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# Market Systems Resilience

A FRAMEWORK FOR MEASUREMENT

# Market Systems Resilience

## A Framework for Measurement

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# Contents

<b>Tables and Figures</b> .....	<b>iii</b>
<b>I. Purpose</b> .....	<b>1</b>
<b>II. What Do We Mean by Market Systems?</b> .....	<b>2</b>
<b>III. Defining Market Systems Resilience</b> .....	<b>6</b>
A. Defining Resilience and Market Shocks and Stresses .....	6
B. Defining Market System Resilience Capacities .....	7
C. Structural Characteristics of Market System Resilience .....	7
D. Behavioural Characteristics of Market System Resilience .....	10
<b>IV. Theory of Change for Market System Resilience</b> .....	<b>13</b>
A. Theory of Change.....	13
B. Defining Proactive and Reactive Market System Orientations .....	14
C. The Evolution of Proactive and Reactive Market System Orientations .....	16
<b>V. Market System Resilience Assessment (MSRA) Tool</b> .....	<b>17</b>
A. Interpreting Fast and Slow Variables.....	17
B. Preliminary Guidance for Applying the MSRA Tool .....	18
C. Part One: Structural Domains.....	20
D. Part Two: Behavioral Domains .....	24
<b>VI. Annex: Guidance on Selected Indicators</b> .....	<b>28</b>

# Tables and Figures

## FIGURES

Figure 1: Interconnected Systems .....	2
Figure 2: Understanding System Behavior.....	4
Figure 3: Connectivity .....	8
Figure 4: Cooperation.....	11
Figure 5: Decision-Making.....	12
Figure 6: Market System Resilience Framework.....	13
Figure 7: Reactive-Proactive Orientations of Market Systems.....	16
Figure 8. An example showing the before and after resilience levels of a given system.....	19

## TABLES

Table 1: Market Systems Self-Organize in Response to Stimuli.....	3
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# I. Purpose

Market systems resilience is a relatively unexplored area in development. While it builds on market development, it addresses the capacity of a market system to absorb, adapt, or transform in the face of shocks and stresses. Within the broader economic, political, socio-cultural, and environmental systems in which they operate, markets are a means of allocating resources to solving system problems, such as those related to shocks and stresses. In other words, markets are an integral part of the ecosystem that resilience programming has long focused on.

This paper focuses on resilience at the systems level. USAID has defined resilience at various levels, including the individual, household, community, and systems level; however, systems-level resilience has yet to be fully defined. Defining markets as complex adaptive systems (CAS)<sup>1</sup>, this paper explores systems-level resilience, drawing from a body of research on systems thinking,<sup>2</sup> and institutional, behavioral, and evolutionary economics.<sup>3</sup> It explores an approach to strengthening market-systems-resilience capacities based on the assumption that systems are dynamic, thus what is needed is an understanding of how to facilitate the *direction* of market system change away from what is defined as reactive and toward proactive structural and behavioral characteristics. This paper defines resilience along a continuum of structural and/or behavioral characteristics, which at the *reactive* end inhibit market systems from being able to absorb, adapt, or transform in the face of shocks and stresses. At the *proactive* end of the resilience continuum, structural and behavioral characteristics enable market systems to adapt and transform toward a greater capacity for resilience. Market systems resilience is defined more broadly as the ability of the system to draw on system-level resources—such as social safety nets, early-warning systems, emergency relief systems—in the face of shocks and stresses.

This paper begins by examining markets as complex adaptive systems to better understand—at the system level as opposed to the individual, household, community or even enterprise level—how market systems respond to shocks and stresses. With this understanding, the characteristics of market systems resilience are explored and a theory of change for how to strengthen market system resilience capacities is proposed. This paper ends with a tool for assessing market system resilience.

Finally, this paper is exploratory; an early stage of what will be a longer process of testing and ground truthing of the characteristics of market systems resilience, the theory of change, and the assessment tool. Moreover, although the paper draws from academic research, it is aimed at development and humanitarian-assistance practitioners and designed to be used by field practitioners, who can over time verify and refine the theory of change and approach.

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<sup>1</sup> Holling, C. "Understanding the complexity of economic, ecological and social systems' (2001) 4: 390. <https://doi.org/10.1007/s10021-001-0101-5>

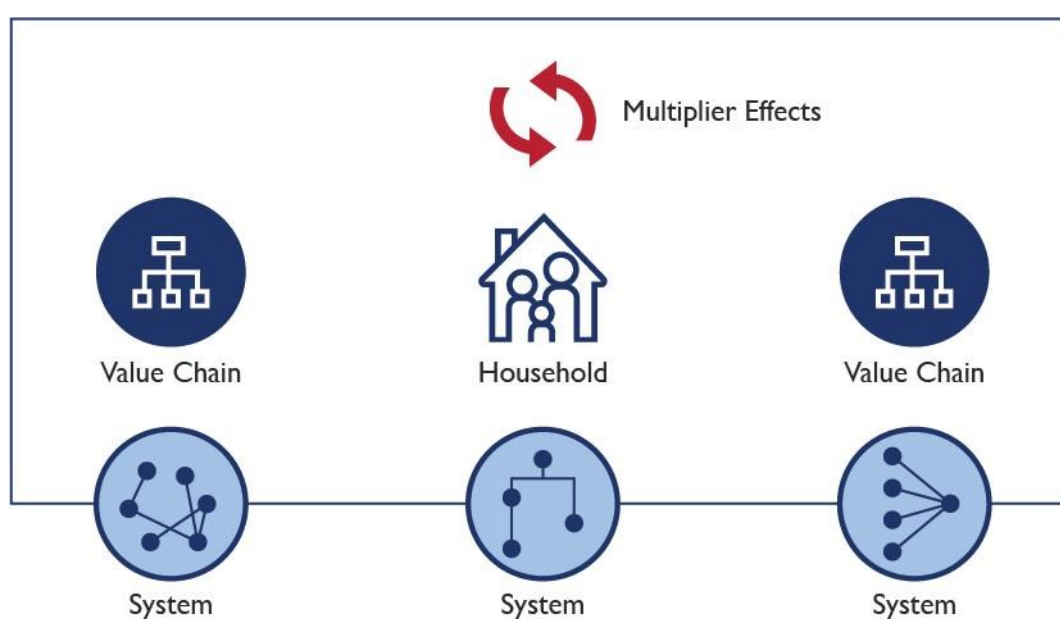
<sup>2</sup> <http://complexitylabs.io>

<sup>3</sup> Cunningham, S., Jenal, M. (2016) Rethinking systemic change: economic evolution and institution. Discussion Paper. Accessed from [www.beamexchange.org](http://www.beamexchange.org). 2016 The BEAM Exchange.

## II. What Do We Mean by Market Systems?

A *market system*<sup>4</sup> is a dynamic space—incorporating resources, roles, relationships, rules<sup>5</sup> and results—in which private and public actors collaborate, coordinate, and compete for the production, distribution, and consumption of goods and services. **Structurally**, market systems are a part of complex interconnected and nested or hierarchical systems. On the ground, we see such interconnections among value chains (e.g., the linkages and dependencies between maize, animal feed, and dairy). These value chains are, in turn, connected to and dependent upon: service markets, including warehousing, transport, cooling, and artificial insemination services; and input markets for seed, processed oilseed for feed, and technologies for cooling, processing, or planting. As shown in Figure 1, these parts of the market system are further interconnected to other systems, including the broader economic, political, socio-cultural, and physical environmental systems.<sup>6</sup> We see the hierarchical structure of systems in which individuals are linked to or part of households, which are, in turn, nested within communities, ethnic groups, and county and national-level governing systems.

Figure 1: Interconnected Systems



An important implication of such complex interconnections is that when stimuli—such as shocks or stresses—affect one part of the system, there is a response (or feedback) that ripples through the interconnected and hierarchical parts, often in unpredictable ways. While interconnections offer opportunities in that interventions at a central system node can have broad and catalyzing impact, they also present dangers in that unintended consequences can also be broad but catastrophic. Consequently, practitioners cannot assume that one part of the system can be isolated and treated separately from other parts. Rather they need to understand the complex nature of systems.

**Behaviorally**, market systems mirror *complex adaptive systems*. They are complex in that they are dynamic networks of interacting parts (these parts include those shown in Figure 1). Synergies among these interactions—that include reinforcing or balancing feedback loops—tend to generate a pattern of system organization. Feedback<sup>7</sup>—which can reflect local norms, biases, and/or knowledge—can be *reinforcing* in amplifying the effect of a stimulus, or it can be *balancing*, by countervailing the stimulus so as to allow the system to go back to its original state (pre-stimulus). Patterns emerge from the synergies and amplifying or

<sup>4</sup> [https://www.marketlinks.org/sites/marketlinks.org/files/resource/files/Market\\_Systems\\_Framework.pdf](https://www.marketlinks.org/sites/marketlinks.org/files/resource/files/Market_Systems_Framework.pdf)

<sup>5</sup> Rules refer to formal laws, regulations and statutes and to less formal norms, incentives and expectations that influence the structure of the system and the way it functions (USAID, *The 5Rs Framework in the Program Cycle*, Technical Note)

<sup>6</sup> Gorodnichenko Y., Roland G., *Understanding the Individualism-Collectivism Cleavage and Its Effects: Lessons from Cultural Psychology*, International Economic Association Series. Palgrave Macmillan, London, 2012

<sup>7</sup> Meadows, D., 'Thinking in Systems: A Primer', Chelsea Green Publishing, White River Vermont, 2008



balancing feedback loops coming from actors and sub-systems interacting not from any centralized governance or set of rules.

Researchers refer to these emergent patterns as a self-organizing process.<sup>8</sup> In other words, market systems are adaptive in that individual and collective behavior self-organizes in response to stimuli, like shocks and stresses. It is typically the norms, biases, and/or knowledge embedded in a system’s dynamic network of interactions among actors and/or system parts that leads to a particular organizational pattern. The pattern of organization in response to a shock or stress can reflect embedded systemic power dynamics that create *balancing* feedback, ensuring that the elite maintain control of resources. On the other hand, to the extent that the system can allocate resources in new and innovative ways to solve problems created by shocks and stresses, the pattern of self-organization could reflect an improved adaptation as compared to the system’s original state. For development practitioners, systems thinking offers direction for how to intervene in market systems in crisis-affected areas. While it is typically impossible to predict the response of a complex system to a shock or stress, practitioners seeking to facilitate the direction of system change need to experiment and learn about what works and what does not.<sup>9</sup>

