challenges in the development of a conceptual framework for assessing the impacts of microenterprise services.

II. TOWARD A HOUSEHOLD APPROACH TO ASSESSING THE IMPACTS OF MICROENTERPRISE SERVICES

In *Assessing the Impacts of Microenterprise Interventions: A Framework for Analysis*, Sebstad et al. (1995) proposed a broadening of the lens through which the impacts of microenterprise interventions are examined. Specifically, they called for a shift of focus from the enterprise to the household. This section summarizes key points and concepts from this paper.

A. Rationale for Using the Household as the Unit of Analysis

The underlying rationale for a household approach to impact assessment is that microenterprises "exist as part of a larger portfolio of economic activities, and that decisions with respect to microenterprises—whether made jointly or individually vis a vis other members of the household—can be understood more clearly when considered in relation to tradeoffs within the overall household economy" (Sebstad et al. 1995, 1). In other words, microenterprises are part of a larger, dynamic household economy within which decisions are made and resources are allocated in response to a complex set of internal and external forces. Thus, any examination of the impacts of microenterprise interventions must look beyond individual enterprises, to the overall set of household resources and activities, and to the forces driving the decisions that shape the household economy.

Defining the Household

Conceptually, the household is the unit within which decisions affecting economic welfare are made—decisions about the allocation of resources for consumption, production, and asset accumulation.

Operationally, the household can be defined in terms of the group of people who normally live together and eat from the same "cooking pot."

1. Household Decision Making

Decisions relating to the allocation of resources to consumption, production, and investment activities are made at the household level. These decisions are driven by the economic goals of households and individual household members. As such, they reflect household efforts to balance short-term consumption needs with long-term investment objectives. Risk influences household decision making, and household security considerations moderate decisions governing the use of income generated from microenterprise and other activities. In summary, decisions on whether to allocate income and other resources to consumption, production, or investment activities are made in response to changing opportunities and constraints at the household level.

2. Microenterprises and Household Activities

Microenterprises play an important role in the overall production and investment strategies of households. However, many households engage in other productive activities including the cultivation of crops, the raising of livestock, and wage employment. In addition to their investments in microenterprises, households may invest in real estate, housing, education, or savings in order to achieve their long-term economic and social goals. Thus, when viewed from a household perspective, microenterprises form only part of a range of production and investment activities that can be complementary yet can also compete for resources.

Defining Microenterprises

USAID defines microenterprises as tiny, informally organized business activities (other than crop production) with ten or fewer employees (including the entrepreneur and family members) and low levels of assets and income.

Households may rely on both cash and in-kind income from microenterprises in order to meet their consumption needs. The consumption link between enterprises and households can vary according to the proportion of household income that is generated by enterprises, and the degree to which households use cash income, as opposed to in-kind income, for consumption purposes. Some households may rely largely or exclusively on cash income from microenterprises to finance consumption needs. In other cases, a portion of the goods purchased or produced by microenterprises may be consumed directly by household members, such as in food retailing or agro-processing enterprises.

3. Microenterprises and Household Resources

The size and composition of a household's resource base limits its production and investment options. The resources that households can allocate to microenterprises and other production or investment activities can be categorized as follows: financial capital, including credit, savings, and working capital; human capital, including the skills of household members and their labor; and physical capital, including land, infrastructure, and other assets. Households seek to achieve their objectives, such as maximizing returns or minimizing risks, by distributing their limited resources among various production and investment activities as efficiently as they can, given their knowledge and capabilities.

B. Preliminary Framework for Assessing the Impacts of Microenterprise Interventions

In developing a framework for assessing the impact of microenterprise interventions, Sebstad et al. (1995) identified impact "domains," or areas where impacts could logically be expected, at the household, enterprise, individual, and community levels. At the household level, three impact domains were identified: income, expenditures, and assets. At the enterprise level, the five domains were the resource base, production processes, management, markets, and financial performance. Domains at the individual level included control over resources, influence in decision making, and level of community participation. This section lists the domains specific to these three levels of the household economy and briefly summarizes the key features of each domain.

1. Household Level

- **Income.** Household income levels and diversification of income sources are critical determinants of household welfare. Income levels affect a household's consumption and investment options. Diversification of income sources is a household strategy that can increase income, lower risk by lowering dependence on a single income stream, or smooth income fluctuations over time.

- **Consumption.** Increases in expenditures on food and on debt reduction are important because of their links to improvements in household welfare. Increases in food expenditures can lead to improved nutrition for household members. Debt reduction can increase household security by allowing surplus income to be saved or invested productively.

- **Assets.** Surplus income can be converted into assets such as cash savings, real estate, jewelry, consumer durables, and equipment and machinery. Assets can serve as stores of wealth for future periods, improve quality of life, or raise enterprise productivity. Other, less tangible forms of assets are human, cultural, political, and social capital.

    - **Savings.** Because savings can help households deal with income shocks, it provides a basic indicator of household security. Savings can also serve as start-up capital for enterprises or as the basis for other productive investments.

    - **Productive investments.** Investments in businesses, crop cultivation, animal raising, rental properties, and so on can increase household income and improve household security over the short and long term.

    - **Real property.** Property can provide both shelter and opportunities for income generation. In addition, it often represents the bulk of households' material wealth.

- **Human capital.** Education, training, skills, health, and many other human qualities are referred to as human capital. Investments in these areas can result in significant welfare benefits, particularly for women and children.

2. Enterprise Level

Microenterprises are embedded in the household, and enterprise productivity depends to a large extent on the allocations of labor, capital, and other resources within the household. In turn, enterprises provide households with income that can be used for consumption or investment activities. To describe the role of enterprises within households as well as examine the impacts of microenterprise interventions on enterprises and households, Sebstad et al. (1995) suggest a focus on five "impact domains" at the enterprise level: the resource base, production processes, management, markets, and financial performance.

