SOLIDARITY: UTILITY CONSIDERATIONS IN AGRICULTURAL LAND LEASE IN THE
REPUBLIC OF MOLDOVA

by

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AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

Department of Agricultural Economics
College of Agriculture

KANSAS STATE UNIVERSITY
Manhattan, Kansas

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Abstract

A solidarity nuanced economy has the potential to be an antagonist to inequality and poverty. Solidaric features in an economy can serve development initiatives in that solidarity fosters cooperation and promotes self-help. Exchange is one of the most ubiquitous of all human behaviors. A principle of exchange is that both parties, either individuals or groups, must derive greater benefit than sacrifice for the exchange to occur. Exchange enhances an economic agent’s utility. Solidarity informs utility; thus, solidarity impacts exchange. Solidarity can be tersely defined as “social cooperation.” Utility maximization unwrought is based on the premise of self-regarding behavior. Solidarity, on the other hand, is other-regarding behavior. These two elements in exchange need not be in discord; quite the opposite, they act in concord.

Solidarity is articulated as being distinct from large group collective action. Collective action can incorporate features of revenge and punishment. Solidarity, as a specialized form of collective action, is strictly associated with cooperation and charity. Solidarity is a process of other-regarding mutual exchange. The inescapability of living out solidarity is described and the case is presented that solidarity is of individual initiative. Because incentives (dis-incentives) are felt at the individual level, it is here that other-regarding behavior (i.e., solidarity) is incubated.

The Inequality Predicament suggests that economic inequality is the most pressing issue hindering development (United Nations, 2005). The inequality phenomenon calls for more attention to the role of economic solidarity. The inequality predicament may not be so much a matter of wealth inequality as it is inequality of access to resources and markets. Solidarity is an implement of engagement in gaining access to markets.

Few studies in collective action literature are addressing how rural households are affected by changes in property rights and how land policies impact incentives to engage in solidarity. Land rights can only be properly understood in the context of their development. The uniqueness of land rights is informed by past and present culture. This dissertation presents a conceptual framework for examining the relationship between solidarity (i.e., cooperation) and access to land markets. The focus of this study is on the interplay between property rights and solidaric utility decisions of individuals or small groups. The arena of research is land fragmentation and agricultural development in the Republic of Moldova.
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T – as always and as ever shall be.
Dedication

To Nicolai Bardan of Minzhir, Republic of Moldova. Nicolai sold one of his kidneys to buy a 0.5 hectare farm. With this land resource he is able to partially support his family.
Preface

“But whoever has this world’s goods, and sees his brother in need, and shuts up his heart from him, how does the love of God abide in him? My little children, let us not love in word or in tongue, but in deed and in truth” (1 John 3:17). Ego defessus unlearned, quisnam postulo ignoro adeo; quod perturbo philologus, quisnam teneo is iam. Ego sum an indignus vernula.
CHAPTER 1 - Solidarity

Introduction

The first International Human Solidarity Day (IHSD) was observed on December 20, 2006. The United Nations General Assembly proclaimed an IHSD to accentuate the common goals and challenges of global development. The global communities’ shared concerns and aspirations regarding a most ambitious development agenda, that is, the Millennium Development Goals, is itself a postulate of solidarity.

The global development agenda confronts many hurdles. One hurdle is the persistence of economic inequalities at both the global and domestic strata. The Inequality Predicament suggests that economic inequality is the most pressing issue hindering development (United Nations, 2005). The inequality phenomenon calls for more attention to the role of economic solidarity.

Economic solidarity rests upon the presupposition of self-organized relationships of individual cooperation. The manifestation of solidarity is in group activity to address an economic challenge. Solidarity was indicative in Egyptian agrarian society via mutual efforts in planting and harvesting while contending with seasonal Nile flooding (Gide, 1987). Today, economic behavior exhibiting solidarity can be witnessed in agricultural cooperatives and associations, mutual societies, and foundations organized to help group members achieve their socio-economic goals. Solidaric features in an economy can serve development initiatives in that solidarity fosters cooperation and promotes self-help. A solidarity nuanced economy has the potential to be an antagonist to inequality and poverty.
The junction of inequality and poverty can be clearly seen in rural households.Usufruct rights over natural resources are key assets to the livelihoods of agrarian households. Secure usufruct rights provide households with income and investment incentives for technology adoption and resource improvements. With the importance of access to natural resources in reducing poverty, it is important to examine the role of usufruct rights and solidarity in generating income.

The transition economies of Central and Eastern Europe (CEE) offer a unique opportunity to investigate the concept of solidarity and the role of property rights in gaining access to input and output markets. Though the issue of access to resources and markets has long been recognized as critical in contributing to poverty reduction, it has only been within the last three decades that the interplay between collective action and access to resources has been widely studied. The context of the interplay has typically been in view of its role in natural resource management (Ostrom, 1990; Baland and Platteau, 1996; Meinzen-Dick and Di Gregorio 2004) and its role in the provision of public goods (Cornes and Sandler, 1986; McCarthy, 2004). Few scholars have studied the relationship between inequality and collective action. Bardhan et al. (2002) and Kanbur and Sandler (1999) are notable exceptions. Their studies, in general, focus on the question of what impact do inequalities, typically wealth inequality, have on an agent’s participation in collective action ventures. There is a growing literature examining the specific junction of property rights and collective action in generating wealth (Meinzen-Dick and Di Gregorio, 2004). Moreover, very few studies are available that investigate the role of property rights in transition countries at the household level (Vranken and Swinnen, 2006). There is a growing recognition of social capital in economic literature. Social capital is seen as social networks that create the cooperative environment necessary for poor households to
overcome barriers to resource access. However, there is gap in collective action literature addressing how rural households are affected by changes in property rights and how land policies impact incentives to engage in solidarity. This dissertation presents a conceptual framework for examining the relationship between solidarity (i.e., cooperation) and access to land markets. The focus of this study is on the interplay between property rights and solidaric utility decisions of individuals or small groups. The arena of research is land fragmentation in the Republic of Moldova.

The groundwork for this conceptual study is laid with a general definition of economic solidarity. Solidarity is articulated as being distinct from large group collective action. Next a brief historic illustration of solidarity is presented. From the platform of the illustration, a problem statement is rendered regarding land fragmentation. Chapter Two presents solidarity from a phenomenological perspective. The inescapability of living out solidarity is described. The case is presented that solidarity is of individual initiative. Because incentives (disincentives) are felt at the individual level, it is here that other-regarding behavior (i.e., solidarity) is incubated. Chapter Three briefly outlines the development and use of collective action in economic literature from the New Institutional school of thought. Collective action can incorporate features of revenge and punishment. Solidarity, as a specialized form of collective action, is strictly associated with cooperation and charity. Solidarity is a process of other-regarding mutual exchange. Chapter Four follows with a brief review of the distribution neutrality theorem in collective action. Inequality problems can not be solved by wealth redistribution efforts. The inequality predicament may not be so much a matter of wealth inequality as it is inequality of access to resources and markets. Chapter Five recognizes that usufruct rights are a complex issue. Land rights can only be properly understood in the context
of their development. The uniqueness of land rights is informed by past and present culture. Chapter Five presents a conceptual framework on property and the development of property rights from a historical context. This chapter offers the Latin underpinnings to current land policy issues in Moldova. Chapter Six develops a theoretical utility function incorporating concern for others. Utility is where solidarity is operational. Chapter Seven specifically looks at agricultural development through a solidarity lens. Solidarity is an implement of engagement in gaining access to markets.

**General Definition of Solidarity**

In the field of economics the term “solidarity” often invokes confusion. There appears to be no clear-cut definition of solidarity. The game experiments regarding solidarity conducted by Selten and Ockenfels (1998) reveal that players can exhibit solidarity in the willingness to help others who are in a much worse position than they themselves. This general definition helps explain the actions of people who are willing to assist victims of natural disaster; such as, tsunamis or tornados. Others scholars, notably Olson (1968), Ostrom (1990), Isaac, et al. (1994), and Ledyard (1995) suggest solidarity (specifically collective action) is revealed and measured by group cooperation in the provision of public goods. For the purpose of this dissertation, solidarity is defined as the voluntary formation of individuals into a cooperative unit for the purpose of resource allocation that contributes toward a desired outcome.

Solidarity is not to be confused with collectivism. Collectivism is present when production and distribution decisions are under central control (coercion). Collectivism occurs when small holdings are collected into a single unit (loss of individual identity) for joint operation under hierarchical control (a central planner). Solidarity is not collectivism in that a voluntary cooperative unit member may act independently or through the group. Voluntary
group membership and cooperation are key points under solidarity. Individual identity is preserved in solidarity.

Furthermore, there is differentia between solidarity and collective action. Solidarity is similar to yet different than collective action. The difference can be likened to the characteristic traits distinguishing one species from another species of the same genus. Collective action is essentially action taken by a group to achieve commonwealth interests. Most notably this occurs with regard to common pool resources or public goods. Collective action is orchestrated group action. Collective action involves managed group intervention in the market on the perceived grounds of improving economic efficiency or to mitigate economic externalities (Ostrom, 1990). Examples of collective action are; 1) citizens making provision for a standing military force, 2) an organized labor strike, or 3) controlling use rights to grazing land. Group members act through the group. Group size, group composition, and community norms influence the successful achievement of the collective action engaged (Olson, 1968; Ostrom, 1990). An additional note on collective action is an underling notion of an inherent class struggle (Kirzner, 1989). Collective action has been called upon to assist the under-privileged, under-served, and marginalized peoples of the world in gaining social capital (D’Silva, 2003). From this class struggle perspective, human design is needed to bring about desirable economic outcomes.

Solidarity is distinct from collective action in doctrine. One distinct trait of the species “solidarity” is an adherence to the tradition of spontaneous order. Spontaneous order upholds the development of social outcomes and institutions as certainly a result of human group action, but not executed by any pre-conditioned human design (Hayek, 1967). Solidarity maintains that orderly social outcomes result not from pre-deliberated human design but rather from the spontaneous interaction between individuals in a cooperative unit. Results from spontaneous
order are expectations. Expectations further lead to forms or frames of conduct and, consequently, institutions are developed to articulate the rules of conduct (Hayek, 1973). This order can be seen in the historical development of property definitions and rights.

A second distinct trait of solidarity is attributing moral virtue to the distribution results of unfettered competitive markets. The free market system generates the maximum total satisfaction for society as a whole (Mises, 1949). In a free system, there is no conflict between the interests of producer and consumer (Mises, 1949). Solidarity, as a voluntary cooperative unit for the purpose of resource allocation, is best achieved in a decentralized market system.

An Illustration

The Foundation of Economic Education (FEE) has a short presentation about the Puritans at Plymouth Bay Colony and their experiment with collectivism. The presentation aptly illustrates the difference between collectivism and solidarity.