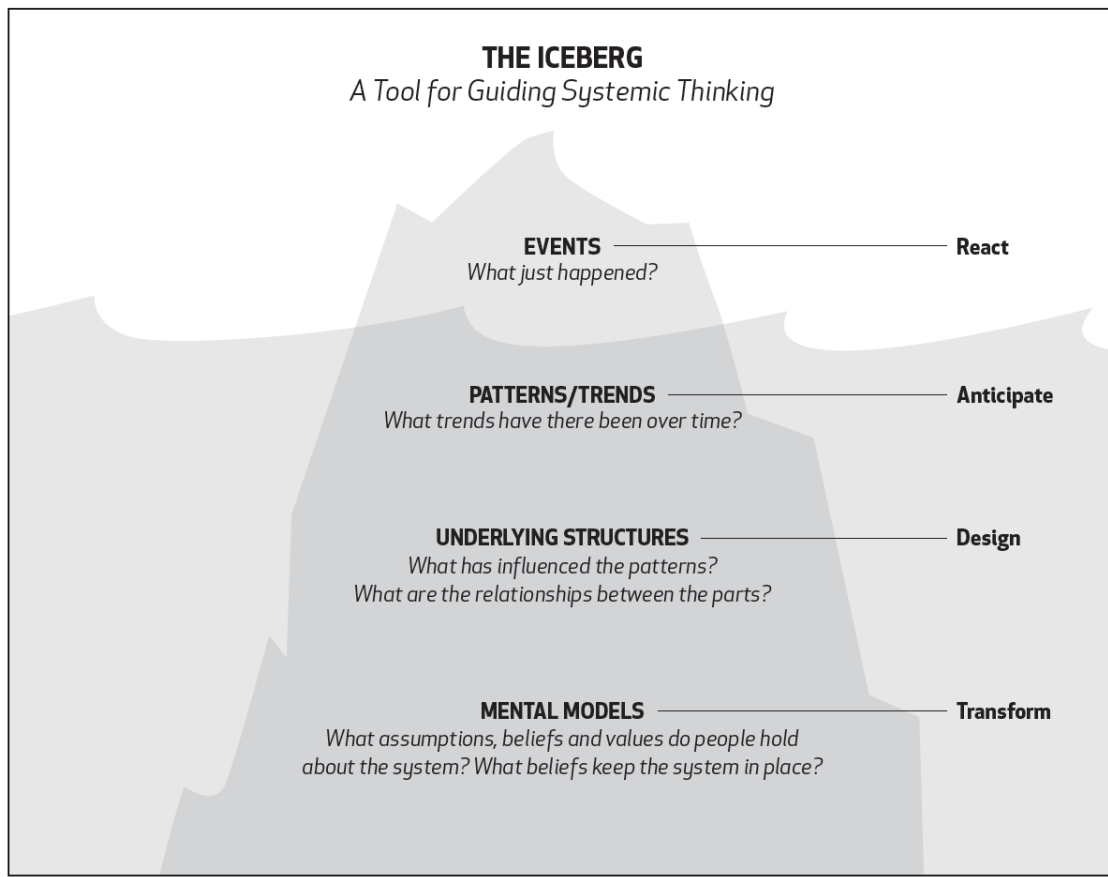
**Table 1: Market Systems Self-Organize in Response to Stimuli**

Stimulus→	System organization/ structure	Response → leading to	Self-organizing process	Resulting outcomes
Shocks, stresses and interventions	Complex interconnected and hierarchical system parts	Response - ripples thru complex interconnections	Mediated by: <b>Feedback</b> shaped by <b>biases</b> in the system <b>Fast- and slow-moving variables</b>	Degree of inclusion, competitiveness, and resilience

<sup>8</sup> See the Complexity Lab <http://complexitylabs.io>

<sup>9</sup> <https://applyingresilience.org/en/principle-3/>

**Figure 2: Understanding System Behavior**



Source: Adapted from the NW Earth Institute

In a market system, feedback is filtered through system **biases**, including social and cultural norms, beliefs, and political economy that shape the way a system self-organizes in response to a shock or stress. Thus, system **biases** influence the nature and direction (reinforcing or balancing) of feedback loops. To illustrate, gender biases can reinforce or dampen efforts to increase women’s empowerment, while biases that favor national over regional economic development can dampen efforts to remove barriers to regional trade. These biases are mental models (see Figure 2) that represent conscious or unconscious beliefs that, in turn, shape loyalties, behaviors, relationships, and other actions. While system biases can and do change over time, such changes tend to be slow and change only over a long-time period.

*Mental models*<sup>10</sup>, shown at the bottom of the iceberg in Figure 2, are defined as the assumptions, beliefs, and values which can “keep the system in place.” These mental models tend to be the most unconscious, the most difficult to change, and the most transformative when changed. Systems researchers refer to them as *slow-moving variables*; they tend to be deep-seated biases that can be slow to change and are often the underlying cause for why a system behaves as it does.<sup>11</sup> *Events*, at the top of the iceberg, are referred to as *fast-moving variables* and tend to be more visible and change more frequently. For example, transactions are a fast-moving variable in that they capture what is happening in the present. But while increases in sales can be tracked on a daily basis, one would need to track sales over time to understand how or if a system is changing.

<sup>10</sup> World Bank. 2015. *World Development Report 2015: Mind, Society, and Behavior*. Washington, DC: World Bank. doi: 10.1596/978-1-4648-0342-0. License: Creative Commons Attribution CC BY 3.0 IGO

<sup>11</sup> Bestelmeyer, B., Briske, D., Brown, J., Havstad, K., and Skaggs, R.: “Variation in ecological resilience: a fundamental concept for rangeland ecology”, January 29, 2008



Development programs tend to target and monitor fast-moving variables and to refer to slow-moving variables as assumed to be outside of our control.<sup>12</sup> Yet, changes in slow-moving variables tend to be transformative. In the context of market systems, a technological “fix” may ameliorate a problem in the near term without changing its underlying causes. In Bangladesh, for instance, Urea Deep Placement (UDP) technology was disseminated to increase rice productivity. In the short term, production increased but due to labor shortages (a slow-moving variable), these increases were not long lasting. Over time, slow variables can dampen the effects of fast variables, creating unintended outcomes.

The structural and behavioral characteristics of market systems highlights key lessons for defining market system resilience capacities.

- **Market systems are structurally complex with many interconnections**, making it difficult or impossible to isolate changes in markets from political, cultural, natural resource, and other systems or changes at the governmental level from the household level.
- **Interconnections tend to amplify feedback** resulting from shocks and stresses.
- **System-level resilience is different from the resilience of individuals, households, or communities.** Systems thinking makes clear that the emergent patterns we see in market systems are the result of a complex and dynamic network of interactions among individuals, households, communities, value chains, other interconnected systems, and so on. These interactions include feedback loops filtered through systemic biases or mental models, which in turn shape how systems respond to stimuli, such as shocks and stresses. What this means is that the complexity of the interactions, the synergies among them, and the embedded biases of the different actors make systems different from simply an amalgamation of all the parts of the system. Thus, in the short terms, individual market actors may thrive at the expense of the wider-community or market-system resilience. Conversely, actors may fail but the system could become stronger.
- **Understanding system biases (i.e. slow-moving variables) can be critical to achieving longer-term resilience and transformative change.** Fast-moving variables should not be ignored but rather understood for what they are (i.e. while they can change quickly, they can also change back quickly without meaningful change in the system).
- **Market systems are dynamic and constantly evolving.** Thus—in those contexts where the system is producing outcomes that are less than ideal for individuals, households, and communities—the objective for practitioners should be to catalyze a shift in the orientation and *direction* of the market system that aligns with better outcomes, including improved resilience capacities. This approach is different than aiming to enhance resilience solely through singular, technical improvements, such as commercial restocking or sand dams. Rather the focus for practitioners offered here is on improving how the system allocates and marshals resources in the face of shocks and stresses.
- **Facilitation needs to guide market systems in a direction that enables individuals, communities, and systems to solve their own problems and allocate resources**—through market mechanisms—to better absorb, adapt, and transform in the face of shocks and stresses over the long run.

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<sup>12</sup> Walker, B., Carpenter, S., Rockstrom, J., Crépin A., and Peterson, G.: ‘Drivers, “Slow” Variables, “Fast” Variables, Shocks, and Resilience’, *Ecology and Society*, Vol. 17, No. 3, Sep 2012

## III. Defining Market Systems Resilience

### A. Defining Resilience and Market Shocks and Stresses

#### Defining Resilience

For USAID, resilience is the ability of people, households, communities, countries, and systems to mitigate, adapt to, and recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth. Market systems practitioners might add to this definition: the ability of market systems to allocate resources, draw on system-level resources (such as social safety nets, social capital, the financial system, or government assistance), and innovate in order to solve problems in the face of shocks and stresses.

#### Resilience to What?

At the system level, resilience is defined as the capacity of the system to marshal and allocate available resources, be they public or private, community or national, to respond to a shock or stress regardless of its nature. To illustrate, over time, market systems tend to orient toward the accumulation of resources in smaller and smaller pockets in order to weather shocks and stresses, or they evolve various interconnected mechanisms to harness resources to solve, neutralize, and/or mitigate the risks associated with shocks and stresses.

Many of the shocks affecting market systems come from outside the system, further reinforcing the importance of understanding the interconnections and interdependence of different systems. To illustrate, a 2012 UNDP report on agriculture in Africa identifies three key sources of instability in agriculture that need to be addressed to build resilience: 1) conflict and political instability; 2) volatility in international food prices; and 3) demographic and environmental pressures. Shocks can also be closely interrelated as was the case in Niger, where “drought is the principal trigger for spikes in food prices and conflicts over pasture and water; it is highly correlated with some crop pests and diseases, and it aggravates mortality and morbidity due to livestock diseases.”<sup>13</sup>

#### Key Shocks to Agricultural Market Systems

- *Economic Shocks* - food price volatility, cash crop price volatility, and fuel price volatility
- *Social Shocks* - political instability, unstable or ineffective governance, and trade policies
- *Environmental Shocks* - natural resource degradation from floods, drought, erratic rainfall, soil fertility mining, etc.
- *Health Shocks* - health crises such as Ebola, HIV/AIDS or the impact of aflatoxin on nutrition and wellbeing

(Source: UNDP 2012, World Bank 2013, Radcliff and Munro n.d., FAO et al. 2012).

#### For Whom?

Ultimately, the beneficiaries of improved market system resilience are the system actors, including individuals, households, communities, and businesses.

#### Resilience to What End?

Inclusion is a key outcome of market systems resilience—not just for developmental reasons but because people are valued as a resource for solving problems and allocating resources that enables the system to better absorb, adapt, and transform in the face of shocks and stresses and to take advantage of opportunities. Especially over time, inclusion is essential for a system to engage as many people as possible as emerging threats are not knowable and systems that can access the widest set of human resources are more

<sup>13</sup> World Bank. 2013. *Agricultural Sector Risk Assessment in Niger: Moving from Crisis Response to Long-Term Risk Management*. Washington, DC.

likely to develop an effective solution to shock and stresses. To illustrate, excluding youth from market systems and from solving problems and innovating in the face of shocks and stresses is missing out on a potentially valuable source of resilience. Of course, the same could be said of excluding women, representing half of the population.

## B. Defining Market System Resilience Capacities

Researchers Christopher Barrett and Mark Conostas state that “resilience theory recognizes that there is an interrelated hierarchy of individuals, households, communities, and systems with bi-directional feedback across these levels of the organization. Resilience at each level is connected to and can be dependent on resilience at other levels.”<sup>14</sup> Similarly market systems experts recognize the structural and behavioral interconnections between system actors, institutions, markets, and other systems. Investments at the household level and cooperation or predatory behavior at the firm level affects performance, including resiliency at the market system level, as well as policies in the enabling environment can affect performance at all levels.<sup>15</sup> Finally, this paper hypothesizes that inclusiveness of the system contributes to its resilience for reasons noted above.

Drawing on systems thinking,<sup>16</sup> system resilience theory,<sup>17</sup> and market systems research,<sup>18</sup> this paper lays out a definition of market systems resilience against eight characteristics, four of which are structural and four are categorized as behavioral. Structural characteristics are defined as: connectivity, diversity, power dynamics, and rule of law.

Behavioral characteristics include: cooperation, competition, decision-making, and business strategy. **These characteristics are proposed as measures for assessing the resilience capacity of market systems, and as levers for facilitating system change from an orientation that inhibits toward one that enables market system resilience capacities.** Characteristics that inhibit resilience capacities contribute to what this paper calls “reactive” market systems, while characteristics that enable or strengthen resilience capacities contribute to “proactive” market systems. Finally, these characteristics likely play out very differently in different contexts and thus need to be contextually defined or adapted.

## C. Structural Characteristics of Market System Resilience

### Connectivity

Connectivity is defined by the way and degree to which actors, resources, or species interact across geographic, ecological, and social landscapes. In the context of market systems, connectivity includes not only the extent of connection but also the relationships<sup>19</sup> between connected actors—be they farmers or businesses linked horizontally or vertically to one another—in a system. Too many or too few connections can hamper the capacity to generate or sustain the growth of the market system.<sup>20</sup>



<sup>14</sup> Barrett, C., and Conostas, M. 2013. “Toward a Theory of Resilience for International Development Applications.” Unpublished.