- **Resource base.** The enterprise resource base, which consists of financial capital, labor, assets, and inputs, defines the productivity and growth potential of enterprises. Sources of financial capital include savings, loans, and revenue. Household members generally supply labor for microenterprises, although outside labor may also be hired. Assets include fixed assets, such as land, equipment, and tools, and current assets, such as raw materials and inventory.

- **Production processes.** The equipment, tools, products, processes, materials, and skills that are employed in production processes influence the volume, mix, and quality of enterprise outputs. This ultimately affects the productivity and profitability of enterprises.

- **Management.** Management practices, such as record keeping, financial management, and inventory and stock control, can influence enterprise costs and efficiency.

- **Markets.** Access to markets is mediated by geographical, temporal, and physical factors, such as distance and transportation, as well as institutional and economic factors, such as ease of entry, level of competition, and economic climate. The accessibility and stability of markets are key determinants of enterprise success.

- **Financial Performance.** Income level and stability are primary indicators of enterprise financial performance. Profitability, which reflects the relationship between enterprises and their markets, is particularly important because profits can translate into improvements in enterprises or in household welfare.

3. Individual Level

The impacts of microenterprise interventions may be felt not only by program participants, but also by other household members. Recognizing that intrahousehold dynamics can influence the kind of impacts that individuals derive from participation in microenterprise programs, Sebstad et al. (1995) outline three domains within which individual impacts could occur: individuals'

control over their own resources, individuals' influence over household decisions, and individuals' involvement in their communities.

- **Control over own resources.** The degree to which individuals can assert control over their own labor, assets, means of production, outputs, and the proceeds of outputs is important from a human rights perspective. It is hypothesized that as individuals' economic contributions to households increase, so does their level of control over resources.

- **Leverage in household decisions.** With greater leverage in household decisions can come greater access to household resources. As with control over resources, it is thought that increases in economic contributions can translate into improvements in intrahousehold bargaining power for individuals. For owners of microenterprises, this could lead to the allocation of more resources to their enterprises. For women, who tend to channel surplus income into meeting household consumption needs, such as food, clothing, and medicine, increased decision-making leverage can affect the overall nutrition and health of household members, especially children.

- **Community participation.** Where microenterprise support programs have a social component, such as found in group lending, then increased contact with other community members can lead to increases in individuals' knowledge of their rights within society, their economic options and opportunities, and their potential for political and social activism.

C. Summary

In developing a preliminary framework for assessing the impacts of microenterprise project interventions, Sebstad et al. (1995), in essence, mapped the major components of the household economy. As they unpacked and laid out the discrete elements of impact domains at the household, enterprise, and individual levels, a complex, dynamic picture of the household economy emerged. In examining this portrait of the household, it becomes clear that any assessment of impacts of microenterprise interventions should take into account the interplay between household resources and household activities (especially enterprises), while recognizing that both intrahousehold relationships and the external environment influence the composition of activities and the distribution of resources within households.

III. EXPLORING THE HOUSEHOLD ECONOMY: THE AIMS DESK STUDIES

Building on Sebstad et al.'s preliminary framework, the AIMS project undertook several studies to further explore and refine key conceptual pieces of the household economy and the influence of credit on households and their enterprises. These desk studies conceptualize the role of assets, risk, program context, and intra-household dynamics in the household economy and examine the relationships between these components and microenterprise services. This section summarizes of the conceptual components of several of these desk studies.

A. Assets

Assets are critical to household welfare. They represent a store of wealth that households can draw on in times of need, they reflect the household's living conditions, and they define the production potential of enterprises. In short, the composition of a household's asset base delimits its strategies for maximizing its present and future welfare (Barnes 1996).

In *Assets and the Impact of Microenterprise Finance Programs*, Barnes (1996) draws a distinction between enterprise assets and assets held at the household and individual levels (assets held by individuals are usually sub-sets of overall household assets). Further, assets are classified into three categories: financial, physical, and human. Thus, this categorization scheme establishes three asset categories at each level based on the characteristics of the assets.

Financial assets at the household and individual levels generally consist of liquid or semi-liquid forms such as cash savings at home, in deposit accounts, or in rotating savings and credit associations or other such informal savings mechanism. At the enterprise level, financial assets include cash (working capital), inventory and finished goods, unused raw materials or unfinished goods, and accounts receivable.

Household and individual-level physical assets encompass a broad range of items including animals and jewelry, appliances, and houses and other real property. Enterprise-level physical assets, generally known as enterprise fixed assets, include machinery, equipment, and tools used in enterprises, as well as the premises and land that house businesses. It is important to recognize that many kinds of enterprise fixed assets can be used for both household and enterprise purposes. In addition, assets may be passed between enterprises or between individuals within the household over time.

Human assets include the skills, knowledge, and labor of household members. When these human assets are employed in household enterprises, they are considered to be enterprise-level assets. Higher levels of education, experience, and skills can translate into higher quality outputs, higher sales, and better enterprise management.

Barnes (1996) outlines the pathways by which microenterprise services, particularly loans, can improve household welfare by facilitating the accumulation or maintenance of assets. First, loans can be used directly to purchase assets. When these acquired assets are used for income generation purposes, they may lead to increases in income. Second, in the case of income shocks, households that have access to credit may choose to borrow rather than draw to down their asset base. In this way, microenterprise services contribute to the stability of the household's asset base.

