



## National And Global Resilience Of The Economy

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	<p style="text-align: center;"><b>Abstract</b></p> <p>With the increase of natural and human human-caused disasters and their widespread consequences, the need for societies and governments to become more resilient is felt more than ever. This has caused resilience to be considered as the biggest national challenge of the current era. This article was compiled with the aim of examining the theoretical foundations and existing research literature on national resilience. In this article, discussion of the terminology and genealogy of resilience have been examined, then individual, organizational, social and national resilience</p> <p>The main goal of this article is to provide methodology for the analysis and measurment of the index of vulnerability and resilience in Iran's economy. Economic resilience is the cultivated ability of the economy to improve or dampen the effects of negative shocks the economy might experience.</p> <p><b>Keywords: Vulnerability, Resilience, national resilience, Disasters, social resilience, Resilient economy, Disasters.</b></p>
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### Introduction

Studies show that heartbreaking events such as war, natural disasters or economic crises undoubtedly have harmful psychological outcomes (Vartolomei L, et al., 2022). In addition, the effects of stressful events are cumulative<sup>2</sup>. This means that the effect of each stressful event will result in more intense effects with each added occurrence. In recent years, the concept of resilience has often been used to discuss people's ability to withstand stress Kimhi 2016<sup>1</sup>.

The course of studies on the concept of resilience shows that resilience was initially studied at the individual and family level, following which the concept was extended to organizational issues in the form of organizational resilience and sociological issues in the form of social resilience.

In a contemporary setting we see this concept after the 2008 financial crisis on a larger level, that is, Howel's government in 2012 and McAslan's national security in 2010; Flynn, 2011 and it is proposed in the form of the concept of national resilience<sup>3</sup>, and it is the subject of articles by Chasdi 2014, Omand 2005 and numerous scientific conferences.

Internationally, research on resilience has been pursued rapidly since the events of 9/11 and accelerated by the aftermath<sup>4</sup> of the terrorist attacks in Madrid (November 2003), London (July 2005), Mumbai, Oslo, and Etovia<sup>5</sup>. Walker et al, 2014: 409

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## Text

### Theoretical

One of the ways to reduce disasters facing a nation and society is to invest in improving national resilience. Resilience refers to the ability to prepare and plan to endure<sup>1</sup>, recover, or adapt more successfully to potential adverse events. Improved resilience allows for better disaster prediction and better planning to reduce the damage caused by these disasters. (Disaster Resilience, 2012:1) Resilience is the capacity to withstand shocks and return to the first state in a functional form or at least sufficient resilience to prevent systems from breaking or even collapsing. Therefore, resilience is undoubtedly a public good<sup>2</sup>. (Omand 2005:15)

The concept of national resilience emerged by acknowledging that a national power is not evaluated solely based on military capacity, but also through political-psychological aspects. Resilience at the national level examines the process of adapting to and absorbing adversity or change imposed by an external threat.

According to Friedland<sup>3</sup>, at the national level, resilience is the ability of a society to endure adversities and crises in various fields through the implementation of changes and adaptations without harming the core values of society and institutions.

However, at the national level resilience can be viewed in two ways. On the one hand, national resilience refers to the society's ability to withstand adversity while maintaining its values and institutions, while on the other hand, resilience may be reflected in reorganizing and adapting through new and innovative methods, such as behavioral adaptations that help fill the gap between the existing pressure<sup>4</sup> and the needs and activities of society.

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### Resilience is based on two different perspectives:

1. Static view: The static school of thought considers resilience as the ability to revive and renew strength, where a person recovers after a stressful and unexpected situation. This view of resilience is similar to the ability of a material to recover its original shape and properties after being stretched.