<sup>15</sup> [https://www.marketlinks.org/sites/default/files/resource/files/Market\\_Systems\\_for\\_Resilience.pdf](https://www.marketlinks.org/sites/default/files/resource/files/Market_Systems_for_Resilience.pdf)

<sup>16</sup> See the Complexity Lab <http://complexitylabs.io>

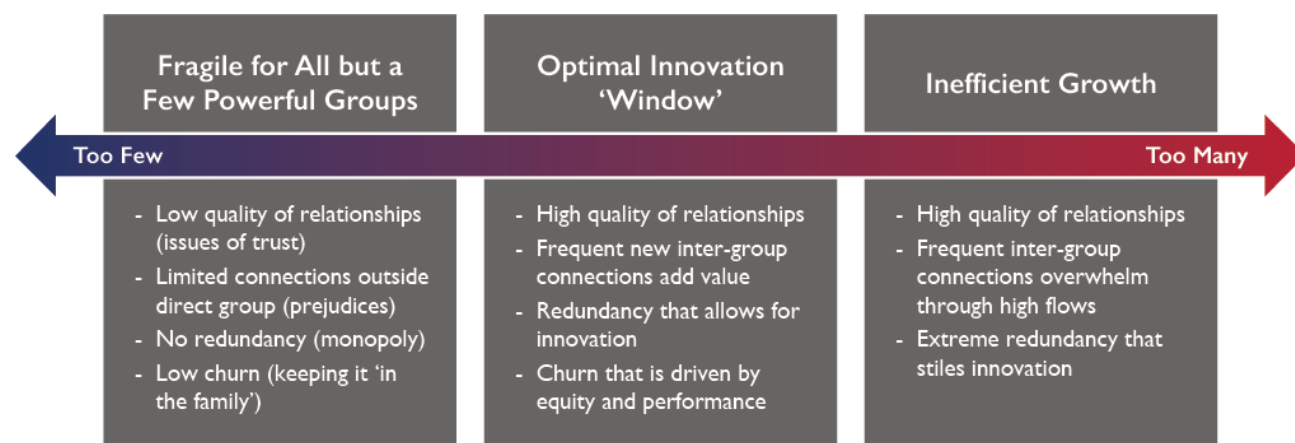
<sup>17</sup> <https://www.youtube.com/watch?v=pkHQAL9yeko&feature=youtu.be> and <https://www.youtube.com/watch?v=hlwVqdVjxpl&feature=youtu.be>

<sup>18</sup> As documented on USAID’s MarketLinks [marketlinks.org](http://marketlinks.org) and Beam Exchange [beamexchange.org](http://beamexchange.org)

<sup>19</sup> Derks, E., Field, M., (May 2016) Shifting Institutional Biases: Using Value Chain Governance to Address a Market’s Underlying Systemic Structures, <https://www.beamexchange.org>. 2016 The BEAM Exchange

Too many relationships can lead to stagnancy as resources can get overly dispersed or overloaded in ways that limit the uptake of ideas or technologies. Too few connections can lead to fragility since a single break in connection can weaken the larger system. Strategic redundancy or having more than one connection between two parts of a system is also critical to resilience. Selling to multiple markets, through relationships with more than one trader, and that have multiple sources of inputs or product are obvious examples of redundancy that bolster market resilience. As a result, when assessing connectivity, it is important to look for a *balance* or a level of connectivity that is neither overly nor under connected. This *balance* is referred to as the “window of viability.”<sup>21</sup>

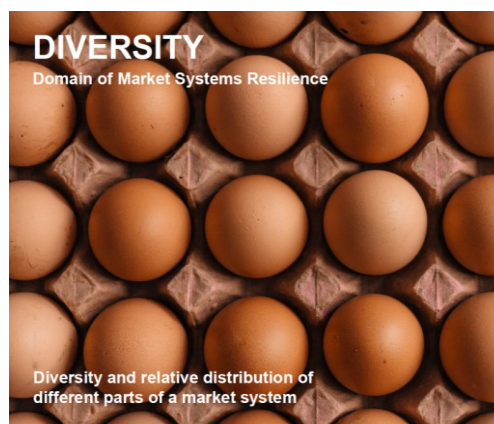
**Figure 3: Connectivity**



## Diversity

From a systems perspective, diversity has multiple dimensions, including the amount of variation in a system.<sup>22</sup> For example, in a market system, variation can be measured in terms of products, firm size, channels through which products or commodities are marketed, and/or end markets (e.g., niche, commodity, directed, or spot-market).

Diversity also entails the balance between different types (e.g., different types of products, firm sizes, marketing channels, or end markets). A lack of diversity is evidenced by a market system dominated by a single large firm that controls 80 percent of the marketed product, and a market system in which 70 percent of customers buy the same product—this is **not** balanced. Another useful dimension of diversity relates to market system composition, (i.e. how aspects of a market system are related to each other). To illustrate, the maize market system in Uganda exhibits both geographic and firm size diversity, but these variations only generate a few types of maize products (e.g., kernel and flour), demonstrating limited diversity in *composition*. The issue here is that despite the system’s variation geographically and in terms of firm size, there remains limited variation in product diversification. If the maize market system had greater diversity in composition of products (i.e. more than two), the resilience of the system would be greater because of the potential for reduced risk associated with limited diversity of products.



<sup>20</sup> Goerner, S.J., Lietaer, B., Ulanowicz, R.E., Quantifying Economic Sustainability: Implications for Free-Enterprise Theory, Policy and Practice, August 2008

<sup>21</sup> [https://www.researchgate.net/figure/The-Window-of-Viability-in-which-all-sustainable-natural-ecosystems-operate-Complex\\_fig1\\_229039856](https://www.researchgate.net/figure/The-Window-of-Viability-in-which-all-sustainable-natural-ecosystems-operate-Complex_fig1_229039856)

<sup>22</sup> Page, S.: A Chapter in *Diversity and Complexity*, 2013, Princeton University Press



From a resilience perspective, all three ways of diversifying are important as they spread risk in different ways across a system to increase its capacity to manage a shock or stress<sup>23</sup>. Without multidimensional diversification, a market system could be severely damaged by a single incident of weather, disease, or political upheaval. On the contrary, market systems that have multiple geographic production nodes, distribution or supply channels, and types of services tend to more easily adapt to a stress or shock while still maintaining some level of functionality. Similarly to connectivity, it may be impossible to define an optimal level of diversity precisely or quantitatively. We can reason, however, that too little variety means lower innovation and hence lower resilience, while too little diversity—as noted above—can concentrate market system risks.<sup>24</sup>

### Diversity and Connectivity are Inter-related

To illustrate, a typical agricultural input market system consists of multiple small businesses selling agricultural inputs. These business people often know each other and tend to be family-owned businesses. Despite the high level of connectivity between them and the community in which they are part of, there is little diversity. Most of the businesses are the same size and sell the same products to the same market. From a resilience perspective, they are overly connected and limited in terms of diversity. These characteristics tend to dampen anything novel, and as a result lead to stagnation in terms of innovation and growth. However, when connectivity is within a range that is neither overly connected nor overly isolated (called a window of viability), diversity is more likely to emerge since there are enough new connections to create novelty (in products, business models, and markets) and enough organizations to prioritize “novelty,” which adds value to the market. In the case of our input retail market, high levels of connectivity are not balanced by an organizational structure that can influence other actors to differentiate and innovate with new products, business models, or markets.

### Power Dynamics

From a systemic perspective, power dynamics are defined as the relative concentration and exercise of power in a system. Too much concentration of power can limit access to resources, while too little concentration of power can result in an inability to reach consensus on key decisions.<sup>25</sup> How power is exercised in a system is intertwined with bias, such as when one group is favored over another for political advantage. How power is exercised often aligns across a continuum from a system orientation that reinforces a concentration of power for the benefit of the few at one end to a system that reinforces diversity of power for broader and more inclusive social benefit. In market systems, typically when power is overly concentrated, the result is monopolistic or oligopolistic structures that support extractive and practices behaviors. These practices, in turn, lead to concentrations of wealth that are dependent on exclusion rather than inclusion. Such structures tend to be rigid, inflexible, and fragile—making them less resilient in the face of shocks and stresses compared to those where power and wealth are more broadly shared, and solutions and resources to address shocks are more diverse.



<sup>23</sup> Tukamuhabwa, B.J., Stevenson, M., Busby, J., & Zorzini, M., (2015) *Supply chain resilience: definition, review and theoretical foundations for further study*, International Journal of Production Research

<sup>24</sup> Cunningham, S, Jenal, M. (2016) Rethinking systemic change: economic evolution and institution. Discussion Paper. Accessed from [www.beamexchange.org](http://www.beamexchange.org). 2016 The BEAM Exchange.

<sup>25</sup> Goerner, S.J., Lietaer, B., Ulanowicz, R.E., Quantifying economic sustainability: Implications for free-enterprise theory, policy and practice, August 2008

## Rule of Law

From a systems perspective, the rule of law refers to the level or degree of equality and fairness inherent in formal and informal rules and laws. Typically, as informal norms align around the principles of equity and fairness across identity groups, formal legal institutions follow—creating what is perceived as the rule of law. Conversely, when informal norms reinforce favoritism of specific identity groups often at the expense of others, formal institutions tend to favor those connected to a particular group and to condone or amplify judicial corruption. Moreover, when the rule of law breaks down, it can turn into a stress, shock, or disruption.



### Power Dynamics and Rule of Law are Interdependent

Whether in market or political systems, the concentration of power influences the rule of law. The concentration of power by itself is not necessarily a problem and is, in fact, typically the norm. However, when there is increased concentration of power around a single identity group, there is less capacity in the system to push back when that group wields power in ways that only favor its own members. This is why monopolies and oligopolies, over time, tend to use their power to ensure their position, and limit others from gaining market power by bending the rule of law in their own favor. Systemic change is often most effective when nodes of power are wielded in ways that push against deep-seated biases. For example, lead-firm approaches often try to leverage the power of larger lead firms in order to influence system biases that lean toward extraction over value creation. In fact, it is easier to catalyze systemic change through such nodes of power. It is also true that powerful firms can accumulate power in ways that suggest that changing the system would not be in their interest. Finally, in systems where concentrated power is prevalent, there is less flexibility to risk resulting from shocks and stresses, due to the focus of efforts on controlling group-owned resources.

## D. Behavioural Characteristics of Market System Resilience

Behavioral domains (i.e. cooperation, competition, decision-making, and business strategy) provide a proxy for understanding rules (e.g., rules of law, policies, and social norms) and flows of information (e.g. feedback) within a market system. Resilience capacities are derived from how system actors and firms respond to different stimuli and the resulting behavior patterns. To illustrate, if an agricultural inputs system exhibits patterns of extractive behaviors such that firms are more focused on capturing “rent” than satisfying customers, it can be assumed that feedback between input firms and their customers are weak or non-existent. Extractive patterns of behavior also suggest that informal rules may sanction extracting resources for one’s group rather than providing value add for one’s customers, staff, and suppliers.<sup>26</sup> These behaviors contribute to a system that is less able to respond effectively in the face of shocks and stresses. Rather than encouraging innovation to address arising problems, systems oriented toward extraction focus on ‘resource capture,’ aimed to benefit a favored (often elite) group.