B. Risk Management

Two AIMS papers have focused on how risk influences household behavior and the role that microfinance plays in risk management strategies. These papers describe how households utilize a number of strategies to reduce their vulnerability to loss and to minimize the harmful effects of losses. In *Risk and the Impacts of Microenterprise Services*, Dunn, Kalaitzandonakes, and

Valdivia (1996) discuss two types of strategies that households use to manage risk: 1) risk reduction strategies and 2) loss management strategies. In *Microfinance, Risk Management, and Poverty*, Sebstad and Cohen (2000) examine the way that household perceptions of risk can shape household economic strategies. They also explore the role that microfinance can play in households' efforts to insulate themselves against risk.

1. Risk Reduction Strategies

Risk reduction strategies, also known as income smoothing strategies, are adopted to reduce the household's *ex ante* exposure to risk and to reduce income variability over time. Major strategies of this type include the selection of low-risk activities, diversification of economic activities, and the development of insurance mechanisms.

Households can reduce their exposure to risk by selecting economic activities that have low levels of risk associated with them. However, low-risk activities are generally less profitable than high-risk ones, and the amount of income that they generate will not likely lead to significant accumulation of household wealth over time. Thus, the households that are most vulnerable tend to remain vulnerable, caught up in a cycle of poverty.

Income diversification is another important risk reduction strategy that can serve to reduce the variability of income over time. The objective of diversification is to select a range of investments and activities with incomes that are not highly correlated. Although individual income streams may be highly variable, the result of an effective diversification strategy is an overall household income that varies little over time.

A third risk reduction strategy is the development of insurance mechanisms that households can turn to when faced with a loss. These mechanisms include the accumulation of savings and semi-liquid assets, the maintenance of social networks that can be called upon in times of crisis, and the establishment of reliable access to credit.

2. Loss Management Strategies

There are two stages of *ex post* loss management strategies that households can turn to when faced with an income shock: 1) the use of insurance and reversible mechanisms and 2) the disposal of key productive assets. The first of these stages is the least damaging to households. When faced with an income shock, households can manage the loss with self-insurance assets, using savings or selling jewelry or animals to raise cash. If these types of assets are not available, households might borrow money, either from family and friends or from formal sources. If there are wage employment opportunities and households have additional labor time available, they might sell this labor. Alternatively, households may opt to reduce expenditures on certain kinds of consumption or human capital investments.

If households exhaust their stage one coping options, they may be forced to dispose of key productive assets or borrow money at high rates of interest in order to survive a crisis. Productive assets such as land or tools contribute to a household's ability to generate income. If the household is forced to liquidate this type of asset, the ability to generate income in future

periods may be reduced. Likewise, if a household borrows money at high rates of interest, it places a large claim on future income. Both of these stage two coping strategies can have a negative effect on the household's future financial situation.

3. Client Perspectives on Risk

Sebstad and Cohen (2000), in examining the way that microfinance clients manage risk, stress that the way clients perceive risk shapes their risk management behavior. While all households, poor and non-poor, face risk, households at different points on the wealth continuum perceive risks very differently. An event that results in minor discomfort for a wealthier household can be a major shock for a poorer household. For poor households with few means to draw on to cope with shocks, minor events can become major economic crises.

This perceived vulnerability could be an important limitation on the ability of poor households to lift themselves out of poverty (Dunn et al. 1996). Households who perceive themselves to be vulnerable are likely to select low-risk activities. As noted above, such activities generally provide low rates of return and low levels of wealth accumulation over time. Thus, risk averse behaviors can inhibit a household's ability to reduce vulnerability, leading to what is sometimes referred to as the "poverty trap."

4. Microfinance and Risk

Sebstad and Cohen (2000) state that while the vulnerability of poorer households make them higher credit risks, access to credit and other financial services can help those same households to reduce their levels of vulnerability. By facilitating the accumulation of assets and the diversification of income sources, financial services can help households both to insulate themselves from risk and to cope with shocks when they occur. Increasing the range of financial services available to such households by developing emergency loans and other flexible loan products, accessible savings services, and insurance products would go even further toward helping vulnerable households to deal with risk.

C. Environmental Context

The environment in which microenterprises operate affects the way they do business. Physical, institutional, and economic factors can all influence enterprise performance. In *The Economic, Policy, and Regulatory Environment*, Snodgrass (1996) examines many of these factors in relation to the performance of both microenterprise programs and the enterprises they serve.

Snodgrass discusses how institutions, or the formal and informal rules that govern economic and social interaction, can either support or impede microenterprise development. When institutions are favorable to business investment and enforcement mechanisms are consistently applied, uncertainty is reduced and the investment environment is enhanced. In developing countries, such institutions are often underdeveloped, reducing the expected return on investments and increasing risk. In environments characterized by weak institutions and sporadic enforcement of laws, corruption is often prevalent. This exacerbates uncertainty and erodes the business environment.

Informal institutions that govern social interaction can also influence microenterprise performance. Where opportunities differ by gender, class, race, ethnicity, or religion, the business prospects for members of socially subordinated groups may be negatively affected. They may be denied licenses, credit, or other business advantages, or their potential range of customers may be limited by their social status.

Snodgrass notes that government policies and regulations can hinder microenterprise development. Policies that govern markets, such as labor laws, tariff and exchange rates, and price controls, affect the price of inputs and can have negative impacts on profitability. Compliance with regulations that govern access, such as zoning and licensing, can be prohibitively expensive and time consuming for small businesses. This can force businesses to operate illegally, increasing their vulnerability. Where regulations are overly time-consuming and complex, they can be a major impediment to microenterprise development.

