The Future Economy

An Annotated Analytical Framework for Case Studies

Authors:
Kristen Sheeran, Frank Ackerman, Noah Enelow, Eban Goodstein, Robin Hahnel, Thomas Michael Power, Juliet Schor
Corresponding Authors: Robin Hahnel, Noah Enelow.
E-mails: robinhahnel@comcast.net; nenelow@ecotrust.org
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Introduction

The United States is currently facing a triple crisis of rising economic inequality, long-term unemployment, and environmental degradation that is both national and global in scope. The 2007-2009 financial crisis, driven by sophisticated forms of speculation on real estate and other financial assets, catalyzed a broader economic crisis, the Great Recession, characterized by chronic unemployment, unstable housing markets, and economic insecurity for millions of U.S. households. The Great Recession, in turn, is only the latest event in a longer-term process of deindustrialization that has led to the hollowing-out of urban centers and the decline in manufacturing employment in the U.S. Finally, the global environmental crisis of climate change has arguably been the result of a policy focus on output growth at both national and global scales that has persisted since the post-World War II era. In the neoliberal era (1973- present), economic policies have focused even more narrowly on maximizing return on financial assets, boosting the incomes of the wealthy without regard to income or asset distribution, employment, or the environment. In general, the focus on what Herman Daly calls "uneconomic growth" has led to the overexploitation of both renewable and nonrenewable natural resources, increased competition for land and other assets, and high and rising emissions of greenhouse gases that continue to significantly impact global climate and weather patterns.

The triple crisis resulting from these three alarming trends has led to a diverse set of responses in the form of innovation and bold experimentation at all scales, from local to global. Despite the potential significance of these innovations, there is a general lack of awareness of their existence and their impacts, leading many to assume there are no desirable alternatives to business-as-usual (BAU). Evidence pertaining to the impacts is largely anecdotal. There has been little systematic economic analysis of the innovations and their contribution to a potential future economy.

E3 Network launched the Future Economy Initiative to stimulate economic research on the future economy and to build greater awareness of emerging innovations and their potential impacts. Our goals are to document and study the social, economic, and environmental impacts of future economy innovations and identify factors which contribute to their emergence, success, and limitations. Toward that end, E3 Network convened a group of leading economists and public intellectuals from around the country to create an appropriate framework for analyzing future economy innovations. The framework provided in the questions and annotations in this document provides a common structure for analyzing case studies to build a body of evidence that can enable more rigorous economic research.

Over the course of 2014, seven teams of researchers from across the country will be applying the framework to case studies in the future economy. The case studies chosen address the root causes of the crisis by promoting a more equitable distribution of wealth, reducing wasteful consumption and greenhouse gas emissions, and increasing disadvantaged peoples' opportunities to lead productive and meaningful lives. The Initiative is designed to bring much-needed research and analytical attention to existing and emerging economic innovations, which constitute an "extraordinary explosion of practical real-world economic and political experimentation" identified by such thinkers as Gar Alperovitz (2011, 5), Juliet Schor (2011), Marjorie Kelly (2012), David Korten (2010), David Bornstein (2007) and others.

The purpose of the framework that follows is to provide a coherent structure for analyzing economic innovations. The framework encourages researchers to adopt a mixed-methods approach that involves both careful, qualitative descriptions of the structure, functions and activities of the innovation, as well as quantitative analysis of the innovation's impacts on both its stakeholders and the larger community in which it is located.

Part One: Innovation

The Future Economy Framework intends for researchers to be specific in describing the innovation that they are studying: the structures and patterns of repeated interaction that give it coherence, and the aspects of the design that make it innovative. Economic analysis often suffers from lack of detail in describing the structure, function and dynamics of economic institutions and organizations, in favor of technical complexity masking simplistic narratives of optimization and single-causation. Overcoming this historical blind spot in the discipline requires careful attention to institutional detail.

1. **Please identify and describe the main features of the innovation as precisely as possible.**

There is a dearth of research exploring the process of institutional innovation in the economy, especially within the United States. New institutional economists such as Ostrom (1990), Williamson (1975) and other researchers have made great strides toward careful institutional analysis, but much work remains to be done. The process of institution-building and institutional innovation in the economy has been more extensively studied by disciplines other than economics and by researchers outside the United States. For example, sociological studies of the Mondragon Cooperative Complex (e.g. Whyte and Whyte 1991) have explored the process by which the cooperative form of organization was refined and transformed to meet the needs and goals of communities in the Basque County. More recently, studies of the Argentine recovered factories (e.g. Ranis 2006) have demonstrated the potential for participatory, cooperative economic institutions to emerge in response to crisis.

Through our framework, E3 Network intends for researchers to describe in concrete terms the practices of social organization, policy and/or market development, financial practice and/or resource management that characterize this emerging wave of economic innovations. Social equity requires new forms of economic organization that reflect principles of democracy, broad-based participation, and distributional fairness. Ecological sustainability and resilience, meanwhile, require the development of new forms of managing and interacting with ecosystems: whether through careful application of agro-ecology, agro-forestry, and sustainable forest management, or innovative methods of closed-loop industrial production and waste management.

2. **Provide a brief history of the origins and evolution of the innovation.**

Innovations cannot be fully understood outside their particular social, economic and cultural contexts. Recent popular literature on innovation, such as Steven Johnson's (2010) *Where Good Ideas Come From*, frequently consists of detailed storytelling on the origins of important, influential ideas in the minds and collaborations of specific individuals in the context of larger research efforts, often characterized by idiosyncratic developmental paths and happy accidents.

Academic literature on institutional change, likewise, tends to place it in historical context (e.g. Whyte and Whyte 1991). Future economy researchers should document carefully their chosen innovation's developmental path.

3. How does this innovation differ from other efforts designed to address similar needs and challenges?

Innovations tend to occur in clusters: new waves of cooperatives, for example, build on each other's successes and often share knowledge and best practices. Yet each innovation within a cluster - or a social movement - also stands on its own as a unique entity, which cannot be described wholly in terms of the cluster or movement of which it forms a part. We thus ask researchers to differentiate the innovation they are studying from similar innovations that may be part of the same family, cluster or movement. We also ask researchers to compare the innovation to other efforts to address or solve similar needs and challenges. For instance, if the innovation is a social enterprise designed to address a need typically met by a charity, the researcher should identify the previous or baseline efforts to address that need, and explain how and why the innovation differs from, and improves upon, those efforts.