<sup>26</sup> Rose, D., “The Moral Foundation of Economic Behavior”, Oxford University Press; Reprint edition, February 12, 2014



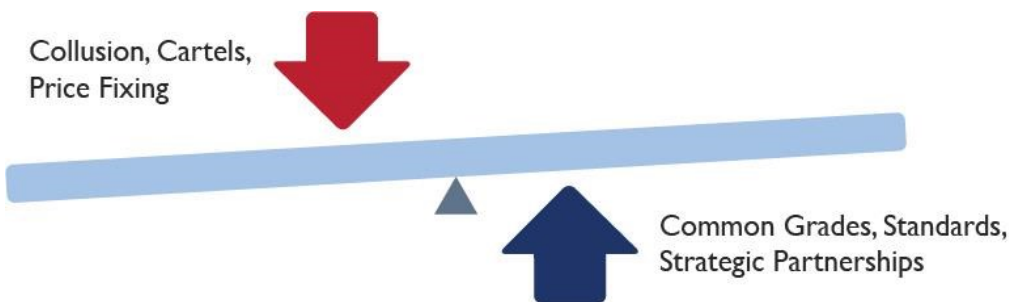
## Cooperation

Cooperation refers to market actors collaborating to achieve a common purpose or function. From a systems perspective, cooperation is neither good nor bad in-and-of-itself. Rather its contribution to system resilience capacities depends on the motivation for cooperation. Cooperation for the purpose of extracting “rent” from other actors tends to be destructive to market system performance—including resilience. Typically, this type of cooperation is called collusion or cartel behavior and includes situations where the clear intent of a group of traders agreeing to fix prices or shift grades to the detriment of a farmer is to gain unfair margins during transactions.<sup>27</sup>

On the other hand, cooperation to add value contributes positively to market system performance. Cooperation to add value can be defined in many ways: (1) firms jointly marketing or branding a product from a specific region or country, (2) firms advocating together to change a specific policy or regulation, and (3) firms agreeing on a uniform standard or grade to increase overall industry brand/efficiency. This type of collective cooperation to add value enhances resilience capacities, since the system can better share risks among collaborators and—with its strengthened performance—better manage risks, be they market, environmental, or even political risks.



**Figure 4: Cooperation**



## Competition

Competition is defined as rivalry between two or more entities. Like cooperation, competition can be negative or positive. Its contribution to system resilience capacities depends on how and why the entities are competing. When market-system firms compete for the purposes of capturing margins or resources and do so by focusing on hurting their competitors, the market system becomes increasingly extractive. The more extractive a market system is, the greater the concentration of firm-level resources employed to hurt competitors and ultimately weaken the market system.<sup>28</sup> When—on the other hand—firms compete based on value delivered to customers and focus their efforts on improving their internal capacity, the more likely the market system will evolve toward generating value for firms, customers



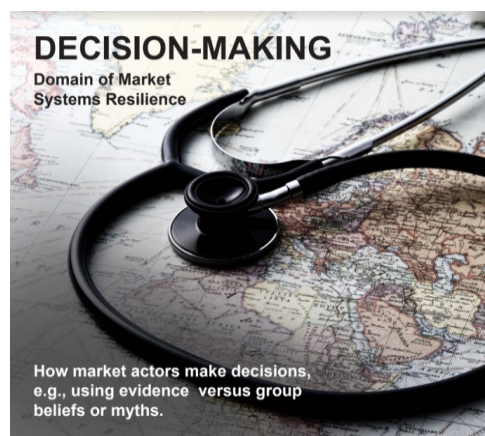
<sup>27</sup> *ibid.*

<sup>28</sup> Gorodnichenko Y., Roland G., *Understanding the Individualism-Collectivism Cleavage and Its Effects: Lessons from Cultural Psychology*, International Economic Association Series. Palgrave Macmillan, London, 2012

and the overall system alike, allowing more resources and more information exchanged that can be marshalled for addressing shocks and stresses.

## Decision-Making

As a domain for understanding market systems resilience, decision-making refers to the extent to which science or fact-based evidence is used in reaching solutions to problems.<sup>29</sup> For example, if firm owners manage a business based on consultations with family, on little or no real data on customers or markets, and on only immediate cash needs, the higher the resulting risks and chance of failure and the weaker the system. Conversely, when firm managers or owners make decisions based on information gathered and triangulated from multiple expert sources with the intent of generating value for customers, the more likely those firms will succeed. In other words, behavior patterns related to decision-making are correlated with system performance and can also lead to improved capacities to manage a whole range of shocks and stresses.<sup>30</sup>



**Figure 5: Decision-Making**



## Business Strategy

Businesses tend to evolve an orientation or bias that favors one of two objectives: (1) maximizing ‘margin capture’ through zero-sum transactions, or (2) generating value for customers during transactions as a strategy for increasing growth.<sup>31</sup> Business practices or behaviors focused on maximizing margin capture includes selling of fake or adulterated products, manipulation of weights and measures, misinforming customers, or other strategies for wielding power to gain immediate financial benefit in a transaction.

These “zero-sum” business tactics are zero-sum in that one person transacting aims to win by ensuring that the other loses. On the other hand, business practices oriented toward generating value for customers include: investments in understanding customers, in building customer relationships, in tracking customer retention and growth, in investing in staff and firm capacity, and in merit-based hiring. The underlying strategy of such business practices and/or orientation is based on the value a firm delivers to its customers and an appreciation of the



<sup>29</sup> <https://www.marketlinks.org/blog/unintended-consequences-scale>

<sup>30</sup> Derks, E., Field, M., (May 2016) Shifting institutional biases: Using value chain governance to address a market’s underlying systemic structures, <https://www.beamexchange.org>. © 2016 The BEAM Exchange

<sup>31</sup> *ibid.*

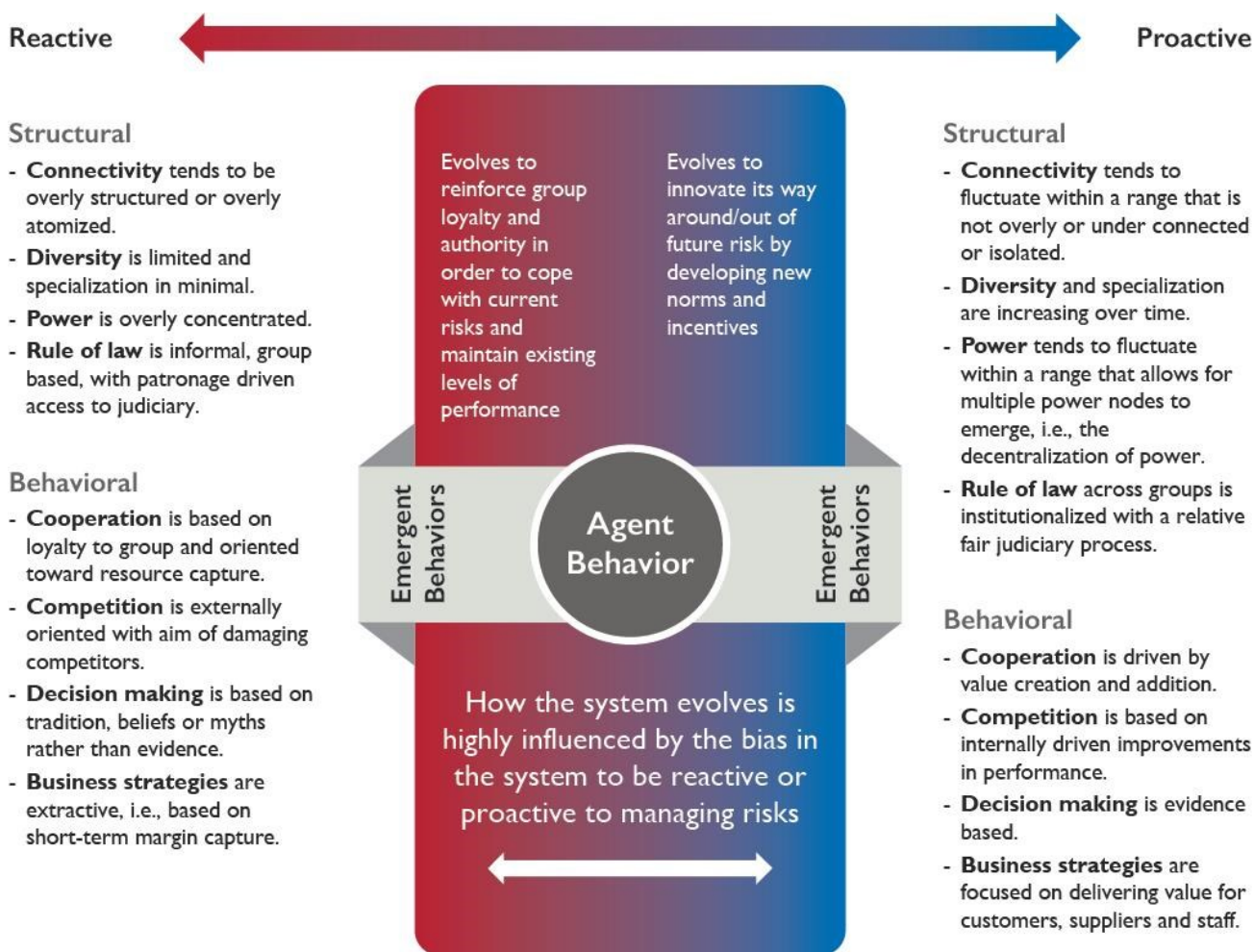
need to invest in developing firm-level human capital. Business strategies focused on creating value for customers also create collaboration and information flow (or feedback) that can better enable a market system to respond effectively and/or innovate in the face of shocks and stresses as opposed to a business strategy oriented toward extraction.

## IV. Theory of Change for Market System Resilience

### A. Theory of Change

This paper theorizes that market system resilience capacities can be defined in terms of structural and behavioral patterns related to the eight domains of: connectivity, diversity, power dynamics, rule of law, cooperation, competition, evidence-based decision-making, and business strategy. The paper further defines resilience capacities as lying along a continuum for each domain, where characteristics that enable resilience capacities are at one end and characteristics that inhibit resilience capacities lay at the other end (see Figure 6 below).

**Figure 6: Market System Resilience Framework**



This theory of change proposes that market systems—which are merit-based, oriented toward value creation, structurally diverse, interconnected based on performance, and managed using evidence—have



stronger proactive capacities for managing risks in the face of shocks and stresses than reactive market systems. Reactive market systems reinforce group loyalty and authority, extraction over value creation, and are otherwise structurally lacking in diversity, leaving them with reduced resilience capacities.<sup>32</sup> Moreover, proactive capacities enable market systems to innovate their way around or out of future risk by developing new norms and incentives, while reactive market systems tend to reinforce group loyalty and authority and resource accumulation in order to cope with shocks and stresses.

## B. Defining Proactive and Reactive Market System Orientations

**Proactive Market Systems** have a set of capacities—that can be described using the eight structural and behavioral domains—that enable the system to neutralize and/or mitigate risk through innovation and/or other problem-solving capacities. Market systems that have the capacities to innovate in response to risks can be described as follows:

- **Structurally, a proactive system self-organizes within a dynamic range of connectivity** that enables substantial diversification, novelty, sufficient nodes of influence to prioritize ideas, technologies, and other innovations that generate real value.
- **Proactive market systems evolve toward increasing levels of diversity around nodes of power**, which tend to counterbalance any node that act in ways that destabilizes the system.
- **Proactive market systems tend to generate counterbalancing power nodes** that co-evolve with a consistent rule of law, embedded throughout the whole system—creating greater fairness and transparency.
- **Behaviorally, proactive market systems exhibit a dynamic balance between too much and too little connectivity**, where too much connectivity dampens innovation or novel approaches to addressing shocks and stresses and too little connectivity prevents the organization from allocating resources toward mitigating or neutralizing risks.
- In proactive market systems, **cooperation and competition patterns favor firms that add value by means of business practices that focus on and value customers** as a way to create wealth and grow.
- **Decision-making, in proactive systems, is driven by evidence, which is used to improve the performance of a firm.** This behavior reinforces competitive and cooperative behaviors aimed at generating value for customers.

**Reactive Market Systems** are oriented toward accumulating resources within narrowly defined identity groups in order to withstand or weather risks. They often focus on improving absorptive rather than adaptive or transformative capacities. Market systems that have reactive orientations can be described as follows:

- **Structurally**, a reactive system is either overly connected (often within a narrowly defined group) or overly unconnected (isolated or unconnected groups) or a combination of both.
- In either of these cases, **diversity is low**.
- **Additionally, overly connected systems tend to overly diffuse power**, making it hard for any specific new innovation, technology, or behavior to gain momentum around an influential node/actor. Overly isolated or unconnected systems tend to translate into a situation where a single group might adopt new ideas, but the ideas do not flow across groups.