D. Individuals within Households

In *A Guide for Assessing the Impact of Microenterprise Services at the Individual Level*, Chen (1997) asserts that different household members may feel the impacts of microfinance programs differentially. Therefore, impacts at the individual level should be examined along with those at the household and enterprise levels. Combining three existing analytic frameworks developed to measure change in women's lives, she presents a consolidated framework for tracing changes in individuals along four pathways: material, cognitive, perceptual, and relational.

In the material domain, areas of change include income, resources, basic needs, and earning capacity. Impacts relating to income can include changes in income levels and income security. For resources, changes relate to the level of access to, control over, and ownership of assets and income. Changes in basic needs are those that relate to the quality of health care, childcare, nutrition, education, housing, water supply, sanitation, and energy sources that individuals have available to them. Finally, changes in earning capacity, as reflected in employment opportunities and the ability to take advantage of those opportunities, are included in the material domain.

Cognitive change can occur in three areas: knowledge, skills, and awareness. Changes in literacy and numeracy are important knowledge-related impact areas. Skill areas in which change can occur include managerial skills, entrepreneurial skills, and technical skills. Changes in awareness of common problems facing the poor, employment options, legal rights, and politics are also important components of cognitive change.

Perceptual changes are defined as changes in self-esteem, self-confidence, or visibility and respect. Self-esteem refers to an individual's perception of his or her own individuality, interest, or value. Self-confidence is reflected in an individual's perception of his or her own ability and capacities. Finally, visibility and respect reflects the recognition and respect others place on an individual's value and contribution.

Relational changes refer to changes in individuals at both the intra-household and extra-household levels. This domain includes changes in the dynamics of intrahousehold decision

making, in bargaining power, in the level of participation in extra-household groups such as local government and political groups, and in levels of self-reliance.

IV. THE HOUSEHOLD ECONOMIC PORTFOLIO MODEL

A. Theoretical Base

Over the last several decades, there have been three important developments in the analysis of the household. These developments, which represent a gradual coming together of anthropologists, economists, and feminist scholars from both disciplines, signal a major shift in the way households are approached in social science research.

First, there has been a movement away from household models based on the concepts of sharing and cooperation and toward those that recognize that a household is "a locus of competing interests, rights, obligations and resources, where household members are often involved in bargaining, negotiation, and possibly even conflict" (Moore 1994, 87) and allow examination of that negotiation, bargaining, and conflict. A second development has been an increasing emphasis on the household as permeable and embedded within wider structures rather than as a bounded unit. In this approach, household production, consumption, and investment decisions are influenced not only by internal forces, but also by external cultural, economic, and political forces (Guyer and Peters 1987). A third important development has been the recognition that households vary tremendously in composition and structure, and that this variation is evident both between and within societies and over time.

At the same time, economic models of household decision making have evolved. First, the previously separate production and consumption models were combined to create a single model of the household as both producer and consumer. A second important development was an effort to disaggregate the household model to account for the effect of individual preferences, resources, and bargaining power in intrahousehold decision making. A third major development in economic models of the household came from the research on risk management, which revealed much about the role risk plays in influencing household strategies. This research examined the ways that risk can influence what economic activities households select, whether and to what degree households diversify those activities, how they manage their assets, and even the social relationships that they establish.

B. Conceptual Model

Drawing on key concepts from the anthropological, economic, and feminist literature on the household, Chen and Dunn (1996) developed a dynamic conceptual model of the household. This household economic portfolio (HHEP) model is illustrated in figure 1 and consists of three components:

- Resources: the set of resources available to the household, including human, physical and financial resources;

- Activities: the set of economic activities that household members undertake, including production, consumption, and investment activities; and

- Flows: the circular flows between resources and activities, including the allocation of resources to activities and the economic returns from activities to resources.

Household resources are the set of human, physical, and financial resources over which that household has control. They include the labor power and skills of household members; tangible assets such as land, equipment, machinery, and inventory; and cash and other forms of liquid savings. These resources may be held jointly or may be held separately by individual household members. In addition to owned resources, some resources might be borrowed from other households or be made available though other social relationships or networks.

Household activities include all of the consumption, production, and investment activities in which household members participate. The common element connecting these diverse activities are that they all draw on the resource base of the household. Consumption activities satisfy the material wants and needs of households through the provision of food, clothing, health care, ceremonies, and amusement. Although such activities draw down the household's resource base, they also maintain the health and quality of the household's human resources.

Production activities can be classified into three groups: 1) income generating activities, 2) household maintenance activities, and 3) wage and outside work. Income generating activities consist of all of the productive activities that generate a marketable good or service, including microenterprise and agricultural production. Household maintenance activities, which include food preparation, clothes washing, and childcare, are distinguished from income generating activities because they provide goods or services that are strictly for household consumption. Wage and outside work is the selling of household labor in exchange for cash.

Investment activities are activities that use current household resources in order to enhance the household resource base in future periods and create the potential for future increases in income. The products of investment activities are assets. These may include real property, such as land and housing; stores of wealth, such as livestock or jewelry; financial assets, such as cash savings; productive assets, such as equipment and machinery; or improvements in human capital through education and training.

The links between household resources and household activities are illustrated by the circular flows depicted in figure 1. The top arrow represents the resource allocation decisions in which the household's human, physical, and financial resources are allocated to the various household activities. It is important to recognize that both resources and activities may be controlled either jointly or individually. Therefore, joint and individual decision making processes govern the allocation of resources to activities. In addition, a single type of resource, such as labor, may be shared across multiple activities, and each activity generally requires more than one type of resource.

The bottom arrow of the model traces the flow of income and other additions to resources that are the outcome (or products) of household activities. Resources generated by the household's

activities are combined with previously unused resources to create the household resource base for use in future periods. Thus, the HHEP model represents the household as a circular flow between the resource base of the household and the range of activities in which the household is engaged.