At first, the Pilgrims decided to forsake the institution of property rights, which they declared to be the basis of greed and selfishness (instigators of class struggle). Instead, they committed to live the Platonic ideal of collectivism; all property would be in common, all labor done for the common, and all the fruits of labor equally shared among the colonists. Governor Bradford, in his diary, describes the experiment of collectivism.

“The experience that was had in this common course and condition, tried sundry years and that amongst godly and sober men, may well evince the vanity of that conceit of Plato’s and other ancients applauded by some of later times; that the taking away of property and bringing in community into a commonwealth would make them happy and flourishing; as if they were wiser than God. For this community was found to breed

1 FEE is an educational foundation with the mission to promote the first principles of freedom: the sanctity of private property, individual liberty, the rule of law, the free market, and the moral superiority of individual choice and responsibility over coercion. For more information, see www.fee.org.
much confusion and discontent and retard much employment that would have been to their benefit and comfort. For the young men, that were most able and fit for labor and service, did repine that they should spend their time and strength to work for other men’s wives and children without any recompense. The strong...had no more in division of victuals and clothes than he that was weak and not able to do a quarter the other could; this was thought injustice. The aged and graver men to be ranked and equalized in labors everything else, thought it some indignity and disrespect unto them. And for men’s wives to be commanded to do service for other men, as dressing their meat, washing their cloths, etc., they deemed it a kind of slavery, neither could many husbands well brook it. Upon the point all being to have alike, and all to do alike, they thought themselves in the like condition, and one as good as another; and so, if it did not cut off those relations that God hath set amongst men, yet it did at least much diminish and take off the mutual respects that should be preserved amongst them...Let none object this is men’s corruption, and nothing to the course itself. I answer, seeing all men have this corruption in them, God in His wisdom saw another course fitter for them."

Poverty was the rule of the day. And what was this wiser course more fitting for the community to follow? Each family was given property rights of their own and given control over the means of production and the distribution thereof. Self-interested industry and trade ensued. Group contribution resulted in neighbor helping neighbor in community activities such as the slaughter and dressing of meat, cultivation and harvest and processing of foodstuffs, and in providing public goods. Bradford writes,

“They had very good success, for it made all hands very industrious, so as much more corn was planted than otherwise would have been. The women now went willingly into the field, and took their little ones with them to set corn; which before would allege weakness and inability; whom to have compelled would have been thought great tyranny and oppression...By this time harvest was come, and instead of famine, now God gave

2 The full presentation may be found in the FEE thanksgiving newsletter at www.fee.org/thanksgiving.
them plenty, and the faces of things were changed, to the rejoicing of the hearts of many, for which they blessed God.”

It was through the instrument of solidarity and not collectivism that brought the colonists such bounty that in November 1623 they declared a feast of thanksgiving. Solidarity is concinnity. Collectivism is coercion. Collectivism fails – solidarity prevails.

**Problem Statement**

Not all economies transitioning from collectivism to a free market structure have seen the rapid gains as did the Puritans at Plymouth Bay Colony. Several former Soviet republics are still struggling to increase productivity and efficiency and decrease unemployment and poverty. For example, Moldova made a transition from a soviet-collective system to a free market system in 1991, yet, despite nearly two decades of reform, is suffering with sluggish industrial and agricultural output, high unemployment, and approximately seventy five percent (75%) of the population living under the poverty line (United Nations, 2007). Moldova had a higher gross domestic product (GDP) per capita in 1990 (US$ 1,776) than in 2007 (US$ 1,156) (United Nations, 2007).

What factors have inhibited Moldova from reaping the full benefits of a Plymouth Colony experience? An initial response is that the Puritans and Moldovans have confronted a different set of constraints and institutions. The principle difference can be centered on access issues to input and output markets. Current institutions in Moldova have discouraged free and spontaneous solidarity activity. For example, the process of agrarian reform and land restitution in Moldova agriculture has resulted in severe fragmentation of land ownership. Land

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3 Ibid.
fragmentation has three dimensions. One dimension is the multiplicity of undivided shares. This type of fragmentation refers to the number of share holders of a single title. A second dimension is non-contiguous land parcels held by a single farm household. This type of fragmentation hampers farm efficiency due to cost associated with movement between plots. A third dimension of land fragmentation is small plot size and unique plot geometry. This increases the difficulty of access to plots, creates land cultivation difficulty, and increases production costs. Land fragmentation is considered restrictive to efficient land use and farm household income (Deininger, 2003; Vranken and Swinnen, 2006).

Land fragmentation issues may be overcome by implementing policies that provide incentives for land consolidation and support land market transactions. The main hypothesis of this dissertation is that a solidarity nuanced economy would reduce inequality constraints regarding market access and reduce the pressure of poverty in Moldova.

**Methodology**

A word is in order regarding the tenor of this dissertation. Agricultural economic programs in the United States are viewed as producers of applied analysis. Applied mathematics reigns in the training of agricultural economists. This empirical approach is valuable in modeling human behavior and problem solving. However, the positivist tradition can be cataphatic in nature if pushed to the extreme. The prevailing cataphatic philosophy is that nothing is knowable if not observable and quantifiable. There is a different road less traveled in economic inquiry; the apophatic route. The apophatic philosophy is that the essence of something is not necessarily reducible to quantifiable models. There are aspects of human behavior too complex to quantify; moral values for instance. The apophatic way is a deductive approach to understanding human behavior. The cataphaticist would state that to know
something I must understand and be able to explain. The apophaticist would state that I can
know something even though I do not fully understand nor can fully explain. For example, can
one know God’s love to mankind without being able to fully understand God’s love? The
cataphatic and apophatic approaches do not require divorce; they can be balanced in economic
research. For example, a scholar can relax the neoclassical assumption of the exogeneity of rules
and norms while retaining a utility maximization direction in modeling choice. Since collective
action and solidarity are group endeavors, group norms and rules heavily influence, or even
dominate, economic choice (Sugden, 1986; Selten and Ockenfels, 1998; Ostrom, 1990).
Neoclassical optimizing models are not always appropriate when group norms and rules are
arguments in the decision function.

One method for investigating cooperation in an economy is to review the networks of
relations in which individuals are embedded. From a sociological point of view, the network of
relations assists in resource access. The structure of the network and the position of the player
within the structure appropriates some level of “capital” for the player. For example, in a
network structure of respect based on social standing the elder or queen is able to excite action
whereas a laymen or commoner is impotent. Who one is within the structure carries weight.
This is the concept of social capital.

Social capital has gained attention in economic literature as a possible bridge between
traditional market approaches and an understanding of social dynamics in economic activity.
The concept of social capital is not without critics. Some weaknesses of resource allocation
mechanisms based on social capital include redistribution effects versus economic growth,
exclusivity, and economic inequality maintained in network structures. Solow (1995) maintains
that if social capital is a potent force in economic development then it would be reflected in the
growth of total factor productivity. The economics of social capital are more acutely witnessed in redistribution efforts than in economic growth (Solow, 1999). Social networks are exclusive and not inclusive. The anonymity of the competitive market is distorted in social capital networks. A player’s standing in the network (generally based on wealth) prohibits anonymity; “in allocation mechanisms governed by [social] networks…’names’ matter” (Dasgupta, 2005:18). Credit analysis and employment opportunities are examples of social standing impacting access to resources. Social capital empirical work has shown that inequalities in social and economic standing are guarded by the local and macro elite (McKean, 1992). The distribution of the benefits of cooperation is captured by wealthier households (McKean, 1992). In other words, social networks can be exploitive. Some social networks can prevent markets from functioning well (Arnott and Stiglitz, 1991). Social networks can be a hindrance to economic development. The clarity of social capital as an explanation for cooperation and the positive claims for communitarian institutions is murky. Though the concept of social capital is useful in theory regarding human value relations, it will not be invoked in this dissertation.

This dissertation incorporates features of historical experience and an Austrian economic sociological perspective in investigating solidarity. A historical perspective provides insight on the operation of institutional arrangements. The lessons from historical experience are instructive to policy makers. Granted, not all historical experience is relevant to current policy problems, but contextual awareness is an important contribution to economic science. McCloskey (1976) has stated that a historical perspective makes for better economic policy and better economists. An Austrian approach couples nicely with the study of solidarity; especially in the environment of a transitioning economy. The emphasis on institutional engineering in transition
economy research is suspect from an Austrian perspective. Austrians argue that a better focus of study is towards the analysis of the set of formal and informal constraints which affect individual economic choice. The important questions do not revolve around whether transition is successful or how long it takes, but on how have the incentive structures changed. This does not suggest that the institutional view from a New Institutional school of thought is unattractive. Institutional change leads to new rules and norms. New Institutional Economics offer a valuable contribution toward the understanding of such changes. An Austrian approach requires solidarity to be appraised under the criteria of acquisition of knowledge, individual responsibility and self help, and free access to the market place.
CHAPTER 2 - Solidarity and Phenomenology

Solidarity is harmonious cooperation. Articulating the phenomena of cooperation is a teleological difficulty. Cooperation is ever-present in human economic behavior. A branch of science that can offer a description of solidarity is phenomenology. The intent of this chapter is to provide insight into the uniqueness of solidarity as a contemporaneous individual initiative.

An Epistemological Obstacle

There are various scholarly approaches to the topic of solidarity; e.g., social, political, economic, and philosophical. Each discipline hosts a conceptual framework regarding the identity, environment, and mapping of solidaric actions. In cross-discipline conversations about solidarity there exists a risk (or opportunity) of confronting epistemological obstacles. An epistemological obstacle, as submitted by Bachelard, can stifle the migration toward knowledge discovery (Walter, 1995). In other words, scholars can use the same lingua franca, but have a separate lingo based on discipline specific constructs. That is to say, scholars often talk “past each other.”

Collective Consciousness

The word “conscious” is derived from the Latin *cum scire*, meaning, “together knowing.” It can be said that if two people are privy to some knowledge together then they are conscious of it with one another (Lomond, 1998). This is the case of a husband and wife having intimate knowledge of one another or of a clergyman having insight as a result of hearing a private confession. Consciousness therefore is embedded with the *nous* of a shared awareness. The
consummated instance of consciousness is a collective together knowing. Collective consciousness is ubiquitous in society. A collective consciousness is apparent in such groups as families, tribes, ethnics, clubs, and churches. As a participant and functioning member of a social group, one finds that living out a collective consciousness is inescapable.

The inescapability of a collective conscious is due to the phenomenology of the social experience. How individuals experience themselves in relation to others influences the account of shared collectivity. A social existence is required, albeit introverted, extroverted, or ethereal, for a collective conscious to subsist. The proposition set forth is that there are three co-joint features for a collective conscious to be attainable. These features are: 1) plurality (i.e., two or more conscious agents), 2) intentionality (i.e., volition), and 3) sodality (i.e., union of interests and responsibilities in a group; fellowship). Each of these features is discussed below.