4. How does the innovation address multiple values and priorities?

We surmise that one of the defining features of future economy innovations is the existence of multiple "bottom lines," for example: to meet the needs of workers and consumers in low-income communities while protecting and restoring the environment. The now-canonical idea of the "triple bottom line" of sustainable business – summarized in the slogan "people, planet and profit" – reflects this new orientation towards multiple criteria in evaluating the success of an organization or enterprise (Savitz and Weber 2006). Thus, future economy researchers must seek to understand the way in which the organization's structure or patterns of interaction address the inherent complexity of meeting the needs of multiple stakeholders, creating multiple forms of value, and addressing multiple intersecting and possibly conflicting priorities. Researchers may choose to address this question using the framework and language of multiple "capitals": natural, social, human, built, cultural, financial, etc. (See Appendix.)

5. What challenge or need does the innovation respond to?

Research on the future economy must identify and describe carefully the need and/or challenge that acted as a spur to innovation. We hypothesize that future economy innovations tend to arise in response to concrete needs of communities, which largely reflect today's triple crisis of rising inequality, environmental degradation, joblessness, and industrial decline. To take an example of a past innovation, the Community Development Corporation (CDC) was developed to meet the needs of underserved communities such as Bedford-Stuyvesant, a low-income African American and Latino district of Brooklyn, New York. Addressing simultaneously the problems of redlining by banks, extortionate rents, high infant mortality, low income, and pervasive unemployment in American ghettos required "a new institutional form – one that combined the community-serving mission of a nonprofit organization with the wealth-building and ownership capacities of an economic enterprise" (Alperovitz 2011, 99).

Present-day economic innovations such as the Evergreen Cooperatives of Cleveland, Ohio follow a similar pattern. Deindustrialization, exemplified by the closing of the Youngstown steel

mill in 1977, created chronic unemployment in Ohio cities. The idea of employee ownership gained ground in Ohio over the next three decades to address the needs of communities experiencing chronic unemployment. The Evergreen Cooperatives used this model to respond to the acute needs of a large, low-income district in Cleveland in the wake of the 2008 economic crisis (Howard *et al* 2010, Kelly 2012). Likewise, in present-day Detroit, the acute pain caused by deindustrialization, legacies of racial discrimination, mass unemployment, crumbling infrastructure, and finally public bankruptcy have spawned a plethora of community-based strategies for economic and social transformation (Model D Media 2014, Urban Innovation Exchange 2014, Enelow 2013). Given these examples from the past and present, we encourage researchers to identify and describe carefully the social and economic conditions that gave rise to the innovation.

6. **Does the innovation involve a formal structure? If so, what is it? If not, what kind of informal structure gives it coherence?**

We aim to make the question of structure as open-ended as possible: we do not take it for granted that a future economy innovation will necessarily have a fixed organizational structure, such as that of a cooperative, credit union, or nonprofit with a board of directors. The innovation may instead take the form of a legal innovation, such as a new business designation (e.g. L3C, B Corp) or policy (e.g. Renewable Energy Tax Credit, feed-in tariff) that promotes social equity, wealth building or ecological sustainability and resilience in a new way. In addition to exploring formal structures, we seek to probe the ways in which the innovation attains coherence through repeated interactions between people in the course of managing an asset or resource. If there is a formal institutional structure, what is it and how does it reflect the goals that the innovation is trying to achieve? If there is no "org chart" or formal institutional structure, how is coherence attained?

7. **Does this innovation contribute to building, preserving or renewing specific economic or social institutions? If so, which ones, and how? (Examples: common land ownership, cooperative enterprise management, public-private partnerships, collaborative intellectual property, etc.)**

The discipline of economics defines institutions as "systems of established and prevalent social rules that structure social interactions" (Hodgson 2006). Property rights, rules of contracting, and social norms such as marriage or even table manners all qualify as institutions. Future economy innovations may transform or draw upon existing economic institutions. For example, future economy innovations may depend upon, or work towards building or reviving, forms of common property or *commons*, a family of institutions with ancient roots currently undergoing revival as both a concept and an everyday economic practice. Researchers may explore and explain the institutions that comprise the future economy innovation they are studying, and the ways in which the innovation contributes to building, maintaining or transforming such institutions. Researchers may also identify the ways in which such institutions create or channel the impact of the innovation. For example, the researcher might explain the role of commonly owned processing machinery in ensuring sustainable livelihoods for small-scale farmers, or the way in which new forms of collaborative intellectual property or 'copyleft' transform technology and publishing industries.

Part Two: Evaluation

In this section, researchers should provide quantitative data, supplemented by descriptive material as appropriate, to describe the impacts of the future economy innovation along key dimensions: livelihoods and opportunities, empowerment, equity, environment, and wealth. Some indicators may be more or less relevant for particular future economy innovations. If certain indicators are not relevant, researchers should explain why and attempt to offer alternative indicators.

1. Livelihoods and Opportunities

A. *Needs:* Does the innovation meet the specific needs or challenges it was designed to address? If so, how?

While the descriptive material in Part 1 (above) will identify the need or challenge which gave rise to the economic innovation at hand, the impact evaluation must assess whether the innovation represents an adequate or sufficient response to that need or challenge. For example, if the need in question is food access, the analyst must ask: how well has the economic innovation improved food access for community members? The researcher must employ a well-chosen combination of quantitative data and qualitative interview or survey responses to answer this question. For instance, how many families have changed status from food insecure to food secure? How many additional meals has the organization provided? More generally, how have the organization's structure and processes facilitated the meeting of community needs?

B. *Work and Employment:* Does the innovation create opportunities for work and if so, how many? Does it employ under-represented or disadvantaged groups?

High and persistent unemployment, concentrated in low-income and minority communities, is one of the hallmarks of American life in the aftermath of the Great Recession (2008-2009). For instance, the BLS reports that in 2010, while unemployment for whites was 8.7%, for Latinos it was 12.5% and for African Americans it was 16%. Recent labor force participation rates for African Americans (61.5% in 2012) also track lower than that for whites (64.0%); women's labor force participation rates (57.7% in 2012) track lower than men's for all races/ethnicities (70.2%).

The future economy researcher should measure the total number of work opportunities created by their chosen innovation, with a focus on opportunities for under-represented or disadvantaged groups. These opportunities can be divided into conventional "jobs" measured in FTE terms, and less conventional "livelihoods" that might include self-provisioning or homesteading, self-employment, gift exchange, barter, or other forms of non-market economic activity.

C. *Income and Livelihood:* Does the innovation create jobs that provide livable wages and decent benefits? Does the innovation provide non-wage income or other forms of access to goods and services, including non-monetary?