C. Credit in the HHEP

The HHEP model can be used to understand the role of credit within the household economy. As illustrated in figure 1, credit provides an addition to the resources that are available in the current period to be allocated to household activities. Credit is fungible within the household economy, meaning that it may be allocated to any or all of the household's activities. The actual allocation of credit depends on several factors, including the household's economic opportunities at the time, its economic and social constraints, joint and individual preferences, and the intrahousehold decision making structure.

If the credit is used in production or investment activities, it may increase the size of the resource flow back into the household. This increased resource flow can both augment the resource base available to support activities in future periods and enhance the household's repayment capacity. If the credit were allocated to consumption activities, it would not be expected to increase resource flows or to increase the repayment capacity of the household. Of course, credit that is received in a previous period places a claim on the household's resources, so that some of the household's resources will flow out of the household economy in the form of debt repayment to the lender.

D. Risk in the HHEP

Risk has an important influence on the economic decisions of households and their members. The conceptual model of the household economic portfolio can be used to help clarify the links between risk, the decisions made by the household, and the outcomes of those decisions. These decisions are shaped by the risk attitudes of the members of the household, the composition of the household economic portfolio, and the risk environment that the household faces.

A dynamic interpretation of the conceptual model helps to outline the role of risk in household decision making. At the beginning of each period, the household makes the key economic decisions of 1) selecting the set of production, consumption and investment activities to undertake during the period and 2) allocating the set of household resources to the selected activities. At the end of each period, the resources generated by the activities flow back to the set of household resources in the form of income and assets. The resulting household resource base, which may be different in size and composition from what it was in the previous period, becomes the basis for activities to be undertaken in the next period.

When households employ risk reduction and loss management strategies, it affects the composition of the household economic portfolio. Take, for example, two of the important risk reduction strategies discussed previously: diversification and the building of self-insurance mechanisms. With self-insurance, a household will seek to build up those liquid and semi-liquid resources that can be called upon to deal with a sudden loss. If a loss is actually experienced,

then the household will turn to those self-insurance mechanisms and, if these stage one resources are insufficient, may then attempt to liquidate productive assets. This will affect both the size and the composition of the household's resource base. Similarly, the strategy of diversification affects the composition of the household's activities, as households attempt to diversify in order to spread risk over several activities and ensure a steady stream of income. In all of these cases, risk has an effect on the resource allocation decisions of the household.

Risk also affects the outcome of the household's resource allocation decisions. In other words, the household can select the set of activities that it will undertake in each period, but the outcome (or return) from those activities depends on stochastic forces external to the household. The same microenterprise, using the same type and levels of resources, may have different levels of returns in different periods, depending on market conditions. Similarly, households may seek to adjust their HHEP to changes in the risk environment. For example, if a weather event threatens to cause crop failure, a household with an enterprise that processes those crops may transfer resources to another enterprise that would not be affected by a crop failure. On the other hand, if the household were not able to shift resources to another enterprise, that same crop failure could lead to a smaller income flow at the end of the period.

In summary, all of the components of the household economic portfolio are at least partially determined by the risk environment in which the household operates. This includes the composition of the household's resource base, the resource allocation decisions made by the household, the set of activities undertaken by the household, and the economic returns to those activities.

V. USE OF THE HOUSEHOLD ECONOMIC PORTFOLIO MODEL IN IMPACT EVALUATION

A. Addressing the Issue of Fungibility

The household economic portfolio model is useful in addressing the issue of the fungibility of credit. Credit is fungible in the sense that it can be allocated by the household to any of the economic activities in the HHEP. Because of this fungibility of credit, it is inappropriate for an impact evaluation to be based on a conceptual model that includes only a single microenterprise, while ignoring the household economic portfolio in which it is embedded.

When an impact evaluation is focused on a single microenterprise, there is an implicit assumption that all of the credit has been allocated to that enterprise and that only impacts on the target microenterprise are relevant. On the other hand, when the fungibility of credit is accepted and incorporated into a household-level conceptual model, then the evaluation can attempt to measure a full range of impacts without making any prior assumptions about how credit is allocated within each household. In addition, the HHEP acknowledges that enterprise profits are also "fungible" in the sense that they may be used for non-enterprise expenditures. Therefore, even if the credit is allocated to an enterprise, the impacts of the credit may still be evident in changes at the household level.

The HHEP addresses the issue of fungibility by accounting for the flow of resources into households and between and among various production, investment, and consumption activities within households. It provides the basis for understanding how changes in one activity may come at the expense of or complementary to changes in another. In addition, the model provides theoretical justification for examining changes in both income flows and resource stocks at the overall household level and linking these household-level changes to microenterprise credit.

B. Establishing a Plausible Case for Attribution

Another important conceptual challenge in evaluating the impact of microenterprise services is the problem of establishing a plausible case for attribution. The attribution problem is a general one, affecting impact evaluation in all the social sciences. Basically, the problem arises from two causes. First, the statistical methods used to measure impacts can establish statistical correlation, but they cannot be used to prove the existence of a cause-and-effect relationship. Second, controlled experiments in which all factors except the treatment (intervention) are held constant are very difficult to conduct in the social sciences. The result is that it can never be proven incontrovertibly that the treatment led to the impact. Instead, the best that can be done in social science impact evaluation is to establish a plausible case for attribution.

One of the ways of building a plausible case for attribution is by having an internally consistent conceptual model that links the intervention to the impact in a plausible cause-and-effect relationship. The HHEP model provides just such a conceptual framework, and it can be used to model the ways that households, and the individuals within households, use microenterprise services to protect, manage, and increase their resources and activities, including their microenterprises.