**Plurality**

For a collective conscious to exist there must be individual thought. If the thoughts of each were the thoughts of all, then the reductionist theory of the “one mind group” would prevail, and the sodal would morph to a modal. As Husserl indicates, “if that which is embedded in an other’s own essence were directly accessible, then it would merely be an experience of one’s own essence, and ultimately the other and one’s self would be the same person” (Husserl, 1960:109). Other phenomenologists point out, upon Husserl’s theme, that if all subjects share in the same flow of consciousness, then there is only one flow of consciousness, and consequently only one self (Zahavi, 2004). Thus, a collective conscious would not be possible for the collective would be nothing more than the subjective. A supported separability, meaning not directly accessible to each other, is required between the conscious of one self and another in order to host a collective form of consciousness. In other words, there must be two or more
conscious agents to form a collective conscious. Plurality is a first-order condition for a collective conscious.

**Intentionality**

The intentionality feature of a collective conscious is concerned with the subject of the individual as a member of a group. A collective conscious is essentially a second-order condition on the interaction of individual conscious agents as a group. This perspective can be quite divergent with the standard phenomenological approach to what constitutes and manifests a collective conscious. Generally, it is the group as a whole that is the subject of review for a state of consciousness. The nuance here is in the difference between intentionality as *volition* and intentionality as *system outworking*. Here also is a distinction between collective action (group focuses) and solidarity (individual focused).

For further explanation of intentionality as system outworking, one may confer Jones (2001). Jones metaphorically uses a cluster of cells to demonstrate how cooperation between cell entities emerges into an intentional system. Jones maintains that cells do not consciously coordinate their activity but, nonetheless, produce an intentional system whereby the capacity to survive increases. To flourish, cells must cooperate to meet their selfish individual goals. “There is no reason to believe that cooperating clusters of people can’t come to be organized in a similar manner” (Jones, 2001:246).

Alas, there is reason to believe contrary to Jones’ statement. Cells do not have mental properties. A cell (or neuron) neither possesses a conscious nor can achieve a state of consciousness. Jones relies on evolution to erroneously purport that a group of cells possess mental capabilities. He then makes a leap in comparing his cell analogy to human intentional agents. It takes a group of humans to possess the mental capacity to flourish. No individual
person, just as no individual cell, can survive without a group forming into an intentional system (Jones, 2001). Jones’ view is suggestive of the communitarian perspective (e.g., it takes a village to raise a child). In other words, it is the group as a whole that possesses the state of consciousness, not the individual members of the group.

Emile Durkheim was a proponent of the intentionality as system outworking view. Durkheim implied that a collective consciousness is attainable only as a state of the entire group. In his mind, this was called a social fact (Durkheim, 1951). Social facts are expressed via a group and are distinct from the psychological or individual mind. Durkheim further implies that social facts are discovered by the statistics that lend comment on the central tendency features of a group. For example, the mean wealth of a group would be considered a social fact. The mean then expresses a state of the group’s consciousness. There may be no individual member of the group who holds the average wealth, thus it is only the group that reflects social facts. Durkheim’s principal point is that there are states of the collective mind in which individuals lack awareness of the content of the collective consciousness. One can summarize Durkheim’s and Jones’ viewpoint on the collective conscious by saying that the collective intentions of the group are not derived from the individual intentions of the group members.

Intentionality as system outworking is not a flawless perspective. Individuals do matter. More specifically, the individual’s conscious awareness of volition matters. To say that any spontaneous self-organizing group exhibits a conscious is not sufficient evidence to suggest a collective conscious. Water molecules do not form a collective conscious in the ditch in order to make it to the ocean. Consciousness is a phenomenon that requires mental properties and the ability to “know together.” To “know together” presupposes the existence of experience and awareness.
**Sodality**

What values, either intrinsic or instrumental values, hold individuals together in socio-economic institutions? Max Weber and Karl Marx are considered conflict theorists. They considered conflict between individuals and across groups as the essential working of society. Conflict according to Weber and Marx is what regulated opposing interests and maintained social order. Emile Durkheim and Georg Simmel, on the other hand, believed that harmony, rather than conflict, defined human actions in society. They contend that humans act in such a way as to facilitate cohesion and harmony. The sodal (peaceful fellowship or harmony) is the natural condition of society pursued by social agents.

Traditional categories of sodality are mechanical and organic. Mechanical sodality refers to group integration based on shared beliefs and sentiments. Organic sodality refers to group integration as a result of mutual dependence and interdependence. These two forms of sodality infer an organized institutional argument. Mechanical sodality is exemplified in institutionalized nationalism, totalitarianism, and syndicalism. Likewise, organic sodality is institutionalized in the form of unions and collectives. In my opinion the fallacy of Communitarianism is the idea of institutionalizing solidarity in connection with community design. It is the unique individual conscience that informs and forms community. The conscience self is the agent of engagement in living harmony with others. Self volition determines concern for the other. It is through the individual conscience of sodality that other-regarding behavior is incubated.

Sodality emanating with the individual versus the community demands a more personal category of solidarity than can be provided by mechanical or organic solidarity. The concept of reflexive solidarity is appropriate. Reflexive solidarity is deliberate socio-economic engagement motivated by self. This type of solidarity is based on individual introspection. Reflexive
solidarity is a plausible operational form of interactive sodality between individuals and groups of individuals. Solidarity is an individual initiative.
CHAPTER 3 - Solidarity and Economic Behavior

New Institutional Economics

A “new” institutional economics pre-supposes an “old” institutional economics. Thorstein Veblen, John R. Commons, and Wesley C. Mitchell pioneered the early frontiers of institutional economics. Veblen’s article, “Why is Economics not an Evolutionary Science”, published in 1898, launched what is considered the first institutional approach to economic behavior (Seckler, 1975). In true Veblen-ese, this article posited that classical economics was crippled because of its methodological presuppositions. Veblen asserted that the state of economic science, at the time, was too teleological. Veblen described economic behavior in terms of discernible collective action. From a Darwinian weltanschauung, Veblen suggested that economic agents are caught in an institutional web dictated by culture and exogenous variables such as famine, disease, and technological change (Veblen, 1898).

J. R. Commons contributed to modern institutionalism in that he advanced the proposition that the transfer of ownership (i.e., transactions) can be regarded as the focal point of economic outcomes. Commons testified that the conflict of interests among economic agents is the driver of transactions (Commons, 1934). Because of the ubiquitous nature of human conflict of interests, Commons put forth that a social order and a mutual dependence of people must be, and can only be, maintained via collective action. Indeed, to Commons, the principle contribution of institutional economics was the collective action control of individual transactions (Commons, 1934). An institution then acts as a collective action in control of individual actions (Commons, 1934).
Essentially, early institutional economists argued that institutions played a role in influencing economic decision making. This school of thought was initially viewed as heretical in that it was a deviation from the dominant theory. Critics of institutional economics pointed out that institutional economic research operated outside the classical theoretical framework and offered little, if any, analytical rigor from which solid policy decisions could be derived. Joseph Schumpeter was critical of institutional economics in that he considered institutionalism not a genuine school centered on one doctrine, but rather merely a subject matter within economics.

The concept of a “new” institutional economics essentially emerged with Ronald Coase’s 1937 article “The Nature of the Firm.” Other pioneering work in this area has been conducted by Armen Alchian, Douglas North, and Oliver Williamson. Williamson receives the credit of coining the phrase “new institutional economics” in his 1975 publication of *Markets and Hierarchies: Analysis and Antitrust Implications*. Coase launched a new direction in institutional economics in his consideration of transaction costs. Transaction costs, which are determined by institutions, are the key to economic performance according to institutional economists. The creation of institutions and their day-to-day operations requires the input of resources. These resources serve as transactions inputs in the production, processing, and distribution activities in which all economic operations take place. Other critical factors that follow transaction costs are the structures of contract relationships and the assignment of property rights. Thus, legal, political, and social institutions influence an economy’s performance.

Another directional departure from old institutional economics is that new institutional economics analyzes institutions within the framework of neo-classical theory. Obviously, in new institutional economics, the neo-classical assumption of zero transaction costs, along with perfect information and rationality, must be relaxed. However, the stalwart assumption of agents acting
in self-interest to maximize an objective function is maintained. Institutions and institutional arrangements enter as a constraint in a new institutional economic construction.

It is helpful to add an operational definition for institutions and organizations. Institutions are a set of formal and informal rules of conduct that govern relationships between individuals and groups. Formal rules of conduct incorporate such instruments as laws, regulations, contracts, markets, and political systems. Informal rules of conduct incorporate such instruments as norms, morals, customs, values, and sociological pressures. Institutions influence individual and group behavior and thus, ultimately, economic outcomes. Organizations are the forms and structures of roles for operational entities. For example, households, firms, and cooperatives are institutions that are also organizations. The law code and money are institutions that are not organizations.

Before suggesting a furcation of new institutional economics, it is worth noting that new institutional economics supports inquiry at both the macro-level and micro-level. Inquiry at the macro-level focuses on the institutional *environment* affecting organizational forms, behaviors, and transactions. Political, social, and legal instruments that establish the systems for production, exchange, and distribution are considered at the macro-level. Inquiry at the micro-level focuses on the institutional *arrangements* of managing transactions. The governance systems of markets, sub-markets (e.g., informal markets), and contracting are considered at the micro-level.

The deductive methods of economists have added greater understanding on the influent and effluent aspects of three fundamental institutions; namely, the firm, the market, and the authority (i.e., state). New institutional economics insights have been informative across disciplines; so much so that new institutional economics is now considered to be a
multidisciplinary field of study. The various streams of new institutional economics

multidisciplinary research include:

1. Transaction Cost Theory – The exchange process generates transaction costs; such as, search and information costs, bargaining and closure costs, and policing and enforcement costs. Transaction cost inquiry investigates the effect of such costs on the formation, execution, and closure of contracts. Please confer the various works of Alchian, Demsetz, Coase, North, and Williamson.


4. New Economic History – This work looks at the historical concepts of transaction costs, property rights, and contracts. The principle aim of such work is to propagate a consistent theory of the institutional structure and operation of society. Please confer the various works of North, Fogel, Rutherford, and Thomas.

5. Political Economy Theory – Research efforts in this area include the theory of the state, government organizations and policy perfecting, international organizations and political institutional arrangements. Please confer Jevons, Ridardo, and Fehr.

6. Public Choice Theory – The interest in this area is the study of how society chooses the rules under which a institutional systems operate (a.k.a. ordnungspolitik). Please confer Buchanan, Wagner, Olson, Tullock, and Böhm.
7. Collective Action Theory – This field of review is concerned with group solutions for the management of common pool resources and the provision of public goods. Group features such as size, composition, and purpose affect cooperation in solutions. Please confer Olson, Ostrom, Hardin, and Sandler.

8. Overlapping Subfields – There are various topic areas of research in new institutional economics that can be classified as subfields of the above principle approaches. Serious consideration in specialized areas include:
   a. Law and Economics
   b. Social Economics and Social Capital
   c. Neo-Austrian (or rather revisited-Austrian) Economics.