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<sup>32</sup> Gorodnichenko Y., Roland G., Understanding the Individualism-Collectivism Cleavage and Its Effects: Lessons from Cultural Psychology, International Economic Association Series. Palgrave Macmillan, London, 2012

- **Behaviorally**, a reactive system tends to reinforce structures that are overly connected or overly unconnected.
- **Reactive market systems tend to exhibit patterns of cooperation and competition** in which actors are atomized or isolated and businesses practice zero-sum tactics, resulting in win-lose outcomes.
- **Decision-making in reactive systems is driven by distrust of outsiders and trust of family and friends' network**. This orientation reinforces business strategies that favor profit and margin capture tactics as a central way to conduct business interactions and transactions.

The text boxes below illustrate assessments of market system resilience capacities, using the eight domains. Both examples are of reactive market systems.

### **Agrodealers in Peri-urban Kenya: An Example of a Reactive Stagnant System**

In peri-urban areas around Nairobi and Kisumu, there are typically many agrodealers that sell the same products and services. Business practices—including inventory management, staff hiring, financial management, branding, and marketing—are all very similar with little deviation. There are limited or no business development services available to the small- and medium-sized enterprise (SME) sector. Firm owners often know each other and know most of the other actors in the towns where they operate. The level of connectivity and lack of diversity typically go along with a lack of innovation and a level of stagnancy in terms of business practices, service offerings, and customer orientation. This overly connected system does not have enough organization to influence other actors to innovate in order to add value. Where systemic change is emerging, it tends to come from new actors that have invested in alliances with more open agrodealers. These disruptors can create nodes of innovation and market power that move the market system in a more dynamic direction that narrows the connectivity and increases diversity, while improving business practices and decision-making.

### **Zambian Cotton: An Overly Unconnected/Isolated and Fragile Reactive Market System**

The Zambian cotton industry was reactively oriented and evolved in a way consistent with an overly unconnected and isolated structure. The industry had only a few lead firms that primarily ran monopolistic geographic areas where they tightly controlled tens of thousands to hundreds of thousands outgrowers in a top-down manner. The mid-level actors in the structure were primarily connected within a vertical hierarchy that was controlled by a single firm. Also, the internal incentives were driven by the perspective of a lead firm with little input or exchange from the other actors in the system, which resulted in a lot of perceived control, but relationships that were superficial making the system structurally and behaviorally very fragile. In 2006, external shocks hit the cotton industry in the form of the very fast appreciation of the local currency. This shock resulted in a drop of farmers from around 300,000 to less than 100,000 and left only two lead firms still active the season that followed the shock. As a result, the cotton industry in Zambia has had to restructure and start almost from scratch, which has resulted in most lead firms diversifying and shifting their supply chain management practices to be more fair, transparent, and merit-based.

## C. The Evolution of Proactive and Reactive Market System Orientations

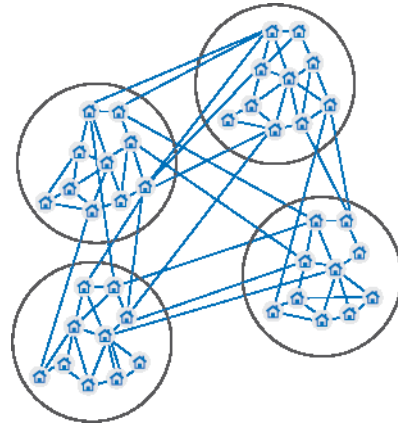
Complex market systems tend to evolve over time in a direction that aligns with their mental models or systemic biases. These biases tend to either reinforce the capacity of the system to manage risks **reactively** or **proactively**. Systemic biases are reflected in patterns of connectivity, diversity, power dynamics, rule of law, cooperation, competitiveness, decision-making, and business strategy. As a result, consistent structural patterns emerge that are different for proactive as compared to reactive market systems. In other words, systems that are able to manage risks proactively evolve in ways that generate different structural patterns than those that are reactive. Figure 7 below aims to demonstrate differences in structural patterns measured in terms of connectivity, diversity, power dynamics, and rule of law. It depicts how market systems that are overly connected or isolated tend to evolve toward a reactive orientation, while systems that have connectivity that falls within a “window of viability”<sup>33</sup> or a dynamic range of connectivity evolve toward a proactive orientation.

**Figure 7: Reactive - Proactive Orientations of Market Systems**

### PROACTIVE ORIENTATION

#### *Dynamic Range of Connectivity*

Ability to absorb, adapt, and transform in response to internal and external stimuli as a result of sufficient diversity, distribution of power, and fair rule of law.



### REACTIVE ORIENTATION

#### *Overly Connected*

Ability to absorb risk, but not adapt or transform due to a lack of diversity and diffused power, all leading to stagnancy.



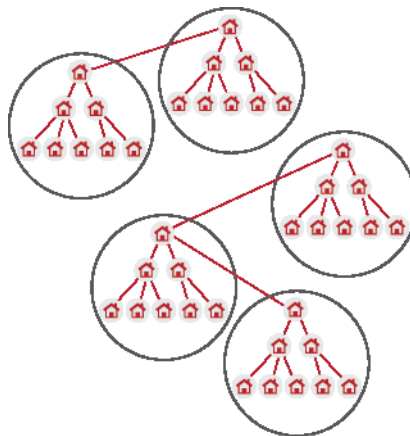
<sup>33</sup>[https://www.researchgate.net/figure/The-Window-of-Viability-in-which-all-sustainable-natural-ecosystems-operate-Complex\\_fig1\\_229039856](https://www.researchgate.net/figure/The-Window-of-Viability-in-which-all-sustainable-natural-ecosystems-operate-Complex_fig1_229039856)



## REACTIVE ORIENTATION

### Over Unconnected or Isolated

Ability to adapt, but limited ability to transform due to limited diversity, overly concentrated power dynamics, and rule of law that favors the powerful and connected. Together, these characteristics lead to a fragile and reactive orientation.



## V. Market System Resilience Assessment (MSRA) Tool

The Market System Resilience Framework (see Figure 6 above) highlights the eight domains developed to characterize resilience capacities. Each domain includes fast and slow variables, which measure market system orientation along a reactive-to-proactive continuum in response to shocks and stresses. The Market System Assessment (MSRA) tool presented below is designed to identify and test the most critical indicators of resilience capacities and outcomes within a context-specific market system. The MSRA tool is designed to benchmark a system's current orientation towards a more proactive or reactive risk management approach. Understanding a system's orientation helps resilience programmers to understand how systemic incentives shape and constrain the response of individual actors (e.g. households) to shocks and stresses. Over time, measuring change in terms of the reactive as compared to proactive orientation of a market system can be used to assess the contribution of project interventions focused on strengthening the resilience capacities of market systems.

### A. Interpreting Fast and Slow Variables<sup>34</sup>

Systemic biases—such as group loyalty, authority, and cultural norms—influence whether a system is more reactive or proactive in its approach to risk. Systemic biases create a set of guardrails that influence behavior by sending signals that reinforce certain actions or push back to modify or stop them. If an agrodealer sells counterfeit herbicides, for example, but receives neither sanction from authorities nor a decline in the number of customers, she/he will likely continue the practice. Moreover, biases are hard to read, since they are often deeply rooted and only change over longer-time horizons. Yet, they are critical to try and unpack since they are key to achieving transformational change.

To understand the current system orientation, systems thinkers track *slow variables* that describe the underlying rules, incentives, and structure of the system. Slow variables help measure whether the guardrails are changing such that a system is crossing a threshold enabling movement toward a different orientation. 'Hidden' slow moving variables, such as collective demand, shape how a 'visible' fast variable, such as prices, respond to a shock or stress.<sup>35</sup>

Fast and slow variables are relational—that is, they are interconnected and can only be defined against each other. Fast-moving variables typically change over shorter-time horizons. To illustrate, transactions are a

<sup>34</sup>Walker, B., Carpenter, S., Rockstrom, J., Crépin A., and Peterson, G.: 'Drivers, "Slow" Variables, "Fast" Variables, Shocks, and Resilience', *Ecology and Society*, Vol. 17, No. 3, Sep 2012

<sup>35</sup>Bestelmeyer, B., Briske, D., Brown, J., Havstad, K, and Skaggs, R.: "Variation in Ecological Resilience: A Fundamental Concept for Rangeland Ecology", January 29, 2008

fast-moving variable in that they capture what is happening in the present; there are many transactions happening every day. To understand whether there is a directional shift, a practitioner would have to identify emergent patterns like transactions over time. Looking at a very small set of transactions during a specific point and time provides very little information related to system functioning. Variables can also slow as they move up the scale from actor- to system-level: individual businesses may fail for a variety of reasons, but seen across an industry or entire economy, failure rates provide an important window into churn,<sup>36</sup> innovation, and redundancy<sup>37</sup> (see below). Both fast and slow variables are vital to track: a change in a fast variable tells us something is afoot; but if we do not get a handle on slow variables, then we cannot tell if a behavior is related to a systemic process (emergent patterns), or simply an outlier and a temporary disruption (response of an individual actor, disconnected to wider trends).

### When is a Variable ‘Fast’ and When is it ‘Slow?’

Distinguishing between fast and slow variables can be tricky. We have coded tools indicators as either fast, slow, or potentially fast or slow – depending on the context. Practitioners can also use these screens to determine the state of the variable:

- *Level of Control Over Other Variables* - If a variable is likely to exert a high degree of power over other variables (for example, collective demand on prices) – then it is more likely to be slow moving. It may be useful to think of fast and slow variables as synonyms for ‘effect’ and ‘cause’ indicators, respectively.
- *Ease of Being Influenced by Other Variables* - If a variable moves together with a number of others, for example prices with sales with revenue, then it is an indication that they are all ‘being controlled by an underlying system structure and are therefore ‘fast’.
- *Proximity to Mental Models* - The closer a variable is to describing beliefs, attitudes, assumptions, implicit rules, and judgements (‘mental models’ in The Iceberg, below), the more it will be a slow variable.

## B. Preliminary Guidance for Applying the MSRA Tool

The MSRA Tool is designed to be flexible to fit different country contexts—recognizing there will always be limitations on data availability, time, and resources to conduct an assessment. The Tool follows a simple three step process:

### Step 1. Select Indicators

Decide which variables to focus on, based on the indicator menu (see below). We recommend choosing no more than 3-4 indicators for fast variables and 2-3 for slow variables (total 6-8) for each domain, selected based on the criteria of:

- *Relevance* - Given the market system in question, are the indicators material and meaningful?
- *Feasibility* - Given the resources available to the assessment team, can data be collected in a timely manner?

### Step 2. Collect Data and Score Domains

First, gather data for each indicator. For the majority of indicators, data can be gleaned from secondary sources. For example, already existing indexes or national datasets can be assessed using the stock of

<sup>36</sup> [https://en.wikipedia.org/wiki/Churn\\_rate](https://en.wikipedia.org/wiki/Churn_rate)

<sup>37</sup> <https://whatis.techtarget.com/definition/redundancy>

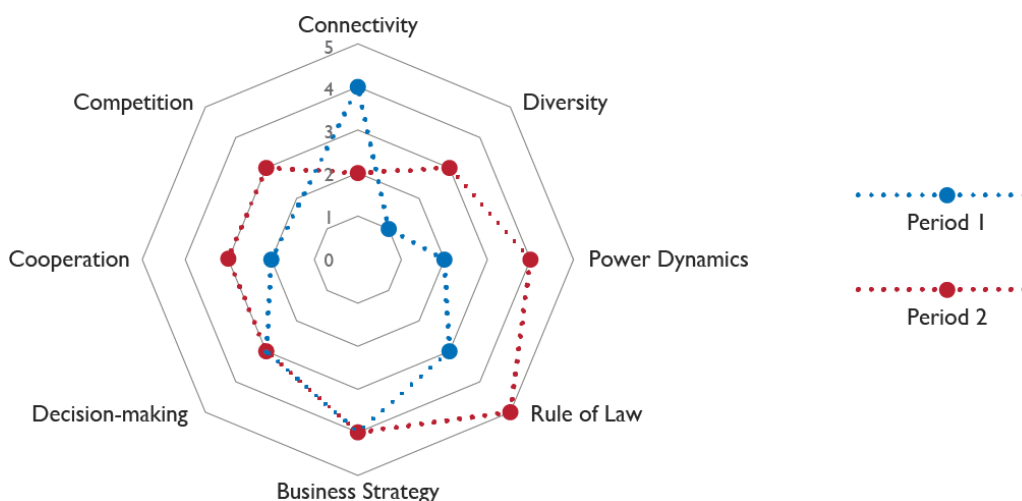
knowledge and market intelligence already available in project reports or from project teams (we call this ‘expert opinion’). For some, primary data from market players may need to be collected – which can be qualitative (key informant interviews) or quantitative. Guidance on data sources and indicator definitions is provided below.