The HHEP can be used to identify impact paths at the household, enterprise, and individual levels. When credit enters the household, it immediately increases the resource base available for allocation to household activities. Using the HHEP model, the logical pathways by which credit or other microenterprise services may lead to positive impacts can be traced. The identification of these plausible impact paths within the HHEP provides the basis for generating a set of hypotheses to be tested in the impact evaluation.

C. Generating Impact Hypotheses

The framework described in Sebstad et al. (1995) includes a discussion of the possible impact paths by which project interventions may lead to positive changes at the household, enterprise, individual, and community levels. The framework identifies domains of impact at each level. These domains are broad categories of impact variables such as changes in household income or enterprise resources. In each domain, the framework lists specific “markers of change” by which movement along the impact path within each of these domains can be measured.

Building on Sebstad et al.’s framework, the household economic portfolio model can be used to trace causal pathways between microenterprise services and a range of potential impacts at the enterprise, household, and individual levels. By providing the conceptual linkages between microenterprise services and changes at these three levels, the HHEP provides a logical

framework for generating impact hypotheses and selecting impact variables. In some cases, the causal pathways imply a direct impact, but in many other cases, the impact pathways are indirect.

The next three sections list impact hypotheses that can be generated by the HHEP at the enterprise, household, and individual levels. At the enterprise level, changes in enterprise growth or stability can be measured in terms of changes in productive and human assets; changes in the management of the asset base; and changes in enterprise income. At the household level, changes in economic welfare can be measured in terms of changes in physical, financial, and human assets; changes in the size and composition of income; changes in selected expenditure levels; and changes in the ability to cope with shocks. At the individual level, the path toward greater empowerment can be measured by changes in control over resources and changes in self-esteem.

1. Impacts at the Enterprise Level

Microenterprise services, particularly credit, are hypothesized to have positive impacts on enterprise revenue, fixed assets, employment, and transaction relationships. The causal paths of these impacts are outlined below.

- *An increase in microenterprise revenue.* Credit is hypothesized to have a positive impact on enterprise income because it expands the current resource base that can be allocated to microenterprise activities. The household can use the expanded resource base to purchase inventory, fixed assets, or business services and use these inputs to increase the profits of the enterprise.

- *An increase in enterprise fixed assets, especially among repeat borrowers.* Positive impacts on enterprise fixed assets are hypothesized to occur in two ways: 1) through the direct investment of loan funds in the purchase of assets and 2) indirectly through the reinvestment of increased revenues from credit-supported enterprises.

- *An increase in the paid and unpaid employment generated by the enterprise.* Impacts on employment occur indirectly through increased levels of inventory and fixed assets that lead to higher production capacity and higher sales volume. This expansion of production and sales creates the need for more labor inputs.

- *Improvements in the transaction relationships of the enterprise.* Credit increases the resource base available to support the microenterprise, allowing the entrepreneur to negotiate more favorable terms in transactions. For example, by increasing the level of available working capital, credit allows entrepreneurs to negotiate more favorable input purchasing arrangements.

2. Impacts at the Household Level

Microenterprise services are hypothesized to have positive impacts on several household-level variables: household income, income diversification, household assets, education, nutrition, and coping strategies. Many of these impacts are hypothesized to be the indirect results of increases

in household income generated by microenterprises. However, microfinance services, such as credit and savings, may also have direct impacts on variables such as income diversification, asset accumulation, education expenditures, food expenditures, and coping strategies.

- *An increase in the level of household income.* The increase in overall household income occurs indirectly, as microenterprise services lead to increases in enterprise income. This increased enterprise income flows back into the household as higher returns to household labor and management.

- *Greater diversification in the sources of household income.* Microenterprise services can have a direct impact on diversification by facilitating the start-up of a new business. Indirect impacts may come through the investment of increased enterprise revenues into new economic activities. It is also possible that microenterprise services may lead to specialization, which is the opposite of diversification. If the microenterprise services result in enhanced growth and profitability of the enterprise, then the household may prefer to abandon other activities in order to concentrate on a single, more profitable enterprise.

- *An increase in household assets, including improvements in housing, increases in major household appliances, and increases in microenterprise fixed assets.* As with diversification, microenterprise services may have both direct and indirect effects on the accumulation of assets. Microfinance products may be invested directly in household assets, or some of the increased income from enterprises that receive microenterprise services may be used to accumulate additional assets.

- *An increase in expenditures on children's education.* By increasing household income flows, microenterprise services may have an indirect effect on education expenditures. It is also possible that microfinance products will be used directly to meet the expenses of children's education.

- *An increase in expenditures on food, especially among the very poor.* Much as with education expenditures, increased spending on food may be facilitated directly through the use of microfinance products or indirectly through the use of increased enterprise income.

- *An increase in the household's effectiveness in coping with shocks.* Credit can have important impacts on households' *ex ante* and *ex post* abilities to cope with shocks. A household may use increased income flows to invest in self-insurance assets or to diversify its income base. Alternatively, microfinance products may be used as part of an *ex-post* crisis management strategy to smooth consumption after a crisis.

3. Impacts at the Individual Level

The household economic portfolio model allows for a variety of joint and individual arrangements in the organization of resources, activities, and decision making within households. In addition to changes at the household or enterprise level, which should not be assumed to affect all household members equally, the direct program participation of the client may result in specific impacts at the individual level: control over resources and income, savings, self-esteem

and respect from others, and future orientation. Microenterprise services may have both direct and indirect effects on these individual-level variables. The causal models for several individual-level impacts are block-recursive in the sense that there are bidirectional relationships between savings and control over resources and between self-esteem and control over resources.