For residents of low-income communities, improvements in peoples' livelihoods represent a crucial goal. The building blocks of adequate livelihoods include access to basic goods and services, including adequate food, housing, health care, childcare, education and workforce

training, as well as access to networks of relationships and other community resources. Income is an important indicator of a sustainable livelihood, though it is far from the only one. Benefits such as health care, dental care, life insurance and disability insurance comprise another. Non-wage income, including access to non-market and non-monetary material resources, comprise a third. A fourth category includes intangible livelihood benefits such as empowerment, a sense of purpose and meaning, cultural affirmation, autonomy and self-actualization. We ask researchers to measure carefully and document the impact of their chosen economic innovation on each of these vital components of economic well-being. Indicators might include: the number of living-wage (full-time or part-time) jobs created, the number and percentage of workers who enjoy full benefits along with the economic value of those benefits, and the type and quantity of non-wage resources provided.

D. *Opportunities:* Do the opportunities created by the innovation improve access to other important livelihood assets such as artistic expression, alternative lifestyle choices, tools, land or garden space, art materials, or communications media?

We believe that the future economy involves more than just organizations and institutions, but also direct access to livelihood assets. These assets may include garden space, open space and parkland, art materials, building materials or communications media; they may also include access to shared resources such as cohousing, tool libraries, or shared ownership of vehicles, computers, or other kinds of equipment. This question is a catch-all category for everything that does not fit within the bounds of previous discussions of opportunities.

E. *Public Sector Impact:* What is the impact of this innovation on the public sector, from municipalities to national governments? What is the role of the public sector in developing and supporting this innovation?

We expect that many future economy innovations will cut across the conventional distinctions of public and private sectors. They may take the form of public-private partnerships, or they may originate in one sector and be adopted by the other. Innovations may be "lean and mean," challenging the perceptions that large-scale, debt-financed government spending is necessary to ensure the well-being of disadvantaged groups; or, they may rely on such government spending in the form of access to infrastructure, technical assistance, education, grants, or other publicly provided goods and services. They may be revenue-neutral from a fiscal perspective, or they may have a positive (or negative) impact. For this reason, we ask researchers to comment on, and document where possible, the role of government in initiating or supporting the innovation, and the impact of the innovation on the public sector, whether through direct fiscal impacts or influence over regulatory structures, policymaking, or other indirect impacts.

2. **Empowerment and Social Relations:** Identify and quantify impacts on the following:

A. *Participation:* Does the innovation increase the participation of employees or constituents in decision making over outcomes important to their well-being?

Broad-based participation in the governance of economic organizations is one way to ensure a more equitable distribution of their benefits. We ask researchers to document the degree of participation of employees or other stakeholders in the decision-making process of their

organizations. Alternative economy theorists have envisioned participation as the cornerstone of a socially equitable economy (Albert and Hahnel 1991a and 1991b, Albert 2003, Hahnel 2012, Hahnel and Wright 2014). Examples of existing economic institutions that employ broad-based participation are participatory budgeting (Baiocchi 2011) and worker cooperatives (Alperovitz 2011, Whyte and Whyte 1991). Indicators could include the percentage representation of employees or other stakeholders on organizational governance bodies, the existence and type of mechanisms for conflict resolution, and the existence and degree of participation in general meetings, board elections, and other group decision-making structures.

B. Accountability: Does the innovation reduce hierarchies and/or increase the accountability of decision makers or managers?

Transparency of organizational decision-making, and increased accountability of owners and managers to employees and subordinates, is now part of mainstream thinking on good company practice (Savitz and Weber 2006, Ch. 1). Increasingly, innovators seek to flatten hierarchies further, in some cases getting rid of them entirely and reorganizing work processes in the form of ad hoc, project-specific teams, such as the W.L. Gore Company that manufactures Gore-Tex (Alperovitz 2011, 82-83). At Equal Exchange, a worker-owned cooperative that produces roasted and ground coffee, tea, chocolate and related products, workers elect the Board of Directors and fill six of the nine Board seats. The Board hires and supervises management; hence production workers and managerial staff are mutually accountable to one another (Equal Exchange 2014; Harris *et al* 2012).

Careful documentation of alternative modes of organization will thus be an important part of future economy research. The researcher need not derive a quantitative metric for this organizational element; rather qualitative description and/or graphical depiction of the organizational structure will be sufficient.

C. Cooperation: Does it promote cooperation, sharing or joint ownership of resources?

Many thinkers on emerging trends in economic life underscore the importance of cooperation, sharing and joint ownership in shaping the future economy. Commons, cooperative businesses, and collaborative production and consumption are three major trends in economic life that point to the increasing importance of cooperation in economic life in the 21st-century United States.

Increasingly, economic thinkers and practitioners are embracing common ownership, or *commons*, as a structuring principle of economic organizations and institutions. The website *On the Commons*, for example, offers case studies of common ownership, reflections on the concepts and practices of the commons, and strategic thinking on how to expand common ownership ideas and practices (On the Commons 2014). Entrepreneur and author Peter Barnes bases his idea of "Capitalism 3.0" on the expanded commons sector (Barnes 2006). Common ownership is growing in the United States in the form of community land trusts (Kelly 2012), as well as cooperatives of various kinds.

Cooperative businesses are an important and growing form of economic organization in the United States that is receiving increased attention from the economics profession. A cooperative is a democratically governed business, owned in common by a voluntary group of workers,

producers (e.g. farmers or artisans), consumers, or any combination thereof. There are approximately 48,000 cooperatives in the United States today, with membership totaling 120 million (Alperovitz 2011, 88). Credit unions, electric utilities, mutual insurance companies and farm producer cooperatives comprise the lion's share of these organizations and their members. It is likely that cooperative enterprises of all types – worker, producer, consumer, and multi-stakeholder – will become ever more important institutions in the future economy, and that their structures are ripe for innovative development.

Collaborative production and consumption offer still greater possibilities for reorganization of economic life along lines of cooperation, sharing and joint ownership. Collaborative consumption, known popularly as the "sharing economy," has expanded dramatically in recent years through a plethora of websites such as Freecycle, Couchsurfing, Neighborgoods, and many others. The online magazine Shareable (2014) offers a rich set of anecdotes, articles and discussion forums surrounding the emergent sharing economy; Benkler (2004) offers a theoretical treatment of sharing grounded in transaction cost economics. Meanwhile, collaborative peer production has expanded steadily over the past three decades, with open source software and the emergence of Wikipedia as prime examples. Economists and legal scholars have sought to understand theoretically and empirically the emergence of the open source phenomenon, coming to very different conclusions. Lerner and Tirole (2002) focus on individual motivations, citing concerns for career and reputation as major driving forces behind open source, and highlighting the concentration of knowledge and technical expertise that characterizes the open source software community. Benkler (2002), by contrast, emphasizes the information advantages of decentralized production as an explanation for the emergence and persistence of open-source projects, and stresses the intrinsic motivations of agents rather than their purported desires for rewards or recognition.