- Compile the indicator data and make an assessment for each domain along a 4-point scale from a very reactive to very proactive orientation. This assessment should be rigorously data-informed (using the indicators), but since we are dealing with social systems and somewhat intangible biases, the final assessment score (1-4) will be a necessarily subjective judgement.
- To mitigate bias and ensure consistency over time, this exercise should be done in a group/team setting, with a quorum of three. Along with the numerical score, a short narrative can be attached to each domain to explain and justify the score.
- The first assessment should establish a baseline for the selected indicators without giving a rating. Only when the assessment is repeated should the system be rated as becoming more proactive or more reactive. The decision for how often to repeat an assessment and rating will be highly contextual. For example, for agricultural market systems that have only one crop season per year, the assessment will not need to be repeated more than once per year. In horticulture market systems that have many crop seasons in a year, assessments might be useful if conducted two or even three times per year for certain aspects of the framework.

### Step 3. Assess Systemic Resilience

Plot the score for each domain on the radar diagram, as in Figure 8.<sup>38</sup> The further away the line is from the center, the more inclusive and resilient the system is. Resilience is not binary, so the eight dimensions allow for nuance in that some elements of the market system may exhibit more inclusive behaviors while others may lag. The assessment can be repeated at intervals to show systemic resilience over time. Since market systems have to be understood in context, and the pathway towards inclusivity is neither uniform nor unidirectional, we advise that market systems are only benchmarked against their previous scores for the same system, but not against other systems or idealized (normative) notions of what constitutes an optimum level of proactive-reactive orientation. The tool is designed to measure the direction of change as well as the relative change from one time period to the next (e.g., from baseline to a chosen mid-line). Measure of change in system resilience is relative rather than absolute, which is conceptually almost impossible to measure since systems evolve and the boundaries of what constitutes absolute reactive or proactive risk management in practice is fluid.

**Figure 8. Example of Before and After Resilience Levels of a Given System**



<sup>38</sup> This framework is adapted from the GOAL dashboard reports and ARC-D Toolkit, which focuses on agent-level (community) resilience.

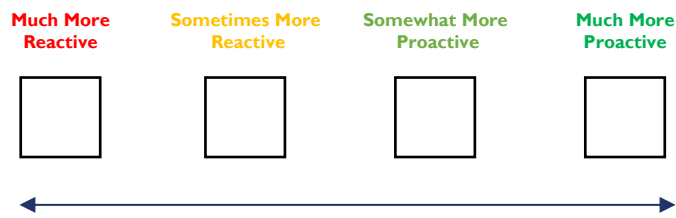
## C. Part One: Structural Domains

- **Note 1:** For indicators with a \*, see Annex on Guidance for Use.
- **Note 2:** Rate much more reactive if >50% of indicators show directional change towards the reactive domain definition.
- **Note 3:** Rate somewhat more reactive if >10<50% of indicators show directional change towards the reactive domain definition.
- **Note 4:** Rate somewhere more proactive if >10<50% of indicators show directional change towards the proactive domain definition.
- **Note 5:** Rate much more proactive if >50% of indicators show directional change towards the proactive domain definition.

Connectivity: The Logical Dependence between Components within a System			
<p><b>Reactive:</b> Connectivity related to group loyalty.</p> <ul style="list-style-type: none"> <li>– Low levels of network connections especially between different groups.</li> <li>– High barriers – perceived and real – to enter into trusted business relationships across groups.</li> </ul>	<p> <span style="color: red;">Much More Reactive</span>               <span style="color: orange;">Sometimes More Reactive</span>               <span style="color: green;">Somewhat More Proactive</span>               <span style="color: green;">Much More Proactive</span> </p>		<p><b>Proactive:</b></p> <ul style="list-style-type: none"> <li>– High levels of network connections, especially between previously unconnected nodes/networks.</li> <li>– Lower perceived barriers to enter trusted business relationships outside social/political networks.</li> <li>– Changing perceptions of other groups/stereotypes.</li> </ul>
Indicators			
Code	Indicator	State	Data Source
Number of Connections			
A1A	Number of suppliers/distributors/customers	F	Market players
Types of Connections			
	Horizontal Vertical Within/outside direct group With family/friend Redundant connections		
Strength of Connections			
A1C	Volume of transactions	F	Market players
A1E	Commercial relationship churn*	F	Market players
A1F	Availability of finance*	F	Expert opinion
A2A	Commercial relationship churn rate over time*	S	Market players
A2C	Delays in financial flows*	S	Market players
Characteristics of Network Formation			
A2B	Perceived strength of non-friends and -family network*	S	Market players
A2D	Hiring patterns*	S	Expert opinion
A2E	Perceived level of barriers to entering trusted relationships*	S	Market players
A2H	Labor patterns*	S	Expert opinion
	Based on loyalty Based on merit	S	
Mediating Factors			
	Cartels	S	
	Social norms	S	
A2G	Social mobility*	S	Expert opinion
A2F	Perception of outsiders*	S	Afrobarometer

## Diversity: The Different Ways that the Component Parts of the System can be Assembled

**Reactive:** Limited with minimal specialization.  
 – Dependent on a small number of actors/nodes that are critical to system functioning.



**Proactive:** Increasing with specialization.  
 – Component parts of the system can be assembled to perform the same function in different ways.

### Indicators

Code	Indicator	State	Data Source
<b>Variation</b>			
	Count of different sizes of businesses	F	
	Number of different categories of business risk profiles		
B1F	Redundancy rate*	F	Expert opinion
B2C	Business failure rate*	S	Secondary
B1B	Business start-up rate*	F	Secondary
<b>Diversity of Types and Kinds</b>			
B2B	Level of business model diversity*	S	Expert opinion
B1C	Diversity of types of products, services, etc. in a sector	F	Expert opinion
B1D	Level of investments value addition within key value chains (i.e. processing, increasing segmentation/specialization)	F	Expert opinion
B1E	Growth of specialized services targeting businesses within an industry	F	Expert opinion
<b>Diversity of Composition</b>			
B2A	Diversity of channels*	S	Expert opinion
	Count of different supply and distribution channels		
	Count of different marketing channels		
<b>Mediating Factors</b>			
B2F	Variation in financial services*	S	Expert opinion
B2D	Innovation Index*	S	Market players
B2E	Perception about risk-taking*	S	Expert opinion
	Fragmentation of land	S	
	Sedentarization		
	Social norms regarding gender, age, wealth, ethnicity		
	Financial flows – public investment, private investment		
	Roads/infrastructure		
	Labor markets (labor shortages or surplus)		
	Variety of ways businesses are structurally related (slow)		
	Number of geographic production nodes (slow)		

## Power Dynamics: The Concentration and Exercise of Power in a System

**Reactive:** Highly concentrated and wielded to reinforce a concentration of power for the benefit of a few.

**Much More Reactive**



**Sometimes More Reactive**



**Somewhat More Proactive**



**Much More Proactive**



**Proactive:** Multiple power nodes and power wielded for wider, more broad-based social benefit.

### Indicators

Code	Indicator	State	Data Source
<b>Concentration of Power</b>			
C1B	Extent of stakeholder participation in development and review of policies	F	Expert opinion
C2I	Counter-balancing forces*	S	Expert opinion
C1G	Existence/reach of special interest groups*	F	Expert opinion
C1E	Influence of investigative journalism/media	F	Expert opinion
C1D	Existence of independent advocacy services	F	Expert opinion
C2D	Market structure*	S	Expert opinion
<b>Exercise of Power</b>			
C1A	Perceived levels of corruption*	F	Afrobarometer
C1C	Government investment in formal social safety net programs	F	Secondary sources
C2E	Level of pricing control*	S	Expert opinion
C1F	Government investment in road, utilities, health, education	F	Government records
<b>Inequality</b>			
C2B	Income inequality	S	Gini coefficient
C2C	Geographic concentration of wealth*	S	Expert opinion
<b>Inclusiveness</b>			
C2A	Government orientation*	S	Expert opinion
C2H	Liberal Democracy Index*	S	V-Dem Institute
<b>Mediating Factors</b>			
C1F	Health of civil society*	S	CIVICUS



## Rule of Law: Equality Before the Law

**Reactive:** Informal and group-based with patronage-driven access to judiciary.

– Flow/structure of corruption that supports group control and patronage.

**Much More Reactive**



**Sometimes More Reactive**



**Somewhat More Proactive**



**Much More Proactive**



**Proactive:** Across-group institutionalized access with relatively fair judiciary.

– Greater alignment between formal rules and informal norms. Push back through media, civil society, market and other systems that uncovers corruption.

### Indicators

Code	Indicator	State	Data Source
<b>Regulations and Standards</b>			
D1H	Existence of uniform grades and standards	F	Expert opinion
D2D	World Justice Project Rule of Law Index	S	Open Government Pillar, World Justice Project
D1D	Awareness of laws and regulations	F	Market players
<b>Supporting Services</b>			
D1E	Viability of advocacy services	F	Expert opinion
D1F	Investment in research on judiciary	F	Secondary sources
D1G	Access to legal services	F	Expert opinion
D2B	Press Freedom Index	S	Reporters without Borders
<b>Practices</b>			
D1I	Adherence to agreements	F	Market players
D1A	Level of corruption in regulatory interactions with market actors	F	Doing Business Index
D1C	Cost/fairness of formal judiciary interactions with market actors	F	Market players
D1B	Government hiring practices	F	Expert opinion
D2A	Diagonal Accountability Index	S	V-Dem
D2C	Corruption Perceptions Index	S	Transparency International
<b>Mediating Factors</b>			
D2F	Orientation to equity – an index around consumer protection, number, management orientation, funding, etc.	S	
D2G	System legitimacy (perception of courts, obeying the law)	S	Afrobarometer
D2H	Level of horizontal accountability (perception of checks and balances on Executive branch)	S	Afrobarometer
D2E	Media business orientation (audience driven as opposed to owners-interests driven)	S	Expert opinion

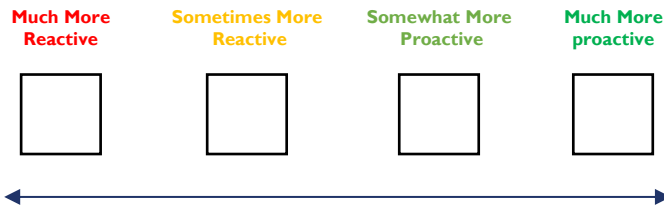
## D. Part Two: Behavioral Domains

Cooperation: How Agents Work Together for Mutual Benefit																																																																																			
<p><b>Reactive:</b> Response to capture resources.</p> <ul style="list-style-type: none"> <li>– Cooperation driven by need to compete using zero-sum tactics (i.e., cartels, unfair advantage, political favoritism, etc.). The outcome tends to be extractive leading to a goal of a win-lose outcome in transactions.</li> </ul>	<p><b>Much More Reactive</b>      <b>Sometimes More Reactive</b>      <b>Somewhat More Proactive</b>      <b>Much More Proactive</b></p>		<p><b>Proactive:</b> Response adds value.</p> <ul style="list-style-type: none"> <li>– Cooperation driven by the need to grow or create value.</li> <li>– Cooperation would follow patterns of response to joint threats and opportunities.</li> <li>– Cooperation would be focused on performance improvement – internalized to the firms and organizations cooperating.</li> </ul>																																																																																
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## Competition: How Agents Establish Superiority over Others Who are Trying to Do the Same

**Reactive:**  
Externalized to damage competitors.

- Driven by a zero-sum goal to gain market share by hurting the competitor. Innovation is depressed because the cost/risks are too high. Competition focuses on transactions, so little is invested in alliances.