The springboard to current economic research on the phenomena of collective action was Mancur Olson’s *The Logic of Collective Action* (a.k.a. *Logic*) (Olson, 1965). Olson’s *Logic* has had an acute impact in the field of economics and has had “spillover effects” in other disciplines making inquiry into group behavior; such as, sociology, anthropology, law, and political science. Olson’s prevailing precept, which was counter to established economic literature, was that an individual’s pursuit of self-interest (primarily their own well-being) might not enhance the aggregate benefit of a group action; actually, it could lead to an inferior collective action outcome.

The general themes of *Logic* deal with 1) free-riders, 2) group size, 3) exploitation, 4) asymmetry, and 5) selective incentive by-products. The impact of Logic was not from the originality of collective action ideology, but rather for the advent of a general behavioral equilibrium suggesting reasons for a group’s lack of success.\(^4\) Essentially Olson applied

\(^4\) Olson did not spend much time on offering conjectures for why groups might succeed. He seemed to focus on group failures.
hypotheses to the collective action phenomena in a manner that penetrated the frontiers of group behavior research.

Others prior to Olson had ruminated on the allocation and costs of public goods and the free-rider problem. Adam Smith in Book V (Of the Revenue of the Sovereign or Commonwealth) of the Wealth of Nations mentions the concept of governments raising revenue via user fees on public goods and the need to provide some goods via general revenue funds. Though unbeknownst to Smith, he was essentially thinking on the current day topics of excludable and non-excludable goods. The focused study on collective action per se excited the interests of David Hume and John Stuart Mill. These men offered insight on collective action problems from a philosophical standpoint with no extrapolation toward establishing a general theory of groups. Other notable contributing scholars include:

1. Wicksell (Olson, 1965) – explored the free-rider problem in relation to the case of public contributions to government brokered public services.  

2. Samuelson (1958) – explored the problem of how to value public goods. The optimal conditions for the provision of public goods were of interest to Samuelson.

3. Musgrave (1959) – purported that the allocation issues of public goods could be dealt with through voting mechanisms.

4. Buchanan (1965) – allowed market forces to allocate certain types of collective goods known as club goods; i.e., goods which excluded non-member usage.

5. Baumol (1969) – investigated incentives to contribute to a group regardless of the contribution of other group members.

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5 See Olson, Logic 1965 pp.99-100.
Cooperation and Charity

Solidarity is the formation of individuals into a cooperative unit for the purpose of resource allocation that contributes toward a desired outcome. Solidarity is witnessed within a group where all members are expected to contribute to the cause; the desired outcome derives greater utility than could be obtained in the absence of contribution. Within group solidarity is considered cooperation. One can see cooperation in the historic record of the warfare between Amalek and Israel at Rephiddim. Here is where Aaron and Hur supported Moses’ hands during the course of battle. A labor union strike and farmers’ joint pest management are also examples of cooperation solidarity.

Solidarity is also witnessed across groups. For example, group Alpha (donor group) is willing to contribute to group Beta (recipient group) to increase Beta’s welfare. Across group solidarity is considered charity (donation). Aid from the local church given to support missionary effort is an example of charity solidarity.

Solidarity is not static however. It is dynamic. As such, solidarity is a process. It is a process of mutual exchange. Macneil (1986), from his anthropology studies, suggests that a tension is maintained between an individual and the collective where mutual exchange increases individual utility and social cooperation. The process of mutual exchange is driven by self-interest.

People engage in purposeful behavior. Human behavior is launched off the springboard of self-interest. Self-interested behavior is binomial in that it is either selfish or selfless. The

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6 Holy Bible. Exodus 17:8-16, especially 11-12.
7 The word “charity”, derived from the Greek charis, is used here to denote the act by which graciousness is expressed. The Greek word charis can be translated as grace or gift.
8 It is important to note that as a process, solidarity is susceptible to being managed. Solidarity can be managed through decision making and policy actions.
avenue separating selfish from selfless behavior is called ethics. An ethical action is the responsive behavior to the question “what ought I do.” Thus, you can see that it rests on the individual to make a decision on which side of the avenue he will travel; i.e., what ethic will be applied. To inhibit unfettered and self-made morals, a standard must be in place. That is, a dividing line must be in the median of the avenue to act as a guide in discerning if one is acting selfless or selfish. The dividing line is that of the virtues. It is this dividing line which indicates whether a responsive behavior to the question “what ought I do” is virtue or vice. A person reveals their preferences via self-interested behavior.

Outcomes occur after an economic agent has taken action. When agents are free to choose their action, they consider, with some weighted uncertainty, the outcomes through the lens of their worldview. There is a level of subjective probability linking actions considered in a choice set to a set of outcomes. The agent’s values, predicated by their worldview, help determine the desirability of outcomes. Individuals reference their values in making choices they believe will yield desirable outcomes (Etzioni, 1988). However, Stigler and Becker (1977) assert that values must be treated as exogenous in rational choice theory. In their paper, De Gustibus Non Est Disputandum, they state that there is no disputing about tastes in that for a model to be tractable all tastes are homogeneous. The calculus of choice theory may be well served by establishing homogenous tastes, but the assertion is not valid. A fundamental principle of economics is that people have different values and value things differently. People do differ from each other in evaluating the world. One mechanism for incorporating values in decision theory is to translate value into a utility for the choice maker. This mechanism has historically followed the genre of egoistic utility. Other scholars, such as Arrow (1963) and Frank (1987), have shown that decisions based solely on egoistic utility are hard to sustain. Self-interested
agents include concern for others in their own utility function (Sugden, 1986; Lindenberg, 1986; Selten and Ockenfels, 1998). Etzioni (1988) pushes the envelope further in the argument that moral concern toward others trumps egoistic decisions.
CHAPTER 4 - Solidarity and Wealth Inequality

What is the complexion of the relationship between wealth inequality and solidarity? Both microeconomic and macroeconomic research suggest a negative relationship between wealth inequality and the proclivity of economic agents to form collective action groups, to participate in collective action groups, and in the provision of public goods. At the micro-level, Alesina and La Ferrara (2000) argue that disparity in income equality impacts participation in social groups. Participation in social groups is less likely in situations where there is a large variance in income levels. Dayton-Johnson (2000) shows that inequality in land ownership has a negative effect on the level of contribution toward irrigation water allocation and canal maintenance. At the macro-level, Banerjee and Duflo (2003) and Banerjee, Gertler, and Ghatak (2002) indicate that both regional economic growth and efficiency are hampered by wealth inequality. This is revealed in that land holdings inequality is negatively related to collective action participation in agrarian groups. For other literature, dealing with the concept of fairness and inequality, consult Bandiera, Barankay, and Rasul (2005); Heinrich, et al. (2001); and Fehr and Schmidt (2001).

Discerning the relationship between inequality and collective action can contribute to an understanding on the pattern of economic development. For example, it has been shown that reducing inequality through reform of land use rights can return productivity gains (Banerjee, et al 2002).

Inequality in economic endowments has been a concern of mankind for ages unto ages. The institutional economics literature has been particularly keen in exploring economic inequality amongst groups. Predicted by Olson’s seminal work, the public economics literature
has queried inequality among group players, particularly in the context of pure public goods. Pure public goods exist where individual contributions are perfect substitutes in the production of the public good. Additionally, all members receive the same use benefit from the public good irrespective of their level of contribution. Thus, as shown by Warr (1983), in a Nash equilibrium environment, wealth inequality within a group of contributors does not impact the provision of the public good. If a redistribution of wealth occurs within a group, then each individual group member adjusts his personal level of contribution to the public good by the same amount as his wealth change. For example, if resources were shifted away from the wealthiest group member to the least wealthy group member, then each would adjust their contribution in accordance to the amount of wealth lost or gained. In other words, with respect to joint surplus within group contributions are independent of the distribution of wealth. This is the distribution neutrality theorem prevalent in collective action literature.

More recent research has shown that distribution neutrality is dependent on certain features imbedded in the problem framework. For example, Bergstrom, Blume, and Varian (1986) find dependence on the absence of corner solutions. Cornes and Sandler (1996) suggest distribution neutrality is dependent on agents’ contributions being perfect substitutes in producing a public good. Additionally, Cornes and Sandler (1996) indicate the benefit received by any one group agent depends only on the total level of all contributions.

Research efforts supplied by Bardhan, Ghatak, and Karaivanov (2006) show that greater equality among those who contribute towards the collective good (within group) will increase the value of total contributions. Therefore, a more equitable wealth distribution among contributors will increase the level of equilibrium of the collective input. Also, any re-distribution of wealth from non-contributors to contributors that does not affect the set of contributors will increase
total contributions. In other words, any inequality in the distribution of wealth among group members reduces total contributions toward the collective good. Bardhan, et al. (2006) further indicate that greater equality of wealth will increase joint profits. As a result, perfect equality of wealth among contributing group members maximizes their joint surplus. Naidu (2009) reports that moderate levels of wealth inequality are beneficial in collective action groups for inciting contribution as long as benefits accrued to the group are homogenously shared.

Subcutaneous to these findings is the idea of fairness within each group member’s choice of contribution. Individual voluntary contribution to collective action is partially based on the notion of “fair share” (Ledyard, 1995). When wealth is equally (or nearly equally) distributed within a group, then, with equal means, all contribute toward the collective good. When there is a large variance in wealth held by group members, the free riding and overuse of commons becomes a dilemma (Cornes and Sandler, 1996). There is a range, albeit small, over which wealth inequality does not negatively impact contribution toward collective action. Likewise, beyond inflection, wealth inequality does matter in the sense of gaining access to resources and in group participation (Fehr and Gachter, 2000; Bardhan, et al. 2006).

Consider a collective action problem in agriculture. Producers utilize a private input (e.g., land, labor) and a collective input (e.g., irrigation water) to produce a private good (e.g., crop). The inputs, private and collective, are complements in the production function. Both negative and positive externalities may be exhibited; e.g., irrigation water consumed by one producer reduces available water to other producers generating a negative externality and conservation efforts toward public goods generate a positive externality.

There are $n > 1$ members in the collective action group. Each member makes use of two inputs, $p_i$ and $c_i$, to produce a final good. The private input is $p_i$ and the collective input is $c_i$. 
The given endowment, \( w_i \), is the wealth of member \( i \) of the private input. Each member executes action \( x_i \) in regards to either usage of or contribution to the collective input. Consider \( X = \sum_{i=1}^{n} x_i \) as the aggregate actions of the group. Likewise, consider \( W = \sum_{i=1}^{n} w_i \) as the aggregate wealth of the group. The profit function of each member is \( \pi_i = f(w_i, c_i) - x_i \). The aggregate of individual actions to the collective input is \( c_i = ax_i + \beta X \). It can be seen that \( x_i \) is a private input that is combined with other agents’ private inputs to form a collective input. There is a return to the private input when \( \alpha > 0 \). Each individual agent will derive a benefit which is dependent on their level of \( x_i \). The production function follows a Cobb-Douglas form; that is, \( f(w, c) = w^a c^b \) with \( a + b \leq 1 \).