Theorists such as Helbing (2013) have identified both peer production and sharing as elements of a larger trend towards a decentralized, network-based economic system; he offers a conceptual framework for an "Economics 2.0" that argues for the ongoing emergence of bottom-up networked decision-making, production and consumption. Central to this framework is a reformulated vision of human beings as *homo socialis* in contrast to the *homo economicus* of standard theory; *homo socialis* co-creates and inhabits a self-organizing, "participatory market society" consisting of voluntary, network-based associations regulated by peer-based reputation and sanctioning mechanisms.

Given the expansion of common ownership, cooperatives, peer production and sharing as key factors in United States economic development, we ask future economy researchers to identify and measure the ways in which the economic innovation being studied promotes joint or common ownership, cooperation or sharing of resources of any kind. Appropriate metrics may include the size or the value of the commonly owned resource or asset, number of members of cooperative, rate of membership growth, equality in distribution of ownership shares, or others.

D. Civic Engagement: Does it promote civic engagement /public participation?

Robert Putnam (2000) famously documented the decline in civic engagement and public participation in the United States in his work *Bowling Alone*. He used the term "social capital" to refer to the web of trusting relationships that underlies civic involvement of all types; the erosion of this vital social resource, he argued, was a key factor in the decline of American public life.

Many studies have documented relationships between civic engagement and economic prosperity (e.g. Putnam 1993, Knack and Keefer 1997), but what about the other way around? Do certain economic structures promote or constrain civic engagement? For example, overwork may prevent people from volunteering, forming meaningful social connections, or engaging in political activity; reduced work hours may promote public participation as well as improve overall quality of life. Further, emerging technologies may promote civic engagement: for instance, the Web-based platform ioby (In Our Backyards) coordinates volunteer hours, funding and in-kind contributions to promote local community projects that range from street beautification and community gardens to disaster relief and climate change awareness (ioby 2014). We invite researchers to explore the relationships between their chosen economic innovation and the level of civic engagement of its participants.

E. Behavioral Change and Social Norms: Does the innovation change social norms in the community in any way? Does it encourage other-regarding or self-regarding behaviors? If so, how does it do this?

The field of behavioral economics has identified and described a rich diversity of self-regarding and other-regarding behaviors that prevail throughout human communities (e.g. Bowles and Gintis 2013). This expanding body of work analyzes the ways in which human behavior evolves in response to material incentives, reciprocity motives, and social norms and sanctions. Future economy innovations may influence patterns of human behavior towards other-regarding behaviors in a variety of ways; they may also promote selective self-regarding behavior in disadvantaged groups seeking to claim access to basic social goods. Researchers will use any combination of descriptive material, theoretical models (e.g. game theory), and experimental results to describe the patterns of self-regarding and other-regarding behaviors that prevail within the economic innovation being studied.

3. **Equity:** Identify and quantify impacts on the following:

A. Income: Does the innovation reduce income inequality in a given region or area?

Since the 1970s, income inequality has increased dramatically in the United States. The Gini index for household monetary (pre-tax) income, a leading measure of income inequality rose from 0.403 in 1979 to 0.463 in 2007, an increase of 15% (CBO 2011). In real (inflation-adjusted) terms, while the top 5% of all earners' incomes rose 72.7% over this period, those of the bottom 20% actually fell by 7.4% (U.S. Census 2014).

Income inequality is a systemic social and economic problem, not just a status problem for poor people or a source of envy. Kawachi and Kennedy (2006) document the ways in which income and wealth inequality worsens health outcomes for nations through weakening social bonds, increasing rates of violent crime and incarceration, and overwork. Boyce (2003) demonstrates how inequalities of power lead to increased environmental degradation through distorted political decision-making that shifts the burden of pollution onto less powerful individuals and groups. Systems theorists such as Richard Rosen have suggested that inequality in income distribution may have a destabilizing effect on economies (Kelly 2012).

The researcher will thus derive quantitative metrics of income inequality relevant to the economic innovation under study. Has this innovation reduced income inequality in any meaningful way; if so, how? If the innovation takes the form of an organization or enterprise, does it limit income inequality within the organization, such as through maximum top-bottom wage ratios? If so, how does it limit this inequality and cope with pressure from outside labor markets?

B. Assets: Does the innovation reduce asset inequality in a given region or area?

Inequality in asset ownership or wealth is another contemporary issue of high importance. Wealth inequality in the United States has reached extremes not seen since the late 1920s, just before the Great Depression. In 2010, the top 1% of the country's wealth holders owned 35.4% of the total national privately held wealth, while the bottom 90% owned 23.3% of private wealth. Further, wealth is unequally distributed by race. In 2010, median wealth for African American households was $4,900, and for Hispanic/Latino households just $1,300; median wealth for white households was $97,000 (Economic Policy Institute 2012). Thomas Piketty (Piketty 2013) and Edward Wolff (Wolff 2009), perhaps the two economists who have studied inequality most deeply, both emphasize that growth of inequality of wealth is even more severe than growth of inequality of income, and that this creates huge obstacles any measures to reduce income inequality will find it very difficult to overcome. For this reason the democratization of wealth must be at the core of any strategies to address inequality of income as well as assets (e.g. Alperovitz 2011). Harvard economist Richard Freeman has written: "Equality of income obtained via greater equality in assets, rather than as an after-the-fact state redistribution, would enable us to better square the circle of market efficiency and egalitarian aspiration." (Freeman 1999, in Alperovitz 2011, 19)

The increasing focus on common property ownership (or *commons*) in both ecological and institutional economics further underpins our focus on assets (see above section on *Cooperation*). The insights of Ostrom (1990) and subsequent thinkers have revealed the viability of institutions of common property resource management, along with a series of "design principles" for their success. Baland and Platteau (2003) review the principal economic theories of the determinants of successful common property ownership, citing risk pooling, scale economies, and resource criticalness as three important factors that determine the efficiency of common property relative to private property. Meanwhile, interdisciplinary researchers such as Berkes and Folke (1998, 2008) have underscored the importance of these institutions in the stewardship of ecologically resilient ecosystems.

In keeping with these trends in both theory and practice, we ask that future economy researchers document the ways in which the economic innovation under study addresses the problem of unequal asset distribution. For instance, the researcher might report the number of disadvantaged people (e.g. low-income, low-wealth, racial/ethnic minority) that the organization provides with the opportunity to acquire assets, along with estimates of the value of those assets. He or she may also report the distribution of asset ownership within the study region and the impact of the innovation on such distribution if data are available.

C. Benefits: Does it provide broadly shared benefits or does it disproportionately benefit certain groups in society?

The recent distribution of gains from economic growth in the United States has been very unequal: the Congressional Budget Office reports that between 1979 and 2007, the after-tax monetary income by the top 1% of all earners increased by 281% while that of the bottom 20% increased by 16% (CBO 2010). In real terms, the income of the bottom 20% have decreased since 1979 (see above section *Income Inequality*).