**Proactive:** Response is internalized to improve own performance.

- Internalization drives innovation around customer value and staff/organizational capacity.

### Indicators

Code	Indicator	State	Data Source
<b>Zero Sum Competition</b>			
F1F	Growth in alternative disputes services	F	Market player
F1D	Number and nature of transactional disputes	F	Market player
F2F	Proportion of disputes fairly resolved	S	Secondary
F1G	Incidence of zero-sum tactics in spot markets	F	Expert opinion
F2G	Availability of alternative disputes resolution options – mediation, arbitration, etc.	S	Expert opinion
F1E	Perceptions of outcomes from disputes	F	Market player
F2E	Extent of labor violations	S	Expert opinion
F2C	Level of protectionism	S	Expert opinion
F2A	Perceptions of being cheated (perceptions of trust by consumers)	S	Market player
F1H	Transactional fraud (rates of adulterated, fake, mis-information practices, etc.)	F	Market player
F2D	Perceived subsidy capture	S	Expert opinion
<b>Value Creating Competition</b>			
F1B	Number of new market entrants	F	Market player
F1C	Co-investment along value chains	F	Expert opinion
F1I	Existence of / level of adherence to trading standards	F	Expert opinion
F1A	Number of repeat customers	F	Market player
F2B	Collective response pattern to competitive response (pace of innovation versus lack of innovation)	S	Expert opinion

## Evidence-Based Decision-Making: How Agents Make Operational Decisions

**Reactive:** Group beliefs/myths drive decision-making.

**Much More Reactive**



**Sometimes More Reactive**



**Somewhat More Proactive**



**Much More Proactive**



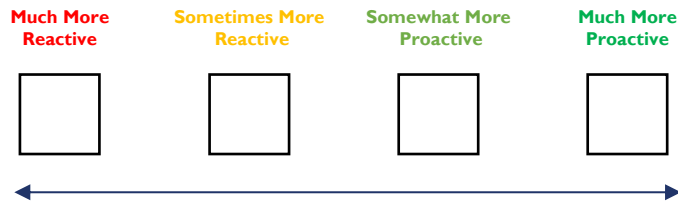
**Proactive:** Evidence drives decision-making.

### Indicators

Code	Indicator	State	Data Source
<b>Investments in Evidence to Support Decision-Making</b>			
H1	Level of spend on market research	F	Industry association
H1	Investments in information gathering and analysis at agent/firm level	F	Market player
H1	Presence of industry journals, networks and meetings	F	Expert opinion
H1	Number of alliances between academia and businesses	F	Market player
H1	Extent to which companies' segment customers by socio-economic demographic	F	Market player
<b>Use of Evidence in Decision-Making</b>			
H1	Use of digital CRM systems	F	Market player
H2A	Depth of market for evidence-based services	S	Expert opinion
H2E	Influence of science on social and market systems	S	Expert opinion
<b>Information Flows</b>			
H2B	Collective response patterns to information flows – customer feedback response	S	Expert opinion
H2F	Level of academic connectivity to private sector	S	Expert opinion
H2C	Patterns of information flows	S	System Health Indicator
<b>Quality of Evidence</b>			
H2G	Level of academic orientation to value addition and away from political patronage	S	Expert opinion
H2H	Management of content by media based on journalism ethics	S	Expert opinion
H2I	Maturity of ICT B2B market (targeting SMEs)	S	Expert opinion

## Business Strategy: How Agents Achieve their Goals

**Reactive:** Strong bias for short term cash extraction in businesses; internal operating decisions. Preference for friends and family in business and 100% ownership.



**Proactive:** likely to have strong growth orientation, formal financial management systems, merit-based employment decisions, and focus on customer value/relationships.

### Indicators

Code	Indicator	State	Data Source
<b>Growth Orientation</b>			
E1A	YTD R&D expenditure	F	Market player
E1B	YTD capital expenditure	F	Market player
E1G	Investment in data gathering an analysis	F	Market player
E1J	Reinvestment rates by owner	F	Market player
E2C	Capital expenditure (5/10 yr. trend)	S	Government / associations
E2D	R&D expenditure (5/10 yr. trend)	S	Government / associations
E2G	Maintenance-growth ratio	S	System Health Indicator
<b>Formalization</b>			
E1I	Existence of specialized hiring services	F	Expert opinion
E2J	Maturity of public equity markets	S	Expert opinion
E1E	Level of SME informality	F	Government
E1F	Level of sophistication in branding	F	Expert opinion
<b>Customer Orientation</b>			
E1H	Investment in customer service	F	Market player
E2A	Customer loyalty trends (NPS)	S	Market player
E2K	Maturity of market for stakeholder/customer centric solutions	S	Expert opinion
<b>Employee Orientation</b>			
E2H	Unemployment rate	S	Government
E2B	Job satisfaction level	S	Market player
E1C	Level of investment in staff/organizational capacity development and retention	F	Market player
E1D	Staff turnover	F	Market player
E2E	Coverage of merit-based performance incentives	S	Expert opinion
<b>Mediating Factors</b>			
	Access to finance		
	Access to premises, utilities, other services		
	Tax system		
	Labor markets		



## VI. Annex: Guidance on Selected Indicators

Code	Notes
<b>AIE</b>	<p><b>Commercial Relationships Churn.</b> This quantitative indicator captures the degree to which a given firm maintains long-term business relationships versus cycling through suppliers and buyers. It is measured as an average of:</p> <ol style="list-style-type: none"> <li>1. Change in suppliers (last 6 months), expressed as a percentage of new suppliers vs total suppliers by headcount.</li> <li>2. Change in buyers (last 6 months), expressed as a percentage of new suppliers vs total suppliers by headcount.</li> </ol> <p>For more details see <a href="https://www.marketlinks.org/library/practical-tools-measuring-system-health">https://www.marketlinks.org/library/practical-tools-measuring-system-health</a></p>
<b>AIF</b>	<p><b>Availability of Finance.</b> This qualitative indicator is a rating scale designed to capture the maturity of business finance networks, both for growth and maintenance capital. For a given group of market actors, based on their market intelligence and tacit knowledge, projects should make an assessment on a 1-4 scale:</p> <ol style="list-style-type: none"> <li>1. Financing limited to informal family and friends' networks</li> <li>2. Financing at community/formalized peer-to-peer level, such as Village Savings and Loans</li> <li>3. Financing accessible microfinance services</li> <li>4. Financing fully formalized and available through a range of intermediaries and supply-side actors (e.g. microfinance, commercial banks)</li> </ol>
<b>A2A</b>	<p><b>Commercial Relationships Churn Over Time.</b> Similar to AIE, only applied at an aggregate sector/industry level, over time, to understand the degree to which firms in a given market system maintain long-term business relationships. A composite made of 6 key questions:</p> <ol style="list-style-type: none"> <li>1. How many different suppliers did you buy product from in the past 3 months?</li> <li>2. How many of these suppliers (see No. 1) were your suppliers 6 months ago?</li> <li>3. How many of these suppliers (see No. 1) were your suppliers 12 months ago?</li> <li>4. How many different buyers did you sell products to in the past 3 months?</li> <li>5. How many of these buyers (see No. 4) were your buyers 6 months ago?</li> <li>6. How many of these buyers (see No. 4) were your buyers 12 months ago?</li> </ol> <p>For more details see <a href="https://www.marketlinks.org/library/practical-tools-measuring-system-health">https://www.marketlinks.org/library/practical-tools-measuring-system-health</a></p>
<b>A2B</b>	<p><b>Perceived Strength of Non-Friends and - Family Network.</b> Subjective key informant assessment of the role that 'closed' family and friend groups versus 'open' groups operating based on merit/interest. Gathered by asking a sample of market actors to respond along a standard 5-point Likert scale (from strongly agree to strongly disagree): e.g., the majority of my business relationships (e.g. suppliers, partnerships) are with businesses owned by family and friends.</p>
<b>A2C</b>	<p><b>Delays in Financial Flows.</b> This quantitative indicator captures the presence and duration of delays in the movement of money around a market system, as a proxy for connectivity. Measured by taking an average of responses from market players on the following questions:</p> <ol style="list-style-type: none"> <li>1. On average, how many days after delivery do you pay your suppliers?</li> <li>2. On average, how many days after delivery do your buyers pay you?</li> </ol> <p>For more details see <a href="https://www.marketlinks.org/library/practical-tools-measuring-system-health">https://www.marketlinks.org/library/practical-tools-measuring-system-health</a></p>
<b>A2D</b>	<p><b>Hiring Patterns.</b> This qualitative indicator uses a rating scale to measure system connectivity in meeting labor demand; based on whether employers look outside of their immediate known environment to fill vacancies. Using their existing market knowledge, projects should make an assessment on a 1-5 scale:</p> <ol style="list-style-type: none"> <li>1. Vacancies filled mainly by referrals from other workers or business owners</li> <li>2. Vacancies filled mainly by word of mouth within communities</li> <li>3. Vacancies filled by intermediaries (labor brokers)</li> <li>4. Vacancies filled mainly by publicizing (flyer, newspaper)</li> <li>5. Vacancies filled by professional services (headhunting, recruitment firms)</li> </ol> <p>If projects do not possess the pre-requisite knowledge, they can instead ask a sample of market actors – this should be embedded as part of regular interactions rather than conducting a formal survey or focus group. Responses can be broken down by categories of skilled / unskilled labor, and by supervisors / workers.</p>
<b>A2E</b>	<p><b>Perceived Level of Barriers to Entering Trusted Relationships.</b> This indicator is based on a series of responses to binary yes / no questions – and is designed to capture both stated preferences and revealed actions of market players in forming long-term commercial relationships. Ask a sample of market players:</p>