Statements can be made regarding the parameters within the collective input equation. Following the description presented by Cornes and Sandler (1996), the parameter assumptions are \( \alpha \geq 0 \) and \( \alpha + \beta n > 0 \). The situation of the equilibrium can be seen through the \( \alpha \) and \( \beta \) parameter values. When \( \alpha = 0 \) and \( \beta > 0 \), a pure public good scenario exists. When \( \beta = 0 \), a pure private good scenario exists. When \( \alpha > 0 \) and \( \beta > 0 \), the scenario of an impure public good exists. The typical problem of the commons can be seen when \( \alpha > 0 \) and \( \beta < 0 \).

Consider the scenario of \( \alpha = 0 \) and \( \beta > 0 \) (i.e., pure public good) where market conditions exist for wealth. Standard protocol calls for agent \( i \) to maximize \( \pi \) with \( x_i \leq w_i \). Therefore, 
\[
\max \pi = f(w_i, c_i) - x_i - (w - p)r.
\]
This can be written as \( \max w^a (\alpha x + \beta X)^b - x - (w - p)r \). The first order conditions are
\[
f'_w = aw^{a-1} (\alpha x + \beta X)^b - r = 0
\]
\[
f'_x = bw^a (\alpha x + \beta X)^{b-1} - 1 = 0
\]
Solving for \( w \) yields, \( w_i = \frac{aX}{br} \). In aggregate, the market clearing interest rate is derived from \( \sum_{i=1}^{n} w_i = W \), where \( W \) is the level of total wealth. Consequently, \( r = \frac{aXn}{\beta W} \) or

\[
r = \frac{aX}{\beta \overline{W}},
\]

where \( \overline{W} = \frac{1}{n} \sum_{i=1}^{n} w_i \); that is, the mean level of wealth. Following Cornes and Sandler (1994), it can be shown that \( X = b^{1-b} \overline{W}^{a-b} \). It follows that, in Nash equilibrium, wealth distribution is of no consequence. Wealth inequality does not matter in this scenario.

Bergstrom et al. (1986) and Cornes and Sandler (1996) find that the distribution neutrality result does not hold or is ambiguous in cases where the collective input is not a pure public good. In the case of an impure public good (i.e., \( \alpha > 0 \) and \( \beta > 0 \)), perfect wealth equality within the contribution group implies ambiguous results regarding joint surplus. The implications rest on the substitutability or complementarity of the private and collective input. If the inputs are substitutes, then the group member with the least wealth has the highest marginal product of contributing. Any re-distribution of wealth within the group is exactly compensated for by members adjusting their contributions in relation to their wealth gain or loss (Warr, 1983). In this case, it is not clear if joint surplus increases or decreases (Bardhan, 2006). If, on the other hand, the private and collective inputs are complementary, then the problem of congestion and over-contribution are apparent. Over-contribution occurs because members gain from the total contribution of the group so individually they contribute more to gain relatively more from the group. Congestion occurs when over-contribution reduces the capture of benefits from the public good by other members. Where over-contribution outweighs congestion a pure public
good scenario (positive externality) exists. Where congestion outweighs over-contribution a commons scenario (negative externality) exists.

It can be shown that in positive externality environments (i.e., pure or impure public goods) that the distribution neutrality theory holds (pure public good) or is ambiguous (impure public good). Depending on the substitutability or complementarity between inputs, joint surplus may increase or decrease. Bardhan (2006) compared the two extreme cases of perfect wealth equality (all members have the same level of wealth) and perfect wealth inequality (one member has all the wealth) and found that joint surplus was increased with perfect wealth equality. In negative externality environments, the merits of perfect wealth equality are not global. Under conditions of over-contribution perfect wealth equality is inferior in joint surplus terms in comparison to perfect inequality (Dayton-Johnson and Bardhan, 2002).

Wealth is not static and neither are values. In a dynamic state, the level of joint surplus may increase or decrease with respect to changing wealth equality (Baland and Platteau, 1997; Baland, et al. 2003; Itaya, et al. 1997). In other words, there is a range (or ranges) over which wealth inequality positively or negatively impacts joint surplus. The inequality predicament may not be so much a matter of wealth inequality as it is inequality of access to resources and markets.
CHAPTER 5 - Solidarity and Usufruct Rights

Conceptual Framework on Property

A critical precondition for social and economic development is a society’s ability to establish institutions that define, defend (by rule of law), and enforce property rights. The emergence and evolution of property rights is a general result of the interplay between political and economic influences. A brief historical review of property rights and land tenure (i.e., usufruct rights) is germane to the study of land policy. Inasmuch that land rights can only be properly understood in the context of their development, a broad sketch of their origins will help in unpacking the current paths of economic development; especially, agricultural development.

The definition of property is all together simple and complex. It is simple in that logic dictates property as that which is proper to somebody. Property is the exclusive right to possess, enjoy, and dispose of a tangible or interest in a tangible. It is complex because the logical notion of property is difficult to apply when addressing issues of the types of concerns (e.g., objects, intellectual) that can be “owned”, the acceptable methods of property acquisition, the role of property in wealth accumulation and distribution, and who has superseding rights to property (e.g., individual, society, state). Complexity is further exacerbated when considering who is determining the positive and normative theory on which the concept of property is based. Jurists, for example, add legal structure to property, rights, contracts, obligations, liability, easements, and claims. But they are not anointed to determine the aims of a virtuous society and the role of property holdings. Social scientists, whether they be political scientists, ethicists-philosophers, or economists, must examine the institutional questions of the good of property.
Customary (Regulative)

The rubric of the growth of property as *legalis* can be divided into three orbs; namely, customary (regulative), casuistry (remedy), and just claim (right). Customary rules shape property and property rights by social institutions. The authority of such institutions is based on a generational belief system and kinsman culture. To question or rebel against the customary rules or institutions is tantamount to dishonoring cultural norms and family. Social constructs encourage submission and adherence to the customary institutions in solving conflicts about the use of scarce resources (Ault and Rutman, 1979; Hayek, 1989). Customary rules are a regulative principle in the tribal system of property and rights. Examples of customary tenure can be found in tribal systems where use rights over objects, be they land, tools, livestock, or food, are allotted to families or kinsman groups for an established time period (Thompson, 1896; Manyong and Houndekon, 1997). Rights are allotted usually by a societal council or group of elders. The practice of shifting cultivation is an example of tribal customary tenure (Ault and Rutman, 1979). Shifting cultivation is a system where a plot of land is cultivated by a family or kinsman group for a period of time, usually until soil fertility weakens, then set fallow. During the fallow period, cultivation is shifted to another plot of land allotted to the cultivating group. The key point to customary tenure rules is that usufruct rights to property is not a notion of individual rights.

When shifting cultivation is no longer adequate to restore soil fertility, then investment in land, such as manure, stover, terracing, erosion control, or irrigation, is required to maintain or increase agricultural production. Investment will not occur unless the investor derives some
benefits. Societies add greater definition and security to property rights as the need for land related investments increase.

*Casuistry (Remedy)*

The institutions of customary rules are less regulative on a society as political units are enlarged, trade is expanded, and with increased pressures of economic constraints (Hayek, 1989). With the enlargement of political units comes the emergence of law concerning public order, taxation, and the provision of public goods and services. Expanded trade fosters the development of contracts, terms of ownership, liability, and arbitration. The pressures of economic constraints, such as scarce resources, access to factor inputs, processing, credit, and output markets, forces provisos to assess property rights at the individual level.

The origin of the modern concept of property can be attributed to Roman law. More accurately one might say the Western and most influential concept of private property is anchored in Roman law. India and Egypt must be recognized as having landed property fully established early in history. What Roman law did was to add formal articulation revealing who had the rights of control over property, what property belonged to a head-of-household (*dominus*) and, developed over time, what remedy was available to a Roman citizen for infraction against property (Stephenson, 1891).

*Dominus* refers to the owner of a good. *Dominus* required a physical control over the good considered property; e.g., slave, crops, garners, household goods, et cetera. *Dominium* refers to quiritarian ownership of a good. Quiritarian ownership was based on Roman citizenship and a proper method of ownership conveyance (Stephenson, 1891). Conveyance rested on the agreement regarding transfer or delivery of property. For example, a person receiving property only by delivery did not possess full ownership; only usufruct ownership.
The quiritarian owner could press suit against the usufruct owner, and, according to the concept of *dominium ex jure quiritanum*, remedy would be granted to the quiritarian owner.

Emperor Justinian, in managing a larger and more complex empire than his predecessors, ordered a complete compendium of Roman laws. This codification of laws, the *Codex Justinianus*, was issued in Anno Domini 534. All inhabitants of the Roman Empire were considered Roman citizens by this date. The dominium concept of property was vastly enlarged and the distinction between citizen and non-citizen property became so muddled that Justinian abolished the dominium system (Blume, 2009). Under Justinian, all inhabitants of the Empire could seek remedy against all infractions for goods protected by the law code. Documentation of agreements, transfer, and delivery of property became increasingly important in deciding remedy cases. The registration and titling of real property became the norm during the reign of Justinian (Stephenson, 1891). New Roman law continued to define property more in accordance with possession than with rights.

**Just Claim (Right)**

The conception of rights associated with property arose within the context of Papal debate over the power man can exert over goods (Bouckaert, 1990). In the first half of the Thirteenth Century (circa 1212), Franciscan mendicancy provoked deliberation over reconciling the morality of poverty versus wealth. Ideological friction, bordering on hypocrisy, was apparent to both the Papal Church and her benefactors. The Franciscans claimed that poverty was pure Christian morality whereas wealth was purulent. This notion contrasted starkly with the reality of the Papal See and the Franciscan order; for both were bestowed with remarkable wealth. The mendicants argued that they possessed no property, either individually or collectively. The goods the order used were simply us “of fact” and not “of right.” The goods utilized were still
the property of the donor. If the donor relinquished ownership, then the order administered the
property on behalf of the Pope.

To briefly highlight the historical development of the “Franciscan property” debate,
mention is made of:

1) The Papal bull *Quo elongate* by Pope Gregory IX in 1230 stipulating that if
members of a religious order could not avoid the use of material goods, then
the property used by the order did not belong to the order but, rather, to the
Pope as chief representative of the mother church (Frank, 2008). Thus, all that
the Franciscans used belonged to the Pope. Gregory IX welcomed the
Franciscan claims in an attempt to increase the domain of Papal influence.

2) The bull of Pope Nicholas III in 1279, *Exit qui seminat*, articulating the
concept of *duplex dominium*. There is a distinction between ownership and
tenancy. Nicholas III, upholding Bonaventura’s views, declared that property
carried rights; ownership rights and user rights. In short, there was a sense of
proprietorship with the owner of a good and with the user of the good. The
owner would maintain control and disposition of the good while the tenant was
responsible to exercise wise stewardship over the good. This bull further
distinguished between property, possession, and usufruct (Frank, 2008).