Future economy innovations, by contrast, must distribute benefits broadly throughout the affected stakeholder population, with a focus on disadvantaged individuals and groups. For instance, cooperatives must distribute their benefits broadly to all members, as well as benefit the larger community in which the cooperative is located. Also, these benefits must be distributed equitably with respect to class, race, gender, ethnicity, and sexual orientation, and issue rewards commensurate with effort. The task of the researcher is to document whether or not the innovation succeeds in sharing benefits from its activities broadly. If the benefits accrue disproportionately to *less* advantaged groups or individuals, this process should be documented. If the benefits of the innovation flow primarily to *more* privileged groups or individuals, the researcher must highlight this result, and defend the inclusion of the innovation in this research project on other grounds.

D. Access: Does it increase access to basic social goods such as health care and education?

Millions of low-income citizens of the United States lack full access to basic social goods such as health care and adequate education. For instance, prior to the adoption of the Affordable Care Act in 2014, an estimated 47 million Americans lacked access to health insurance – about 15% of the country's population (Garfield *et al* 2014). Further, school financing through local property taxes creates endemic inequality in access to education, by ensuring that school districts located in low-income areas receive fewer resources than those in higher-income areas. Researchers must document the ways in which their chosen economic innovation increases access to basic social goods, including child care and elder care in addition to health care and education.

E. Security: Does it increase the economic security of vulnerable groups?

Economic volatility, either through normal business cycles or more serious events such as the Great Recession (2007-2009), disproportionately affects low-income and minority communities in the United States. For instance, between January 2007 and May 2011, 10.5 million American homes were foreclosed; the foreclosure rates for African American and Latino households were 1.76 and 1.71 times that of whites, respectively (Carr *et al* 2011). Food security is another major issue for U.S. households; Coleman-Jensen *et al* (2013) report that in 2012, an estimated 14.5% of all U.S. households suffered from food insecurity for at least some period of time during the year. Access to healthcare (see above section *Access*) and childcare are two other important determinants of economic security. A desirable feature of the future economy, then, is stability of livelihoods, including most importantly food and housing. Researchers will carefully document the ways in which future economy innovations provide disadvantaged households with protection against economic volatility, as well as unethical business practices such as predatory lending. Relevant metrics may include: year-on-year changes in income, increases in household food security status, rates of homeownership or other measures of housing stability, and measures of healthcare or childcare access.

4. **Environment:** Identify and quantify impacts on the following:

    A. *Pollution:* Does the innovation reduce pollution, toxics, or carbon emissions?

Reduction in pollution has been a public policy goal since the Industrial Revolution; however, as the world faces impending climate change, reduction in emissions of carbon dioxide and other greenhouse gases (e.g. methane) has risen to become the top priority for environmental policy both nationally and globally. Conventional industries externalize the costs of pollution, including toxics and greenhouse gas emissions. Recent industrial innovations seek cleaner and more efficient processes; for example, ongoing research in engineering and product design has documented carefully the possibilities for closed-loop manufacturing systems that reduce factory emissions and volume of waste (e.g. Hawken, Lovins and Lovins 1999, Braungart and McDonough 2002).

We ask researchers to document the ways in which their chosen future economy innovation reduces overall pollution, toxics, and greenhouse gas emissions. Whenever possible, we ask that these reductions be measured and reported using quantitative metrics - for example, tons of carbon emissions avoided. Researchers may also document indirect positive environmental impacts, such as net reductions in material consumption through the expansion of sharing economy platforms. While estimation of net consumption reductions will necessarily be imperfect due to the lack of data on counterfactuals, researchers are encouraged to find creative ways to address this question.

    B. *Habitat and Ecosystem Services:* Does the innovation protect/restore habitat and core ecosystem functions?

Ecosystem services are the services that nature provides to human communities. They include water regulation, flood control, climate regulation, soil fertility and many, many others (Daily 1997; TEEB 2009). Future economy innovations, to promote ecological sustainability and resilience, will account for, protect and restore ecosystems' ability to provide these services. Numerous methodologies have been developed to estimate the value of ecosystem services to human communities in monetary terms (e.g. Champ *et al* 2003); the field has spawned a rich debate about the appropriateness of such measures (e.g. Norgaard 2010). In the case of this project, it will usually be most feasible for the researcher to use the benefit transfer methodology – the careful use of the results from a study in a similar, or analogous, setting. It may also be best to use summary metrics such as the number of acres/hectares of habitat restored, number of trees planted, amount of carbon emissions avoided, et cetera.

    C. *Environmental Justice:* Does it increase disadvantaged people's access to environmental goods and services? Does it decrease their exposure to environmental harms?

The distribution of environmental assets matters to human societies as much as their absolute abundance. Evidence from numerous studies in the United States indicates severe inequalities of race, ethnicity and class in access to such basic environmental goods as clean air, clean water and open space. For instance, Morello-Frosch (2006) demonstrated that communities of color suffered from disproportionately high cancer risks through their exposure to airborne toxins, with Hispanics living in segregated neighborhoods suffering from the highest cancer risk of all

groups. A 2003 EPA study from Washington State discovered that in families with household income below $20,000, rates of childhood asthma were twice those of other families (EPA 2003, Massey 2004).

Future economy innovations, to be fully successful, must increase disadvantaged people's access to environmental goods and services, such as clean water, clean air, open space, and healthy food. Such innovations must also decrease disadvantaged populations' disproportionate exposure to environmental harms such as toxic waste, air and water pollution. Researchers must document and measure, wherever possible, the extent to which the innovation in question meets these criteria.

D. Sustainability: Is the innovation ecologically sustainable?

The term "sustainability" originated in the field of systems ecology, referring to systems' ability to endure and remain diverse and productive. In the field of human economic activity, an economic process is sustainable with respect to a natural resource if its use of that resource does not exceed that resource's regenerative capacity. The field of economics has engaged in a lively debate about the extent to which technology can substitute for natural resources, allowing for sustainable production and consumption processes without dramatic reductions in material prosperity. While "weak sustainability" theorists assume broad or even unlimited substitution possibilities between technology and natural resources, "strong sustainability" theorists assume very limited substitution possibilities, and in some cases none at all. The future economy will almost certainly require innovations that meet the strong criterion for sustainability, particularly with respect to nonrenewable natural resources.