- *Increases in the client's control over resources and income within the household economic portfolio.* Control over resources may include control over the allocation of financial, physical, or human resources; control over the use of the microenterprise loan or additional savings or interest generated by the program; or control over the management of microenterprises or other income generating activities within the household. As clients use microenterprise services to improve their enterprises, and as their economic contributions to the household increase, their influence over resource-related decisions may also increase.

- *An increased incidence of personal savings.* The incidence of personal savings is both an indicator of the client's level of control over resources and of the overall wealth and stability of the household economy. According to this hypothesis, program-related increases in income flows from the client's enterprise combine with enhanced individual control over resources to lead to an increased incidence of personal savings.

- *Increased self-esteem and respect from others.* As the microenterprise services allow clients to increase their contributions to the material welfare of the household, become better managers of their microenterprises, increase their influence over resource-related decision making, and increase their savings, then clients' self-esteem may also increase as a result of these positive changes. Clients also might perceive that they receive increased respect from other adults in the household.

- *A better position from which to deal with the future through more proactive behavior and increased confidence.* As microenterprise services enhance the client's ability to formulate and effectively implement proactive financial and economic plans for the future, then the client's perception of the future becomes more positive and the client has a greater sense of security and confidence. Microenterprise services may also have additional, indirect positive effects on the client's future orientation through increases in savings, control over resources, and self-esteem.

As summarized previously from Chen (1997), pathways through which impacts at the individual level can be tracked can be classified as material, cognitive, perceptual, and relational. Changes in the level of control that clients have over income, savings, and other and resources represent both material and relational changes. Changes in self-esteem and self-confidence are considered perceptual changes. Changes in the way that clients view the future combine elements of all of the pathways of change.

VI. LIMITATIONS OF THE HOUSEHOLD ECONOMIC PORTFOLIO MODEL AND FUTURE CHALLENGES

The previous sections have described how the conceptual framework used in the AIMS Project was developed over time and as the result of several separate studies. The conceptual framework of the household economy has proven useful in the design of a range of impact assessments. This final section discusses some of the limitations of the framework and suggests three specific areas in which additional development is needed.

A. Developing Models of Microenterprise Development

Those who work with microenterprises on the ground commonly observe that some enterprises are growth-oriented, others grow little or not at all, and still others may grow to a certain point and stop. Microenterprise evolution and growth appears to be a complex process that is influenced by economic, social, and institutional factors. It is apparent that microenterprise growth is not necessarily an overriding objective for all entrepreneurs. In a step toward understanding why some enterprises grow and others do not, Sebstad et al. (1995) outlined three stages of microenterprise development and related them to household goals. These three stages of microenterprise development lie along a continuum from viability to stability to growth.

The household economic portfolio model also relates enterprise growth to household goals. It represents the microenterprise as embedded in the household economy, drawing from the set of household resources and competing for those resources with other microenterprises and economic activities within the same household. This framework clearly indicates that resource allocations and decisions about the microenterprise are made in conjunction with decisions about the household's other consumption, production, and investment activities.

However, a more detailed conceptual model of enterprise growth and evolution is still needed. It should continue to be linked to the household economy and should be able to predict the circumstances under which some entrepreneurs will seek to expand their microenterprises. This information would be useful in program design and in the development of more responsive products for these growing enterprises. On the other hand, the most useful product innovations for households with microenterprises that are not growth-oriented might not be related to microenterprises at all. Instead, what may be needed for these households are financial and other services targeted more directly at household financial management. The conceptual model should explain and predict microenterprise evolution in terms of the households' objectives and constraints and in terms of the environment in which the enterprise operates.

B. Analyzing the Influence of External Factors

The strength of the household economic portfolio model lies in its application as a useful tool for understanding household decision making and mapping household responses to ever-changing internal and external forces. It is not, however, as useful for analysis of the external environment. Households constantly modify their strategies and behavior in response to the broad range of organizational, institutional, and economic factors that they face. To reach a

deeper understanding of household behavior, it is necessary to examine these external factors more closely.

While the HHEP does not deal explicitly with the external factors that shape households' opportunities and constraints, other conceptual frameworks have attempted to analyze the broader environment as it relates to the household economy. Notable among these is the *sustainable livelihoods framework*. At the household level, the HHEP and the sustainable livelihoods frameworks are similar. Much like the HHEP framework, the sustainable livelihoods framework examines how households use the resources at their disposal to support their "livelihood portfolios," or the combination of activities that they pursue.

Both frameworks place importance on understanding the household economy, but they approach the household from different perspectives. The HHEP focuses primarily on the inner workings of households, viewing the external world in terms of the strategies that households adopt in response to external conditions. The sustainable livelihoods approach, on the other hand, does not place the same emphasis on the inner dynamics of the household. Instead, it examines the social, political, economic, and environmental context within which households make their decisions. Particular attention is given to the institutional processes that shape the way households allocate their "livelihood resources" to the activities that make up their "livelihood strategies" (Scoones 1998).

The differences in the way the two frameworks approach the household imply strong complementarities. These frameworks share two key objectives: 1) to understand household behavior in relation to external factors, including (or especially) development interventions, and 2) to gauge what impact these external factors have on household welfare. The strength of the inside-out HHEP approach is its dynamic modeling of household behavior; while the strength of outside-in sustainable livelihoods approach is that it facilitates a detailed and comprehensive assessment of the contextual factors that mediate the household's ability to achieve its objectives. Combining these two frameworks could strengthen both, resulting in a more powerful analytical tool for planning development interventions and assessing their effectiveness.