3) Pope John XXII’s bull *Ad conditorem canonum* in 1322 addressed the
questions of: 1) did Jesus Christ the Savior and his disciples own property in
common, and 2) did they claim any right over property. The conclusion was
that Christ and his disciple did not own property in common and they exercised
individual responsibility and accountability over goods. To be fully
accountable and responsible for goods necessitates rights. Holding property is
not a vice. Furthermore, John XXII stated that poverty is an obstacle to the
greatest virtue of charity (Frank, 2008). Absolute poverty, a state of
discontented desire for material goods, infringes on the cooperation of sharing.
In other words, poverty diminishes solidarity.
4) The Franciscans considered their life of collective action for poverty as ideal. The Pope’s advisors considered collective poverty as ideologically dangerous (Mäkinen, 2001). Collective poverty is dangerous in the sense of retarding the betterment of the human condition. Production and wealth creation, from ownership of property, are required in improving the human condition temporally. Based on the argument of consumable goods, such as bread and wine, it was shown that usufruct rights and legal use connected to property could not be separated. No one can justly use a good without having some right in it; at least a right of using. No one can justly use a good consumed by use without having dominium in it. John XXII was ultimately proposing a solution to social conflicts based on a system of individual property rights and inheritance rights (Mäkinen, 2001).

5) William of Ockham, in his Opus nonaginta dierum, submitted to Pope John XXII that property proper required the faculty to place a claim on a good. William of Ockham essentially established the modern day concept that man’s power over a good is distinct from the good. In other words, the right of power over a good establishes property ownership. Ockham further purported the notion of exclusive property; that is, property belongs to an individual or group in such a way that it cannot be anyone else’s in the same way. Not all property need be exclusive however. Common property exists. Common in the sense of being available for use to everyone alike. Ockham expounded on rights as either a “right of heaven” (natural rights) or a “right of law” (positive rights).

The Franciscan property debate forced inquiry regarding property to move beyond the focus of remedy (casuistry) and toward rights (just claim). This is critical for it juxtaposed the subsequent operational features of private property rights, solidarity, and resource access.
The great thinker Hugo Grotius (1583-1645) contributed additional structure to defining just claim on property. Grotius combined the philosophies of theologians and jurists to articulate the distinction of and the necessity for property claims based on ownership rights and usufruct rights. Meneer Grotius maintained the permissibility of acquiring and retaining those properties which are useful for living (Kilcullen, 2001). Such properties or goods are bestowed by the LORD God Almighty “upon the human race, not upon individual men, since such gifts could not be turned to use except by private occupation, it necessarily followed that what had been seized on should become his to each. Such seizure is called possession” (Grotius, 1603:11). He further explains that no one should or can (note morality and legality) occupy that which is occupied or in the possession of another (Grotius, 1603). Additionally, abstinence from using [sic occupying] what another was in process of using is warranted with regard to common rights to use. Private property erupts from an agreement of occupation. Respect for property, both private and common, was axiomatic in Grotius’ perspective (Bouckaert, 1990).

The principle contribution of just claim theories on property was to advance the thesis that individuals possess rights to property through recognized ownership or use agreements. Property rights theories also have recognized the difference between movable and immovable property. The concepts presented here have been reference points on which land policies have relied on for centuries.

Scholars have contributed substantially since the 1600’s in further developing man’s concept of property. In jumping from the Seventeenth to Twenty-First Century does not imply a lack of insight offered on property during the intervening time period. The implication is that a fully developed treatise on the origin of property is beyond the scope of this dissertation.

Land Transactions
Land tenure security is an important condition for land related investment. Unless land rights are transferable, the benefits of investment will be limited. Land transactions perform an important role in providing access to land and allowing for the capitalization of land. In transition economies such as Moldova, land lease markets have been an important step in improving rural household welfare. Land lease markets enhance productivity and equity through low cost transfer of land to more productive users (Deininger, 2003). Moldova’s land adjustment process led to severe land fragmentation. Land lease arrangements have assisted land consolidation efforts. Approximately, eighty percent (80%) of the four hundred forty thousand (440,000) private farms in Moldova incorporate a lease agreement (Lerman et al., 1998). Moldova has experienced a more rapid development of the land market in contrast to other CEE countries. Some countries have discouraged land lease markets, such as Estonia, Albania, and Bulgaria, in the desire to maintain egalitarian policies. These countries have poorly developed land markets. One explanation for Moldova’s relative success in land markets is the basing of her land code on the aforementioned Latin (Roman) land law. The Latin code encourages private ownership and responsibility. Moldova has incorporated and codified a just claims form of land ownership.

A just claims (rights) form of land ownership is beneficial to agrarian households. Just claims allow for lease markets to develop. A theoretical crop production model can be utilized to show that 1) usufruct rights markets will lend toward small but efficient crop producers (Deininger and Jin, 2003), 2) land area operated by a household will decrease as transaction costs increase, and 3) an increase in off-farm wages will increase the amount of land available to let. Let farm household \( i \) possess a certain amount of land (\( \bar{A} \)), labor (\( \bar{L} \)), capital (\( \bar{K} \)), and technical skill (\( s \)) (Deininger and Jin, 2003; Hung, et al., 2007). Further assume that labor can be hired in
or hired out by the household; a market for usufruct rights exist in which land can be rented in or rented out; that credit is constrained; and that transaction costs are present for production.

The agricultural output of the household follows the production function of

\[ Q = sf(l_r, l_h, x, a) \]

where \( s \) represents the agricultural production ability of the household [the production ability variable was introduced by Deininger and Jin (2003).]; \( l_r \) is household labor, \( l_h \) is labor hired outside of the household, \( x \) represents a vector of factor inputs with \( \sum x = X, a \) is the land area operated by the household with \( \sum a = A \).

The farm household desires to maximize income. Income is garnered from agricultural output, off-farm wages, and land rents. The household may derive income also through renting in land if income benefits outweigh rent-paid-out costs. Household income maximization is

\[
\pi = \sum Psf(Q) + w_1 L_{off} - w_2 L_h + R_{out}(A - A)(r_a - T_a) - R_{in}(A - A)(r_a + T_a) - \sum (p_x c_x)x - b(r_b + T_b)
\]

where \( P \) is output price, \( L_{off} \) is household labor off farm earning wage \( w_1 \), \( L_h \) is labor hired in by the household being paid wage \( w_2 \), \( R_{out} \) represents land rented out by the household carrying land rental rate of \( r_a \) and transaction costs \( T_a \), \( R_{in} \) is land rented in by the household, \( p_x \) is the price of factor input \( x \), \( c_x \) is associated cost of factor input \( x \), such as carriage costs and labor costs that increase the direct cost of utilizing factor input \( x \), and \( b \) is a credit variable indicating borrowing with \( r_b \) being credit interest rate and \( T_b \) being credit transaction cost.

The production function satisfies the assumptions of being an increasing, strictly quasi-concave, twice differentiable function. The \( f(Q) \) is identical for each farm household and the household optimizes each argument of \( f(Q) \). The first-order conditions of the maximization problem are:
\[ \frac{\partial \pi}{\partial I_f} = Ps \frac{\partial f}{\partial I_f} - w_i = 0 \]  \[1\]

\[ \frac{\partial \pi}{\partial I_h} = Ps \frac{\partial f}{\partial I_h} - w_z = 0 \]  \[2\]

\[ \frac{\partial \pi}{\partial x} = Ps \frac{\partial f}{\partial x} - (p + c) = 0 \]  \[3\]

\[ \frac{\partial \pi}{\partial a} = Ps \frac{\partial f}{\partial a} - (r_a - T_a) = 0 \]  \[4\]

\[ \frac{\partial \pi}{\partial a} = Ps \frac{\partial f}{\partial a} - (r_a + T_a) = 0 \]  \[5\]


\((r_a - T_a) \leq Ps \frac{\partial \pi}{\partial a} \leq (r_a + T_a)\). Some conclusions derived imply the following points:

1) If returns to household on-farm labor remain the same, an increase in off-farm wages encourages the renting-out of land. In turn, the renting-out of land impacts land consolidation efforts.

2) As production technical skill \((s)\) increases, the amount of rented-in land increases.

However, households with a sizable amount of land \((\overline{A})\) decrease rented-in land with an increase in \(s\). Operationally, this indicates the existence of small and efficient producers.
3) Decreases in transaction costs lead to increases in land area operated ($A$).
CHAPTER 6 - Solidarity and Utility Considerations

Exchange is one of the most ubiquitous of all human behaviors. A principle of exchange is that both parties, either individuals or groups, must derive greater benefit than sacrifice for the exchange to occur. Exchange enhances an economic agent’s utility. Solidarity informs utility; thus, solidarity impacts exchange. Solidarity can be tersely defined as “social cooperation.” Utility maximization unwrought is based on the premise of self-regarding behavior. Solidarity, on the other hand, is other-regarding behavior. These two elements in exchange need not be in discord; quite the opposite, they act in concord.

An initial illustration of an exchange model with solidarity can be presented by employing the following utility function:

\[ U_i = \sum_{j=1}^{n} m_j I_j, \quad [7.1] \]

where \( I \) represents income, \( m \) is a decision coefficient with agent \( i \) in response to \( j \)’s contribution to the group, and \( j \neq i \). This utility function is considered to be subjective (other-regarding) or inter-dependent (together-regarding). In other words, an individual group member can make a choice that affects their own income as well as the income of others in the group. Agents internalize, hence \( m_j \), to some degree the effect of their choices on the payoff to others; thus, a Cournot-Nash framework precipitates. Let \( C_j \) represent the benefit to \( j \)'s income stimulated by \( i \)'s contribution. Thus, \( I_j = \hat{I}_j + \sum C_{ij} \), where \( \hat{I}_j \) is initial income of \( j \). Agent \( i \)'s utility can be written as \( U_i = \sum_{j=1}^{n} m_j C_{ij} \). Agents who maximize only their own income, depicted by \( m_i = 1 \) and \( m_j \leq 0 \), are considered to be self-regarding. Whereas agents who consider the income of others, \( m_j > 0 \), are considered to be other-regarding. Essentially, agent \( i \) has the binomial
decision of taking action to cooperate or taking no action toward cooperation; that is,

\[ m_{ij} = \begin{cases} 
0 & \forall \cdots E(U) < 0 \\
1 & \forall \cdots E(U) > 0 
\end{cases} \]

When \( m_{ij} = 0 \), for all \( i, j \), there is no solidarity action. Only when \( m_{ij} > 0 \) does solidarity have meaning.