The concept of sustainability is often used as a heuristic concept rather than one with scientific precision (Rennings 2000), since in any given case it may be difficult to gauge rigorously or accurately the regenerative capacity of a resource or the degree of substitutability between that resource and technology. Applying the concept of sustainability to the future economy thus may require additional elaboration on the part of the researcher. For instance, the researcher may calculate the percentage of the waste created by the innovation that is reused, recycled, or composted. The researcher may also measure reductions in household resource consumption that result from the economic innovation, given that humanity today uses the equivalent of 1.5 planets (and rising) to provide our current raw materials and absorb our waste (Footprint Network 2014b).

5. Resilience

Academics and practitioners alike recognize resilience as a key desirable property of communities and ecosystems (or coupled social-ecological systems) in the face of impending climate change (Ecotrust 2012, Berkes and Folke 1998, Berkes and Folke 2008). Human resilience is the capacity to shape and adapt to change (Ecotrust 2012). The Transition movement, which started in the UK and has moved to the United States, Canada, Australia, Spain, Sweden and many other countries, aims explicitly to build communities that are internally strong and cohesive, use ecological methods of resource management, cut carbon emissions by reducing fossil fuel consumption, and are thus resilient to climate change, resource scarcities and economic shocks (Transition Network 2014). Future economy innovations, if they engage in any kind of long-run planning, will likely have some degree of strategic thinking about adapting to

climate change, or building capacity to do so. Researchers are strongly encouraged to identify and describe this process of building adaptive capacity.

A. *Adaptive Capacity.* Does the innovation create capacities to anticipate and prepare for environmental change, particularly climate change?

One of the key features of a resilient system is its ability to adapt to changes occurring in its environment while retaining key functions. In the face of climate change, habitat degradation and other large-scale, potentially catastrophic environmental impacts, communities must build their capacity to anticipate, prepare for and respond to potentially dramatic changes as they occur. Future economy researchers may explain the ways in which their chosen innovation contributes to this effort.

B. *Diversity*. Does the innovation support or foster the diversification of local or regional economies?

Diversity is often cited as one of the keys to ecological and economic resilience. Resilience thinkers such as Cabell and Oelofse (2012) identify two types of diversity: functional and response. Functional diversity refers to a variety of elements or niches within a given system. A functionally diverse economy will possess a complex division of labor with multiple niches for individuals of differing abilities. Response diversity refers to the diversity of strategies available within the system to absorb and respond to change. Response-diverse economies can absorb supply or demand shocks to industries, business cycles, fluctuations in demand for particular products, or supplies of goods and raw materials. A flexible and broadly skilled labor force, a responsive social safety net, and a complementary relationship between public and private sectors may all make an economy more response-diverse. The researcher will discuss the innovation's contributions in this area to the extent appropriate and feasible.

C. *Decentralization*/ *Modularity*. Does the innovation promote economic decentralization?

Resilience thinkers such as Walker and Salt (2006), authors such as Zolli and Healy (2012) and practitioner/activists such as Hopkins (2008) consider more decentralized, *modular* forms of organization to possess a greater degree of resilience. A modular organizational form is one in which each part is relatively autonomous from the others: in the face of a shock, the pieces of the organization can decouple and function on their own. By this theory, resilient economies consist of smaller-scale economic units capable of self-sufficient functioning in the event of a systemic disruption. Future economy innovations, by enhancing bottom-up, local control over resources, may thus contribute to the process of building resilience. Researchers may find exploration of this topic fruitful in their work.

Part Three: Contributing Factors

In this section, researchers can help build greater understanding of the factors that contribute to the emergence and success of innovations, the synergies that may emerge between the innovation and other organizations or innovative practices, and the constraints, obstacles or barriers to the success and expansion of the innovations. Not every question may be applicable to every innovation.

1. **What is the nature of the organizational environment within which this innovation is embedded? (Examples: industry clusters, partnerships, supply chains, financing structures.)**

Economic innovations rarely occur in a vacuum. Innovative organizations and practices usually arise within clusters, in which information can circulate and like-minded individuals can find one another. Supply chain arrangements, such as long-term purchasing agreements, can often be conducive to the formation of future economy innovations. For instance, Cleveland's Evergreen Coops depend on anchor institutions such as hospitals and universities as large-scale, reliable business clients (Alperovitz 2011, Kelly 2012). Supportive financial arrangements, such as crowdsourcing or grant funding, may also play an important role.

We ask researchers to identify and describe the elements of the organizational environment that either support or constrain the innovation under study. For instance: the innovation may be part of a supportive industry cluster, but be constrained in its access to financing. Or financial arrangements may support the innovation, but it may currently be on a quest for technical knowledge or trained personnel.

2. **On what other organizations does it rely for financial or physical resources, expertise, or labor? (Examples: other firms/orgs, foundations, banks, consultants, universities, labor unions, community organizations, the Internet.)**

No organization is an island; all rely on other organizations of some kind for resources. For example, manufacturing firms enjoy networks of suppliers, customers, financiers, and outside consultants or contractors; in addition, their activities are shaped by government agencies and labor unions. Nonprofits benefit from strong relationships with foundations, other nonprofits with related or complementary missions, for-profit vendors or service providers, and often with university researchers. We expect future economy innovations to be no different. The Evergreen Cooperatives of Cleveland, for example, have benefited not only from purchasing agreements with anchor institutions, but also strong relationships with the Cleveland Foundation, the nonprofit Democracy Collaborative, the municipal government, and other partners (Evergreen Cooperatives 2014). Researchers will thus identify and describe the relationships that their chosen economic innovation maintains with other organizations.

3. **Were certain legal or regulatory pre-conditions necessary for this innovation to emerge? Are there legal or regulatory barriers that constrain or impede the innovation's emergence and success? Please describe.**

Economic innovations may face legal or regulatory barriers that impede their development, and benefit from subsequent regulatory changes, which may be either intentional or fortuitous. In the case of crowdfunding, the Jumpstart Our Business Startups (JOBS) Act of 2012 provided the supportive legal framework for aspiring entrepreneurs to use the Internet to raise capital, by allowing non-accredited (small) investors to place up to $1 million in capital in small-scale business ventures (Kim 2012).[1] The case of employee stock ownership plans (ESOPs) offers another example: federal tax benefits to these companies, first passed into law in 1974, encouraged the growth of employee ownership from 1,600 firms employing 248,000 worker-

[1] Portions of the JOBS Act are still pending review by the SEC at the time of this writing.

owners in 1975 to 11,000 firms employing 8.8 million worker-owners in 2003 (Alperovitz 2011, 82). The researcher will thus identify and describe any favorable legal or regulatory changes that allowed their innovation to emerge.