C. Impacts Beyond the Household

Finally, a conceptual framework is needed to model the impacts of microenterprise services at the community level and beyond, in the broader society and economy. There seems to be an untested assumption that the wider economic impacts will be largely negative due to the "crowding out" effects on enterprises that do not receive credit or other program services. In other words, unable to compete with their neighbors who receive microenterprise services, the non-participants are assumed to experience reduced sales and lower levels of employment.

However, there is also a basis in economic theory for arguing that the wider economic impacts of microfinance will be positive. As "multiplier" effects, the clients' increased incomes and the increased levels of employment of non-household members may have positive ripple effects that spread through the local goods and employment markets to provide welfare improvements for non-clients. What is needed is an integrated conceptual framework that allows for both of these

possibilities and that can be used to gather empirical evidence to determine under what circumstances either outcome might occur.

There is already a conceptual model for investigating the impact of microenterprise services at the macroeconomic level. Using general equilibrium analysis, it would be possible to examine the market-level changes in prices and production levels (in goods markets), on wages and employment (in labor markets), and on interest rates and the volume of financial transactions (in financial markets). This conceptual framework needs to be empirically applied in order to assess the macroeconomic impacts of microenterprise services.

D. Summary and Conclusion

The conceptual framework for evaluating the impacts of microenterprise services under the AIMS Project uses the household as the unit of analysis and views the microenterprise as embedded in the household economy. This model of the household economy as a portfolio of resources and activities is useful for understanding household financial management and resource allocation decisions. The framework has several advantages. In particular, it provides a conceptual basis for impact assessment by addressing the issue of fungibility, helping to establish a plausible case for attribution, and generating impact hypotheses at three levels. However, additional work is needed in extending the framework to better analyze microenterprise growth and evolution, the influence of external factors, and the impacts of microenterprise services beyond the household.

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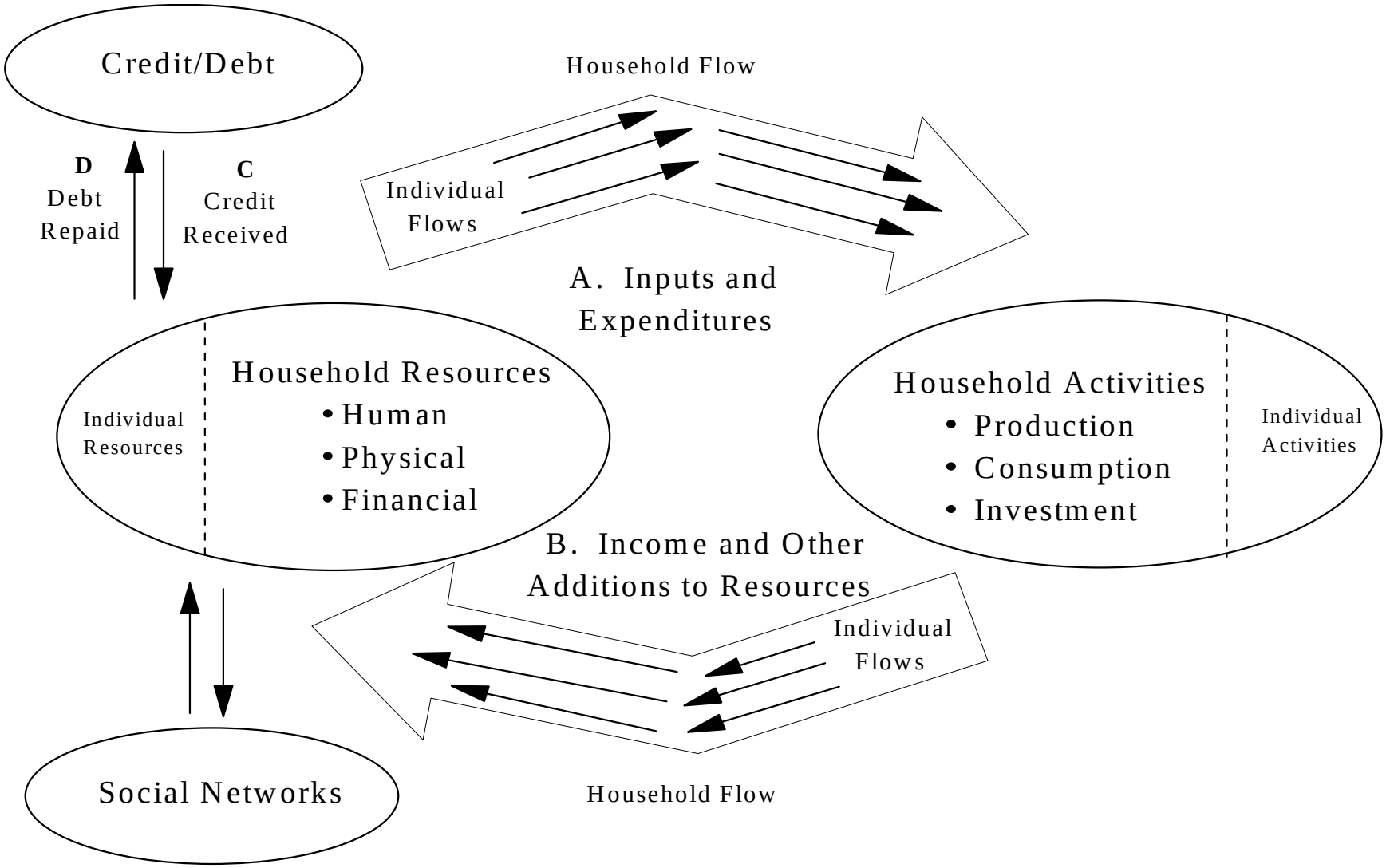

Figure 1: Conceptual Model of the Household Economic Portfolio