Efforts to re-distribute resources toward achieving equality would focus on decreasing \((I_i - I_j)\). Equality is not conducive to equation [7.1]. To have positive transfers from \( i \) to \( j \) requires \( C_{ij} > C_{ji} \); that is, the welfare benefit to the recipient must outweigh the cost to the donor. This condition occurs when \( i \) is altruistic (charity induced) or \( i \) is coerced by a third party influence. Altruistic behavior is a form of solidarity in that altruism is an individual voluntary contribution of charity whereas solidarity is an individual voluntary contribution of cooperation. Coercion occurs when a third party is determining \( i \)'s role in carrying the costs of equality driven policies. In other words, under coercion \( i \) is influenced by a third party to decide \( m_{ij} = 1 \) (i.e., take action to contribute); even in violation of [7.1]. Solidarity or cooperation under coercion is kin to collectivism. Economic justice is infringed in coercive environments. The reader is invited to consult Appendix A for a compendium on economic justice.

Efforts to distribute resources from a development standpoint would focus on increasing \( I_i + I_j \). This development objective is conducive to [7.1]. Agent \( i \) has voluntary control over \( m_{ij} \). Let agent \( i \)'s decision variable be influenced (i.e., other regarding utility) by agent \( j \)'s actions. Now allow

\[ m_{ij}^{(1)} = \alpha m_{ij} + \beta C_{ji} \quad [7.2] \]

setting all \( m_{ij} = m_{ji} \) results in

\[ m_{ij} = \frac{\beta}{1 - \alpha} C_{ji} \quad [7.3] \]

Substituting [7.3] into [7.1] yields
Let $\lambda = \frac{\beta}{1-\alpha}$. Lambda ($\lambda$) can be considered a social valuation term. Placing lambda into [7.4] makes $U_i = \lambda C_{ji} C_{ij}$. [7.5]

Care needs to be taken to structure preferences and to assess beliefs and risk attitudes in a manner that is appropriate for the decision maker and the choice set. To offer explanation for human behavior requires a proposition, beyond observed data, based on established principles. Some conceptual framework is required to develop an explanatory model. In the theory of choice, the subjective expected utility system of models provides a conceptual and computational framework to analyze decisions. A subjective utility (SU) model represents decisions under uncertainty with a set of future mutually exclusive events and a set of outcomes. The decision maker must make connecting assignment of outcomes to events. The decision maker’s choice is to take action based on outcomes of various events. The decision maker’s beliefs concerning events are represented by a probability distribution and the expected value assigned to outcomes.

Mathematically, SU can be written as:

$$U(A) = E_p[v(x)] = \sum_{i=1}^{n} p_i v(x_i),$$

Where $A$ is the action from decision, $p = (p_1, \ldots, p_n)$ the probability distribution, $p_i$ is the probability of event $E$, and the value place on outcome $x$ is the utility function $v(x_i)$. 

$$U_i = \frac{\beta}{1-\alpha} C_{ji} C_{ij}. \quad [7.4]$$
CHAPTER 7 - Solidarity and Agricultural Development

Inequality in economic endowments has been a concern of mankind for ages unto ages. Since agriculture is the foundation of manufacture and commerce, attention to policies mitigating inequality and poverty in the rural/agrarian sector is warranted. Anriquez and Stamoulis (2007) state that “the battle to achieve the global society’s stated objective on hunger and poverty reduction will be won or lost in the rural areas of the developing countries” (Anriquez and Stamoulis, 2007:2). Agriculture’s role in economic development is a dynamic process through the stages of national transformation. In the early stages, agricultural growth is energy for the engine of national economic growth. Thus, agricultural development plays a significant role in reducing poverty. In later stages, agriculture assumes a secondary role in economic transformation.

Diao and Hazell (2005) contend that developing production/processing agriculture capabilities at the local level is an efficient and pro-poor option for battling poverty. Agriculture value chains are changing due to technology and are becoming more integrated. Resultantly, the small producer has constrained market access; i.e., blocked access to inputs, services, processing, and domestic and cross-border trade. Constrained market access is reflective of inequality.

Land provides a foundation for economic activity and the functioning of markets and institutions in many developing economies (Deininger, 2003). Effective land policy fosters investment and enhances productivity. Land access has been shown to be a poverty reducing tool (De Janvry, et al., 2001). Access to land coupled with access to various components of the value chain (e.g., inputs, credit, and processing) is of great importance for poverty reduction,
investment, and economic growth. Key features of land policy that stimulate economic growth are secure usufruct rights and the ability to exchange those rights at low cost.

Hernando de Soto (2000) effectively argues that access to usufruct rights is the principal factor in mitigating economic inequality and poverty. The lack of secure usufruct rights exacerbates poverty by blocking access to markets throughout the economic value chain. A reliable socially sanctioned enforcement institution is required to secure usufruct rights. Secure usufruct rights allow assets to be converted or leveraged into productive capital.

The properly aligned juncture of solidarity and usufruct rights can have important pro-poor implications for agricultural production systems. Jointly, the mechanisms of solidarity and usufruct rights provide incentives for the sustainable management of productive resources. The Consultative Group on International Agricultural Research (CGIAR) has created a matrix which illustrates the linkage between solidarity and usufruct rights in relation to agricultural technology adoption (Meinzen-Dick and Gregorio, 2004). Figure 1 illustrates the CGIAR matrix.
Agricultural technology adoption requires the consideration of the time horizon to payoff and the spatial scale involved. For example, a single producer on a certain plot of land can adopt a high yield crop variety (HYV) and realize payoff in a single growing season. Some technologies however require a longer time horizon between adoption and payoff. When the payoff to technology requires a longer time horizon, more secure usufruct rights are required. Secure usufruct rights have a bearing on the producer in that rights serve as an incentive in the technology adoption decision making process. For example, in an environment of weak usufruct rights a producer may be reluctant to invest in terracing or forestry propagation. As the spatial scale increases so does the need for operational solidarity. Technology adoptions that encompass aggregate farm practices, such as integrated pest management (IPM), benefits from solidarity in the management of that technology. Both solidarity and secure usufruct rights are crucial in natural resource management practices.
Land Fragmentation Issues

The former socialist countries in Europe and Central Asia share a common institutional heritage in agriculture. The Soviet model of socialist agriculture dominated the region. The model featured pervasive central controls and large-scale collectivized state farms. Inefficiency reigns in socialized agriculture in part due to central coordination of production which is sluggish or impervious in reaction to market signals and exceptionally large farm size (Lerman, 2004). The average collective farm size in socialist Central and Eastern Europe (CEE) and the Commonwealth of Independent States (CIS) in 1980 was 4,600 hectares (≈ 11,366 acres) (USDA, 1993). Such large farms are rare in free market economies largely due to high transaction costs.

During the restructuring of the former socialist countries in CEE and the CIS, land reform, under a privatization motif, was underway. Radical reconfiguration of land resources included changes in land usufruct rights, transferability of land, and land use patterns. The objective of usufruct rights reform was to achieve individualized and alienable rights to land. Individualization of usufruct rights are theoretically based in the name of economic efficiency. However, research indicates that land reform toward individualization is often motivated by the sentiments of social justice and egalitarianism (Swinnen, 1997).

In CEE countries, land fragmentation is a well documented outcome of land reform policies. Land fragmentation, characterized by a single household possessing rights to a number of small geographically dis-joint parcels of land, is widely considered a hindrance to efficient agricultural production (Deininger, 2003; Vranken and Swinnen, 2006). Land fragmentation has three dimensions. One dimension is the multiplicity of undivided shares. This type of
fragmentation refers to the number of share holders of a single title. A second dimension is non-contiguous land parcels held by a single farm household. This type of fragmentation hampers farm efficiency due to cost associated with movement between plots. A third dimension of land fragmentation is small plot size and unique plot geometry. This increases the difficulty of access to plots, creates land cultivation difficulty, and increases production costs.

Land fragmentation, in situ, need not be a source of production agriculture inefficiency. In an environment where factor input markets operate perfectly, then factor inputs can be traded in or traded out until all factors of production exhibit equal marginal products across farm households; thus, productive efficiency ensues (Binswanger and Rosenzweig, 1984). In the presence of land fragmentation, accessible usufruct rights are integral in achieving efficiency. This is particularly true under conditions of input market constraints or where land sales markets function poorly. Usufruct rights markets have been shown to improve efficiency and equity in agricultural environments where high levels of uncertainty, high transaction costs, constrained credit markets and risk mitigation (i.e., insurance) issues exist (Deininger, 2003; Sabates-Wheeler, 2005). Additionally, Cheung shows that risk pooling is an important consideration in land lease choice (Cheung, 1969). Cheung argues that land lease is a logical outcome of risk pooling. Lease agreements, under conditions of production risk, achieve risk pooling most effectively when labor monitoring is enforceable and costless (Otsuka and Hayami, 1988). This Walrasian notion is an unrealistic assumption in a setting with institutional constraints (Bowles and Gintis, 2000). Permanent labor contracts are inefficient unless effort is perfectly and costlessly enforceable (or economies of scale prevail) (Hayami and Otsuka, 1993). The choice of lease contract must be justified by trade agreements where both landlord and tenant have assets to contribute to the venture; e.g., technical skills.
The present day Republic of Moldova emerged as a sovereign nation in 1991. Twentieth Century history saw Moldova as a territory of the Russian Empire, as being ceded to Romania in 1918, as being reclaimed by Russia in 1924 as a Soviet Socialist Republic, as being under German and Romanian control from 1941-1944, and once again as a state within the Union of Soviet Socialists Republics (USSR). Under Soviet influence, collective farms dominated agricultural production in Moldova. State controlled agriculture included centralized oversight of prices and margins, rural social services, and agriculture industry. Average farm size in a collective was approximately 3,400 hectares (≈ 8,400 acres). Moldova was an important supplier of wine, tobacco, potatoes, sunflower oil, and orchard products within the USSR. Moldova boasted having the highest agricultural output of any Soviet republic and contributed slightly more than 2% of the total Soviet agricultural production (United States Congress, 1993). With the proclamation of sovereignty in 1991, the Republic of Moldova initiated land reform policies to restructure agricultural systems.

The transition from command driven economies to open market economies is complex and often volatile. This is especially the case with regards to land use policy (Cashin and McGrath, 2005). Moldova began the transition to reshape the agrarian sector in 1992. The footings on which de-collectivization of agriculture rests are restitution of just claims, improving agricultural efficiency, and improving food security (Kutuzov and Haskins, 2003). The objective of establishing private land property rights is to increase the total welfare of agents in the agrarian sector and to economize the costs of institutional arrangements associated with agricultural production and industry (Cimpoiș and Baltag, 2004). One of the primary goals of
Moldovan land reform was the creation of independent family farms. The design of land policy was equity driven. The Land Code of 1992 specified a nomenclature of land entitlement. The following nine points are an example of the complexity of proof associated with land entitlement eligibility:

1. Members and pensioner of collective farms and employees and pensioners of state farms or other agricultural enterprises.