4. **How does interaction with its social environment (e.g. families, communities, religious organizations, neighborhood associations, voluntary associations) affect its resilience and replicability?**

We propose that a future economy innovation must be fundamentally accountable to the community in which it is located, and responsive to the needs of the families that comprise that community. The deep-level interaction necessary for this responsiveness will often entail building strong, stable relationships with local organizations and civic associations. Marjorie Kelly (2012) has coined the term *Rooted Membership* to describe the desired relationship between economic organizations and their social environments. From the cooperative movement, two of the Rochdale Principles reflect an orientation towards supportive interactions with the larger social environment: Cooperation among Cooperatives and Concern for Community (Cultivate.coop 2014). Examples of innovative institutions that exhibit these strong community interactions include the Dudley Street Neighborhood Initiative (Alperovitz 2011, 104), which actively manages community centers and owns residential property in a low-income Boston community.

The concept of Rooted Membership gives rise to a number of questions that we encourage researchers to explore. For instance: does the organization create mutually sustaining relationships with other enterprises or organizations in the same community or region? If so, what is the nature of these relationships and how do they benefit the organization itself? Does the organization support the creation of opportunities elsewhere in the community, through partnerships, purchasing agreements, long-term contracting or funding relationships?

5. **How does interaction with its political environment (e.g. elected officials, government agencies, or political parties) affect its resilience and replicability?**

In the design of the future economy, politics matters. From the successful lobbying by small-scale lobster fishermen in Maine that led to some of the most progressive resource management legislation in the United States (Acheson 2003, Kelly 2012) to the numerous "living wage" initiatives passed by cities around the country in the last decade (Pollin and Luce 2000), political structures can play a key role in nurturing – or constraining – the development of participatory economic institutions. Further, despite neoliberal economists' insistence that government is incapable of "picking winners," governments often do place capital successfully in private firms: Alperovitz (2011) identifies numerous profitable direct investments by state government agencies in private start-up companies in exchange for guarantees that those companies will remain located – and create jobs - in-state. Significantly, these investment agreements have occurred with the support of both major U.S. political parties: they transcend the traditional left-right dichotomy. We surmise that politics can and does play an important role in the development of future economy innovations, and we encourage researchers to investigate and report on this dimension in their work.

6. **What role do material incentives, social sanctions, and reciprocity motives play in establishing, maintaining or transforming the innovation?**

Economic organizations consist of complex, interrelated sets of rules and relationships, which involve incentive structures, systems of monitoring and social sanctioning, and appeals to reciprocity and altruism as well as competition and rivalry. Ostrom (1990) identifies and describes these structures as they apply to various cases of common-property resource management. The institutional structures that shape economic organizations do not remain static, but evolve over time. We encourage researchers to investigate the internal structure of innovative organizations, to understand the incentives and internal constraints that shape behavior within them.

7. **Is the innovation scalable? Are there economies or diseconomies of scale? Or can it work across a variety of scales – neighborhood, municipality, region, nation or beyond? Please elaborate.**

Scalability is a key question in social innovation as well as economics. Recent work on nonprofit management and social enterprise has emphasized scalability as a desirable property of organizations (Bradach 2010). Some organizations and institutions are able to realize efficiencies through increased scale; others are not. An organization that can effectively scale-up without losing its mission can dramatically increase its impact; a prime example is the Bangladeshi organization BRAC (Smillie 2009), which transformed itself from a small-scale disaster relief organization to the world's largest NGO with over 100,000 employees and an impressive stable of programs including microcredit, social enterprise, education, public health, women's empowerment and others.

A key concept in economics is *returns to scale* of a firm, which refers to the impact on output of a proportional change in inputs. (If a proportional change in inputs leads to a more-than-proportional change in output, the firm is said to have increasing returns to scale.) In the case of an economic innovation, a corollary question might be: what is (or would be) the impact of a proportional expansion of the innovation's activities on the innovation's total impact?

8. **Might this innovation be replicated in other social, political, or economic contexts? If so, in which other contexts would it be appropriate? If not, why not?**

Innovations that can be replicated tend to hold more transformative potential than those that are purely context-specific. A replicable innovation is one that can be transferred across social, political, economic and cultural contexts – though such innovations are rarely, if ever, universally transferrable. Researchers are encouraged to explore the question of whether their chosen innovation can be replicated in other contexts - and if so, which contexts those might be, and under what conditions. Arguing for the replicability, or conditions of replication, of an economic innovation may involve substantial reasoning based on limited empirical evidence; researchers are encouraged to look at existing literature for models or suitable analogues for comparison.

9. **Does the innovation catalyze additional economic development or further economic innovations? Does it owe its emergence to other, catalytic innovations? Please elaborate.**

To be transformative, innovations must participate in and give rise to dynamic processes of change. Such processes rest on positive feedback loops, where an initial change sets into motion

forces that lead to further change. (It is worth noting that positive feedback loops may be destructive, if the self-reinforcing change in question is a destructive one; we are seeking the kinds of transformative innovations that are constructive in nature.) Dynamic processes of change may involve further economic innovations, changes in behavior, or further development of existing economies, including adaptations of existing institutions, growth of existing, complementary industries or sectors, increased provision of basic social goods and services, or other key components of economic development. In sum, researchers are encouraged to explore the potential of their chosen economic innovations to catalyze further economic change.

10. Does the innovation displace or supplant any institutions from an earlier period in economic life (or BAU)? If so, which ones and how?

Economies exist in a process of constant change driven by technological and institutional innovation. The hugely influential work of Schumpeter (1942) described the forces of economic change as a "perennial gale of creative destruction" in which new processes, products, technologies and organizations are constantly displacing old. Long before Schumpeter, Marx (1894) had identified technological change as a key driver of capitalist development that would eventually suppress profit rates and increase unemployment. In Marx's theory, the widespread misery induced by technological innovation would lead to large-scale institutional innovation in the form of socialist revolution. Yet institutional innovation in today's economy may be occurring in a more piecemeal and gradual fashion than the revolutionary change described by Marx. We ask researchers to identify carefully any older economic institutions, including those that are currently dominant or part of "business as usual" (BAU), which may be displaced or supplanted/replaced by the innovation in question. We seek to probe the question of whether the "creative destruction" described by Schumpeter can extend to the institutional, as well as the technological, realm.

11. Does the emergence and success of this innovation entail any unintended consequences, desirable or otherwise, for communities, the environment, or local and regional economies? If so, please elaborate.

Economies are complex systems; intervention in such systems often gives rise to consequences far different from those the change agents had predicted or intended. Any innovation involves action taken under conditions of uncertainty; the full set of possible outcomes may be unknown to the agents, or even unknowable. An example of unintended consequences from recent economic history (and BAU): paying corporate executives in stock options has led to an increasing focus on short-term performance, instead of aligning incentives of managers and owners as was intended (Economist 2014). Other examples of unintended consequences include: increases in organized crime and lowered tax revenues due to Prohibition of alcohol (1920s), and increases in the murder rate from three-strikes laws (recent). Researchers should carefully identify and explain any unintended consequences that have emerged, or may emerge, from the chosen innovation.