Code	Notes
	<ul style="list-style-type: none"> <li>• In the last 6 months, I have transacted with businesses outside of my ethnic group (Y/N)</li> <li>• In the last 6 months, I have transacted with businesses outside of my religious group (Y/N)</li> <li>• In the last 6 months, I have transacted with businesses outside of community/village (Y/N)</li> <li>• I find it more difficult to build trusted relationships outside of my ethnic group (Y/N)</li> <li>• I find it more difficult to build trusted relationships outside of my religious group (Y/N)</li> <li>• I find it more difficult to build trusted relationships outside of my community(Y/N)</li> </ul> <p>This can be turned into an index by assigning values to yes (1) and no (0) and averaging responses, which can be tracked over time. To ensure data is comparable and there is no sampling bias, this should be administered via panel (same respondents in repeated surveys).</p>
A2F	<p><b>Perception of Outsiders.</b> This national-level indicator captures public attitudes on whether people would like having people from a different group as their neighbor. It uses the results of Afrobarometer participation-civil engagement surveys:</p> <ul style="list-style-type: none"> <li>• Neighbors: people of different religion</li> <li>• Neighbors: people of different ethnicity</li> </ul> <p>Data can be viewed online for most countries here: <a href="http://afrobarometer.org/online-data-analysis/analyse-online">http://afrobarometer.org/online-data-analysis/analyse-online</a></p>
A2G	<p><b>Social Mobility.</b> This national-level indicator is designed to capture reductions in norms that hinder social mobility. There are no cost-effective ways to collect direct data on social mobility, and datasets that may already exist often require extensive analysis to draw conclusions. Therefore, this is a quick proxy based on a project's opinion of the economic and social context. For each area, projects should assess the directionality of whether levels of discrimination/stigma are increasing, staying the same, or decreasing by:</p> <ul style="list-style-type: none"> <li>• Religion</li> <li>• Ethnicity</li> <li>• Political affiliation</li> <li>• Sex (male/female)</li> <li>• Sexual Orientation and Gender Identity</li> <li>• Immigrants</li> <li>• Geography (e.g. particular regions)</li> </ul>
A2H	<p><b>Labor Patterns.</b> This qualitative indicator uses a rating scale to measure system connectivity in labor supply, based on whether employees are willing to travel to find work opportunities. Using their existing market knowledge, projects should conduct an assessment on a 1-5 scale:</p> <ol style="list-style-type: none"> <li>1. People stay in a region within current economic activity (e.g. farming).</li> <li>2. People stay in a region even if they shift out of current economic activity.</li> <li>3. People move between regions for current economic activity.</li> <li>4. People move between regions to shift out of current economic activity.</li> <li>5. People move internationally to pursue new or different economic activities.</li> </ol>
A2I	<p><b>Debt-to-Equity Ratio.</b> This common financial ratio indicates the relative proportion of shareholders' equity and debt used to finance a company. At a systems level, it can indicate the extent to which business growth is financed through servicing short-term debt versus long-term equity/ownership interests, which are more likely to be relationship-based. Detailed financial data will most likely not be available, so projects should make a qualitative assessment whether industry growth is being led by:</p> <ul style="list-style-type: none"> <li>• Shareholder's own funds (i.e. the money that business owners put in)</li> <li>• Unsecured loans (microcredit, overdraft, other moneylenders)</li> <li>• Secured loans (against property etc., through larger and more formal financial institutions)</li> <li>• Buy-outs (companies merging and becoming part of larger groups)</li> <li>• Equity (offering ownership stake to outside investors)</li> </ul>

Code	Notes
<b>B1A</b>	<p><b>M&amp;A Rate.</b> This indicator captures the rate at which two companies become one, and hence reduce the stock of businesses in a sector (discounting new entrants). Measured by:</p> <ul style="list-style-type: none"> <li>• Number of business mergers in the past 12 months where two companies integrate their operations, management, stock, and everything else.</li> <li>• Number of business acquisitions in the past 12 months (where one company buys another).</li> </ul> <p>This should be captured through the number of deals, rather than deal value, which may be more difficult to obtain.</p>
<b>B1B</b>	<p><b>Business Start-up Rate.</b> This indicator measures the number of new businesses being formally registered with the relevant national authority in a given period of time, usually the last 12 months.</p>
<b>B1F</b>	<p><b>Redundancy Rate.</b> This indicator captures the number of actors fulfilling the same market function – which can be used to identify critical nodes where business failure would impact on the functioning of the entire system. While precise numbers may be difficult to obtain, projects should make an assessment whether there are extremely limited (just one or two), very limited (less than 10), limited (less than 30), numerous (more than 30), very numerous (more than 100) companies engaged at each value chain stage:</p> <ul style="list-style-type: none"> <li>• Raw Materials / Sourcing</li> <li>• Collection and Aggregation</li> <li>• Primary and Secondary Processing</li> <li>• Retail and Distribution</li> <li>• Export</li> </ul>
<b>B2A</b>	<p><b>Variation in Channels.</b> This indicator captures the level of variation in the chain of businesses or intermediaries through which a good or service passes until it reaches the end customer. For a given product or service category (such as inputs), project should examine the overall market structure across firms of their use of wholesalers, retailers, distributors etc. to assess whether there is:</p> <ul style="list-style-type: none"> <li>• No Variation (all firms rely on single channel to push products/services)</li> <li>• Limited Variation (across firms there are two or three channels, such as direct sales and mobile agents)</li> <li>• Some Variation (firms use a variety of different wholesales and last-mile delivery models, such as fixed retail shops, mobile agents and direct sales)</li> <li>• Extensive Variation (fully diversified distribution chain)</li> </ul>
<b>B2B</b>	<p><b>Level of Business Model Diversity.</b> This indicator captures the different types of business models at play in the system. There are a number of different types of business models, such as manufacturer, aggregator, franchisee, platform-based etc. As these will depend on the sector in question, projects should make a subjective assessment of whether diversity is:</p> <ul style="list-style-type: none"> <li>• High</li> <li>• Medium</li> <li>• Low</li> </ul>
<b>B2C</b>	<p><b>Business Failure Rate.</b> The business failure rate measures the proportion of new businesses that fail (cease operations and/or are in administration) within their first one, three, five and sometimes ten years. As time goes on, the failure rate is expected to increase. In the United States, for example, only 30% of businesses fail during the first two years of being open, but 66% fail in the first 10 years. Where available, this data should be obtained from national bodies (e.g. Ministries of), business associations and private institutions (e.g. banks). It may often only be available nationally, rather than sectorally.</p>
<b>B2D</b>	<p><b>Innovation Index.</b> This indicator captures incremental innovation in existing business models. It uses an index to rank innovation by survey on a scale of 0 (no innovation reported) to 1 (at least 5 innovations reported), then averages surveys across firms in the same market system to come up with an overall ranking. The survey asks questions about 13 aspects of business models, divided into four categories: product/service innovations, process innovations, marketing innovations, and organizational innovations.</p> <p>For the full methodology, see Tool 6: <a href="https://www.marketlinks.org/library/practical-tools-measuring-system-health">https://www.marketlinks.org/library/practical-tools-measuring-system-health</a></p>
<b>B2E</b>	<p><b>Perceptions about Risk-Taking.</b> This indicator is a subjective measure of the risk appetite in the market system, which is a key determinant of innovation-driven diversity. Projects should leverage their existing knowledge of the market and interactions with players to assess whether for informed risk-taking – the willingness to experiment with new ways of working, services/products, channels, and strategies – is seen as:</p>

Code	Notes
	<ul style="list-style-type: none"> <li>• Very Undesirable</li> <li>• Undesirable</li> <li>• Neutral</li> <li>• Desirable</li> <li>• Very Desirable</li> </ul>
<b>B2F</b>	<p><b>Variation in Financial Services.</b> This indicator measures the maturity of financial services which are derived primarily from a foundation tied to formalized risk-sharing. Projects should assess the availability of mechanisms to absorb the impact of risk in a given system:</p> <ul style="list-style-type: none"> <li>• Not at all – risk borne by one party only, with consequences of failure fully absorbed by the same party.</li> <li>• Low – risk borne by one party only, with informal mechanisms to share consequences of failure, such as family/community safety nets.</li> <li>• High – risk borne by one party, but with formal financial (e.g. insurance), products tailored to particular market context so that party can hedge their risk exposure</li> <li>• Medium – risk shared through outside capital (equity or debt), tied to formal risk-mitigation products</li> </ul>
<b>CIA</b>	<p><b>Perceived Levels of Corruption.</b> This national-level indicator measures citizens' opinions of whether, over the past year, the level of corruption in the country has increased, decreased or stayed the same. Country-level data can be viewed under Corruption / Level of Corruption here: <a href="http://afrobarometer.org/online-data-analysis/analyse-online">http://afrobarometer.org/online-data-analysis/analyse-online</a></p>
<b>CIG</b>	<p><b>Existence / Reach of Special Interest Groups.</b> This indicator measures the influence of special interest groups that seek gains for their members with little or no concerns for the overall effect of their goals on society, even when the gains to their group are much smaller than the total social cost. Projects should assess the existence and influence of such groups as:</p> <ol style="list-style-type: none"> <li>1. Not a problem – such groups either do not exist or are marginal.</li> <li>2. Minor problem – special interest groups, such as issue-based business or religious advocacy exert limited influence on political decision-making.</li> <li>3. Moderate problem – active and powerful lobbying groups work to protect their own power/status.</li> <li>4. Serious problem – special interest groups actively reinforce the status quo and prevent greater innovation/inclusivity/participation across the whole system.</li> </ol>
<b>C2A</b>	<p><b>Government Orientation.</b> This indicator measures the current orientation of the ruling political party (or parties, if in coalition) from patronage to value add. Projects should assess the role of patronage in political decision-making (appointments and policy) along a 5-point scale as:</p> <ol style="list-style-type: none"> <li>1. Not at all influential</li> <li>2. Slightly influential</li> <li>3. Somewhat influential</li> <li>4. Very influential</li> <li>5. Extremely influential</li> </ol>
<b>C2C</b>	<p><b>Geographic Concentration of Wealth.</b> This indicator measures whether wealth is centralized or decentralized in the country. Projects may be able to consult national data (such as GDP per region), but in the absence of this they can make an assessment based on whether wealth is either:</p> <ul style="list-style-type: none"> <li>• Concentrated in a few locations (e.g. capital, areas of resource extraction); or</li> <li>• Distributed across numerous geographic areas.</li> </ul>
<b>C2D</b>	<p><b>Market Structure.</b> This indicator assesses the economic power structure in a given system. Projects should assess whether the market is in a state of:</p> <ul style="list-style-type: none"> <li>• Perfect competition: a large number of small firms competing against each other, where no firm has significant market power (i.e. ability to influence prices).</li> <li>• Monopolistic competition: a large number of small firms selling similar but only slightly differentiated products.</li> <li>• Oligopoly: dominated by a small number of firms.</li> <li>• Monopoly: a single firm controls the market.</li> </ul>

Code	Notes
C2E	<p><b>Level of Pricing Control.</b> This indicator measures the level of government involvement in shaping prices for specific goods. These typically take the form of a price ceiling or floor, and are often applied to staples, essential items and products national, such as major exports/imports. As pricing controls can be fluid, and emerge in response to sudden shocks, this measure should assess the historical frequency of the use of price controls as:</p> <ol style="list-style-type: none"> <li>1. Never</li> <li>2. Almost Never</li> <li>3. Occasionally / Sometimes</li> <li>4. Almost Every Time</li> <li>5. Every Time</li> </ol>
C1F	<p><b>Civil Society Health.</b> This national-level indicator measures the strength of common interests and collective activity within a system. It is measured using the CIVICUS Monitor index, which rates a country's civic space rating as closed, repressed, obstructed, narrowed, or open. Country-specific ratings can be found here: <a href="https://www.civicus.org/index.php/what-we-do/innovate/civicus-monitor">https://www.civicus.org/index.php/what-we-do/innovate/civicus-monitor</a></p>
C2G	<p><b>Economic Gender Gap Component.</b> This national-level indicator captures the gender difference in economic participation and opportunity. It is a World Economic Forum measure, comprised of five components: (1) wage equality between women and men for similar work; (2) the ratio of female estimated earned income to male income; (3) the ratio of female labor force participation to male participation; (4) the ratio of female legislators, senior officials, and managers to male counterparts; and (5) the ratio of female professional and technical workers to male counterparts. Country ranking can be found here: <a href="https://www.weforum.org/reports/the-global-gender-gap-report-2017">https://www.weforum.org/reports/the-global-gender-gap-report-2017</a></p> <p><i>It is also a Self-Reliance Metric used by USAID.</i></p>
C2H	<p><b>Liberal Democracy Index.</b> This indicator measures freedom of expression, freedom of association, suffrage, elections, rule of law, judicial constraints on the executive branch, and legislative constraints on the executive branch. It is compiled by the V-Dem institute and data can be found: <a href="https://www.v-dem.net/en/data/data-version-8/">https://www.v-dem.net/en/data/data-version-8/</a></p> <p><i>It is also a Self-Reliance Metric used by USAID</i></p>
C2I	<p><b>Counter-Balancing Forces.</b> This indicator measures the extent to which private sector, media and civil society act as counter balance to government. Project should assess whether these groups can input into, and exert influence on, government decision-making against the following 5-point scale:</p> <ol style="list-style-type: none"> <li>1. Not at All Priority</li> <li>2. Low Priority</li> <li>3. Somewhat a Priority</li> <li>4. Moderate Priority</li> <li>5. High Priority</li> </ol>