2. Employees and pensioners of organizations and enterprises who live in the area and are directly engaged in construction works and use of land reclamation systems and improvement of soil fertility in the respective locality.

3. Residents of rural areas, who were transferred from agricultural enterprises to collective farms and inter-enterprise construction and transportation organizations, including pensioners thereof.

4. Employees and pensioners of inter-enterprise cattle breeding farms.

5. Persons holding an elective office or serving in the army, who previously worked in the agricultural sector.

6. Persons who have worked in the agricultural sector of the respective locality: men for 25 years and women for 20 years.

7. Veterans of World War II and other military services overseas; and families of those who have died as a result of defending Moldova’s territorial integrity and independence. All participants must reside in rural areas.

8. Rural residents who have suffered under political oppression and have been subsequently rehabilitated.

9. Persons who have transferred their land to collective farms, but who do not work therein (Kutuzov and Haskins, 2003).

To further foster equal access to land, land shares were disseminated by type (arable land, orchard, and vineyard) with each recipient gaining a land share in each type. This land policy schema based on equitable distribution resulted in land fragmentation. Land fragmentation in
Moldova consists of both small size farms (average 1.5 hectares) and multiple disjoint land parcels.


Appendix A - Economic Justice

Robin Hood, that legendary champion of the underprivileged, is often called upon when contemplating the “how” in helping the poor. In the name of economic justice, many citizens, religious officials, and governmental leaders call for state intervention to take from those that have and give to those that have not; that is, to coerce economic redistribution. On the surface, the message of Robin Hood is to rob from the rich and give to the poor, but more deeply rooted in the story lies a cloaked moral.

Verily, the story is one of justice. Robin and his band of merry men are opposing the coercive rule of Prince John, the ignominious brother of King Richard I the Lion heart. While Richard I was participating in the Third Crusade he charged Prince John to rule over the English lands. Prince John and his entourage of corrupt supporters harshly treated the people of England. This was particularly true with regard to judicial matters and taxes. Robin Hood’s own crusade is concerned with the justice of economic distribution. With fervency, and coercion, which makes Robin no better than his antagonist Prince John, Robin fights for distributive justice.

The campaign for just economic distribution hinges on the following question: on what basis should economic goods and services be distributed? This is a philosophical question that can entertain a variety of approaches. For example, one school of thought, the Libertarian perspective, suggests that the free choice market system guarantees distributive justice. On the other hand, the Utilitarians maintain that human needs and interests should guide economic distribution. All camps voice their concern for maintaining human dignity. Within the context

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9 John, who eventually became King, instituted the first income tax in England and, as a result of the Baronial Rebellion, was forced to enact the Magna Carta in 1215.
of human dignity, the pursuit of a virtuous society is imperative. In a virtuous society, economic justice settles on the issue of equality. Therefore, a discussion on economic justice must address the notion of equality.

If equality is under the umbrella of justice then what is the moral evoked from Robin Hood’s legendary actions? This study contends that the greatest approximation of economic justice is economic liberty. To progress toward this objective, there are three concepts addressed; justice, equality, and economic liberty. The concept of justice section suggests that justice is beyond the realm of positive economics, justice is based on virtue, and equality is essential for just treatment. The concept of equality section briefly outlines three types of equality and presents an economic view of equality. The economic liberty section maintains that liberty requires discipline and economic liberty is rooted in free choice.

**The Concept of Justice**

The concept of justice is often raised in economic discussions. Since economics itself is a value free discipline, economic systems are incapable of providing criteria for what is just. In other words, the market does not place value on an individual’s choice. Further, economics is principally a positive social science. Economists try to answer positive questions of distribution: what portion of income does the lower ten percent of the population receive? Questions of justice or fairness are purely normative in nature. When one asks what should the lower ten percent of the population be receiving, an economist can only give an opinion. Concepts of justice are thus beyond the realm of positive economics. Consequently, what is just is tasked to moral philosophers and theologians. We shall proceed from this platform.

To be just is to be in conformance with righteous and equitable treatment amongst the actions of man. In other words, to dole what is merited without partiality. The doling in a
righteous and equitable manner is the critical point from which justice glows. Thus, justice is the principal of rectitude and rightly dealing with others. Showing justice toward others is to respect the human dignity and rights of each in a manner which upholds equality.

On what is this notion of justice based? It is based on the virtues. Standard wisdom accommodates two categories of virtues: human and theological. The human virtues, those moral attitudes that govern a person’s actions, are prudence, temperance, fortitude, and justice. The theological virtues, those that relate a person to God, are faith, hope, and charity (i.e, love). One who is virtuous has an unrelenting disposition to freely do the moral good. Justice, as a moral virtue “disposes one to respect the rights of each and to establish in human relationships the harmony that promotes equity with regard to persons and to the common good” (Catechism, 1994:495). One may say that justice as virtue is universal justice in an Aristotelian or Plutonic sense. In Economic Justice and the State, Ronald Nash suggests that universal justice is synonymous with one’s righteousness (Nash, 1986). In other words, it speaks to being a morally virtuous person.

Being a morally virtuous person requires rightly dealing with others in social associations. The person is the principle subject of society and the end of all social institutions. As such, voluntary associations (e.g., institutions) must be encouraged to promote the fullest human potential and participation possible of the largest number in a community. Voluntary association permits personal freedom, choice, and initiative to attain objectives beyond discrete limits. Hence, right treatment persists when the dole is according to merit. Justice as merit is referred to as particular justice. Particular justice is comprised of commutative, judicial, and distributive aspects. Commutative justice (i.e., commercial) regulates exchange in accordance with human dignity and rights. Judicial justice implicates impartiality in judgment before the
community. Distributive justice calibrates citizens’ market access. Within the context of particular justice, impartiality and consistency are necessary but not sufficient conditions to ensure just treatment. It must be noted that a fair procedure does not ensure just treatment. In other words, a fair procedure can conclude in unjust results. There is an additional requirement to bring about justice; i.e., equality. Aristotle stressed equality as the ‘fairness” of moral justice. He suggests that equality adds content to the concept of justice. That is to say, equality is the essential aspect which incubates just treatment.

**The Concept of Equality**

There are three conceptions of equality in the vein of social science definitions: equality under the law, equality of opportunity, and equality of result. Equality under the law (aligned with legal justice) implies fair treatment by community authorities. In other words, the judicial authority of the community (e.g., local, state, or nation) does not establish distinction among persons that are irrelevant to the case under hearing. Equality of opportunity (aligned with commutative justice) suggests that all persons ought to share in the base level of access to social institutions. That is, access should not be denied to the first rungs of social mobility. Equality of result (aligned with distributive justice) implies that one receives his due in accordance with his actions and human dignity. Justice requires that an individual receive what he merits. What pray tell is that in an economy?

**Economic View of Equality**

Issues of fairness or equality are subjective (i.e., nomiative) matters and, consequently, have no legitimate role in positive economics. End of story.
This is not to say that equality cannot be observed in an economy. If we assume that society is comprised of \( p \) individuals who produce a set of various goods, an equal economic allocation would be for each individual to receive \( l/p \) of each good. From a consumption standpoint, this \( l/p \) allocation is pure economic equality. For example, suppose the economy in which you, I, and thirteen others live produces the various goods of Malt-O-Meal, cigars, grape juice, beer, pizza, and bicycles. In a state of pure economic equality we each would get \( 1/15 \) of each good produced. Pure economic equality is an undesirable state. In the population set of a society it is unlikely that all, or even two or three, would obtain desired felicity from consuming exactly the same bundle of goods as all others. Everyone would be equal in regard to their consumption bundle but consumption felicity would not be optimized. I might not derive much happiness from \( 1/15 \) of a cigar, or even \( 15/15 \) of a cigar, but may want much more than my allotment of Malt-O-Meal. Trade would need to ensue to help all reach their felicity. In addition, to reach pure economic equality would require forced redistribution of wealth from the more productive members of society to those less productive. As illustrated by the residents of Nottinghamshire, coerced transference of wealth destroys incentives to produce. In sum, pure economic equality of result implies a distribution that is antithetical to the market.

The market allows individuals to enter into trade. In the market, an individual will exchange something of lesser value for something of higher value. Also, within the market, producers serve the desires of consumers. The economist would say the market is where individuals, in self-interest, tweak their own human well-being. A point of caution is in order. Self-interest is not to be confused with selfishness. Self-interest is what brings happiness to the decision maker. Happiness may be had through either selfishness or selflessness. An individual may derive happiness from taking candy from a baby, giving food to the hungry, or making a
missionary trip to share the one true faith. The point is the market facilitates human well being. As such, ethical questions are inescapable. Economic justice, when incorporating ethics, is predicated on a greater assumption than equality of result.

**Economic Liberty**

Robin Hood was fighting the oppression of Prince John to bring about economic liberty. Exercising liberty with life and property is just in fight of respecting human dignity. Essentially, each person has a right to life, liberty, and property by virtue of person-hood. Liberty, being free from the coercive interference of others, allows one to move within the marketplace unfettered. The question arises as to the limits of liberty: are there circumstances in which these rights can be overridden or restricted? Can an individual’s liberty be restricted without consent? The strict libertarian would suggest that rights should not be impinged without one’s consent. A person morally ought not be coerced to relinquish life, liberty, or property. According to the libertarian, Robin Hood is a scoundrel that denigrates the human dignity of economic liberty. Even though he is righting a wrong, he is doing wrong himself. At the other end of the spectrum, the Benthamite would contend that the greatest happiness of the greatest number would supersede lost liberty. Liberty is a small price to pay for distributive justice.

When dealing with two extremes the answer is usually toward the middle. Thus, pure liberty does not guarantee economic justice. Recall that pure economic equality is an undesirable state; so is pure liberty. There must be some restraint to protect life, liberty, and property. The restraining factor is itself a fringe on pure liberty. Discipline is a free man’s yoke.

The type of discipline sought is not one of authoritarianism but rather one of virtue. Discipline by its very nature is prescriptive and deontological. Moral discipline is an enforcer
and not an infringer of freedom. This is the context by which economic liberty ought to be addressed! Robert Sirico suggests that liberty is a necessary condition for virtue and virtue is necessary for the survival of liberty. That is, virtue and liberty are dependent and not independent. However, liberty is not a virtue. Liberty is merely the condition that enables virtue to be exercised. The prerequisite to this condition of liberty is free choice. Therefore, economic liberty is rooted in free choice.

In a free market, each trader would trade, out of self-interest, to the extent that each is made better off. In an Edgeworth box diagram it can be seen that each trader will move to a point which makes them better off than if they had remained at equitable distribution point. Economic liberty moves the economy to a position that derives greater happiness than a position of pure economic equality.

The point is that economic liberty gains more for people than economic redistribution. Creating economic equality via coerced redistribution is a hindrance to liberty, justice, and human dignity. Robin Hood’s maxim may have been to rob from the rich and give to the poor but the moral of the story is to cultivate economic liberty. The greatest approximation of economic justice is economic liberty.