12. What are the major vulnerabilities of this innovation? How might those vulnerabilities be addressed?

Fledgling economic innovations may be vulnerable to a host of factors: economic volatility, shifts in political winds, environmental changes, or virtually any other source of uncertainty.

Researchers will identify and describe the primary vulnerabilities that economic innovations face. Examples may include: access to financing, access to real estate or rental property, changes in market prices, availability of philanthropic grants or below-market funding, personnel turnover, competition from other organizations, or natural disasters. Researchers may summarize vulnerability into an index, such as the livelihood vulnerability index (LVI) created for fishermen by Chen *et al* (2014).

Conclusion

The framework given above is meant to spur careful analytical thinking about the structure, organizational behavior, and economic outcomes from future economy innovations. We seek a rich body of case study material that can demonstrate the impact of these innovations, as well as suggest future directions in both research and action in supporting the growth of the future economy. The persistent systemic crisis of the current economy demands no less than a refashioning of economic institutions to reflect the objectives of sufficient livelihoods, equitable distribution of resources, and resilience to environmental changes. We believe that the kind of research spurred by this framework can play an important role in this ongoing transformation of economic life.

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Appendix: Multiple Capitals

A future economy that aims to foster well-being above and beyond economic growth will necessarily recognize a greater variety of forms of wealth than the financial and physical capital emphasized in conventional economic theory. Many thinkers on the future economy explicitly recognize multiple forms of capital and advocate for their inclusion in formal accounting systems (e.g. Hawken, Lovins and Lovins 1999, Fullerton 2013).

Researchers, if they choose, may thus use the capitals framework to structure their discussion of future economy innovations. Below we provide some basic definitions of six forms of capital we recognize: natural, social, human, financial, built, and cultural.

1. *Natural Capital*

Natural capital refers to the living systems that supply human communities with vital resources and services. These systems include grasslands, savannas, estuaries, oceans, coral reefs, forests, riparian corridors, tundra, and glaciers; key resources include water, minerals, fiber, food, fuel, and even air (Hawken *et al* 1999). These systems also yield streams of often invisible but essential benefits, often called *ecosystem services*, which include carbon cycling, water cycling, flood control, temperature regulation, and many more.

Preserving and restoring natural capital is becoming increasingly urgent as it becomes scarcer: as Hawken *et al* (1999, 2) argue, "Limits to prosperity are coming to be determined by natural capital rather than industrial prowess." To maintain these benefits we must thus preserve the natural assets that produce them: forests, grasslands, wetlands, rivers, lakes, oceans, glaciers, and beyond. Future economy innovations must thus account for and preserve or restore natural capital assets in some way. We ask researchers to document and, where possible, quantify the impact of their chosen economic innovations on stocks of natural capital.

2. *Social Capital*

Social capital is generally defined as the information, trust and norms of reciprocity inhering in social networks (Woolcock 1998). Its magnitude reflects the degree of trust and reciprocity prevailing in everyday social encounters, the social norms that facilitate these attitudes and behaviors, and the social institutions and rules that uphold and stabilize these norms. Empirical economic studies have indicated that higher levels of social capital are conducive to economic prosperity (Knack and Keefer 1998). Pastor (2001) argues that social capital plays a key role in both the production of environmental inequity and the movement towards environmental justice: as inequality in power and social connections brings about unequal distribution of environmental burdens, the building of strong community organizations can help protect vulnerable groups against bearing the brunt of those burdens. There are many ways of measuring and documenting social capital; we ask that future economy researchers address this difficult concept in the best way they see fit. A future economy innovation must, at minimum, preserve and draw upon the existing stock of social capital, if not actively enhance and increase it.

3. *Human Capital*

The classic definition of human capital is: "activities that influence future real income through the imbedding of resources in people" (Becker 1962). Formal education, job training and experiential knowledge comprise three major components of human capital. We ask that future economy researchers document the ways in which their chosen economic innovation mobilizes and increases human capital. The researcher should also speak to how the innovation affects the distribution of human capital.

4. Financial Capital

Access to finance represents a key constraint for aspiring entrepreneurs and community-based businesses in the aftermath of the Great Recession. Figart (2014) studies the institutional barriers to financial inclusion that disproportionately affect households with low levels of income, wealth and human capital, who remain underserved by banks. These households are often vulnerable to predatory lending, including subprime mortgages and payday loans, which can induce vicious cycles of indebtedness and prevent the formation of wealth.

Hence, we ask researchers to document the ways in which their chosen economic innovation improves access to capital for low-income, underbanked individuals and communities. In recent years, a number of important innovations have emerged aiming to improve small-scale entrepreneurs' access to financial services. For instance, Internet-based crowdfunding platforms have allowed aspiring entrepreneurs to raise capital from numerous small-scale investors. Using data from Kickstarter from 2009-2013, Kim (2013) finds that use of crowdfunding platforms is relatively more common in smaller cities, during financial downturns, and for entrepreneurs who live geographically farther from banks; this body of empirical evidence suggests that crowdfunding alleviates capital constraints and thus democratizes access to capital. Agrawal *et al* (2013) reveal a more complicated picture of the crowdfunding capital market, in which social connections and herding behavior strongly influence the provision of startup funding. Hence, we encourage researchers to examine systematically the impact of their innovation on capital access, though we do not require the use of econometric methods.

5. Built Capital

Built capital is "the human-made infrastructure used to meet human needs" (Costanza *et al* 2012, 31). This infrastructure consists of housing, energy, transportation, and industry. Future economy innovations may seek to increase disadvantaged people's access to built capital such as housing; or they may employ innovative methods of built capital deployment such as district energy or closed-loop industrial production. We ask that future economy researchers document the process by which economic innovations construct, distribute and deploy built capital as a means of attaining their goals.

6. Cultural Capital

Cultural capital can be defined as attitudes, behaviors, tastes, or preferences which increase a person or group of people's access to various channels of social power (Bourdieu 1984, Yaish and Katz-Gerro 2010). Accents, modes of dress, forms of personal expression, levels and types of education, and tastes in art or music all act as forms of cultural capital. A person's level of cultural capital will influence her or his inclusion or exclusion in social institutions such as clubs, associations, universities, organizations or firms, which in turn affect a person's income, ability

to build wealth, and hence social status. Future economy innovations will seek to increase the cultural capital of disadvantaged individuals or groups, through promoting greater social inclusion and increasing disadvantaged people's participation in broader social and cultural institutions. Researchers are encouraged to document the ways in which their chosen economic innovation does this.