2. Dynamic view: The dynamic school of thought, which has an attitude extending beyond simple recovery after shocks, instead emphasizes continuous adaptation to change, and the creation of new opportunities. Therefore, according to these schools, the ability of organizational resilience is something that not only solves present problems, but also forms the organization's ability to take action to effectively reconfigure<sup>1</sup> and increase organizational resources. Resilience, in itself, is a gradual and developmental concept that has been formed over time, where experiences and mutual learning gradually provide the ability to manage problems and stress. Richtner & Löfsten. 2014: 138

According to the dynamic perspective, resilience is the capacity to continuously overcome challenges and identify new opportunities. In discussing organizational resilience, Hall and colleagues<sup>2</sup> acknowledge that it is important to distinguish resilience from flexibility, agility, and adaptability<sup>3</sup>; Although these three concepts have common elements with resilience, they are different concepts (Richtner & Löfsten, 2014:138).

Examining the economy of different countries shows that some, in addition to being vulnerable, have large GDPs. Bergilio (2004) explains this issue in terms of the combination of vulnerability and resilience and provides a methodological approach to it.

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1.Traumatic event<sup>1</sup>

2.cumulative

3.National Resiliency

4.subsequent terrorist attacks

5.Mumbai, Oslo, and Utoya

1.Absorb<sup>2</sup>

2.Public good

3.Friedland

4.Current strain

**Under this approach, economic vulnerability is divided into two categories:**

1. Permanent inherent vulnerability (such as small domestic markets)
2. Semi-permanent vulnerability (characteristics resulting from government policies)

On the other hand, resilience refers to policies that empower the country's economy against the negative effects of external shocks.

Bergilio calls this type of resistance "cultivated resistance". Kordina (2004)<sup>1</sup> shows the application of this concept resulting from the formation of capital and savings in the economy can be an important source of resistance against critical conditions.

Based on this, Cardina divided the countries into four groups, which are:

1. The best mode (low inherent vulnerability and high resilience)
  2. The worst case (high inherent vulnerability and low resilience)
  3. Self-made (high inherent vulnerability and high resilience): Self-made countries (self-reliant) are those that have a lot of inherent vulnerability, but by adopting appropriate policies against this vulnerability, they become empowered and by strengthening their economy, they take steps to reduce inherent vulnerability and the risk of facing these shocks.
  4. Prodigal child (low inherent vulnerability and low resilience): Prodigal child countries are those that have less inherent vulnerability, but their policies expose them to the negative effects of external shocks. The people of these countries think they were born into good families and therefore, squander their wealth.
- The best-case scenario is used for countries that do not have much inherent vulnerability and, at the same time, use resilience policies. The worst-case scenario also includes to countries that have inherent high vulnerability and their policies increase the negative impact of vulnerability (Bergilio, Cordina, Farrugia and Vella, 2009)<sup>2</sup>.

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The four mentioned scenarios are shown in **Table 1**. The axes measure the inherent economic vulnerability and cultivated resistance (resilience policies) of the country, respectively. In this chart, the best economic situation can be seen in the second quarter. Small vulnerable states that have implemented resilience policies are in the top quartile.

There are several points about this issue:

The method of defining vulnerability in terms of inherent characteristics and resilience in terms of policies is subject to change. This method has many advantages. The first advantage of the vulnerability index is that it points to permanent or semi-permanent features in the country that are practically uncontrollable and cannot be attributed to the incompetence of the government. Therefore, this index is constant over time. Hence, one cannot accuse a country with high vulnerability of using misleading policy approaches. The second indicator: economic resilience means that the country can change its vulnerability (make it worse). The advantage of this index is that it allows measurement of resilience in accordance with economic policies. The third indicator: Shows the combination of two risk indicators and negative shocks (caused by the inherent vulnerability characteristics of the economy) that have been neutralized by resistance policies in different areas. Basically, permanent and semi-permanent intrinsic vulnerability refers to the fact that countries that are more exposed to external damages and shocks should not be expected to move vertically along the quadrants of **Table 1**. In fact, by changing economic policies, these countries will move between the categories of the worst case and self-made or the best case and prodigal child. By distinguishing between intrinsic economic vulnerability and economic resilience, it becomes possible to construct a framework for evaluating and influencing external shocks. **Figure 1** shows that the risk of economic destruction due to external shocks is affected by two factors:

1.Reconfigure<sup>3</sup>

2.Leginick-Hall et al

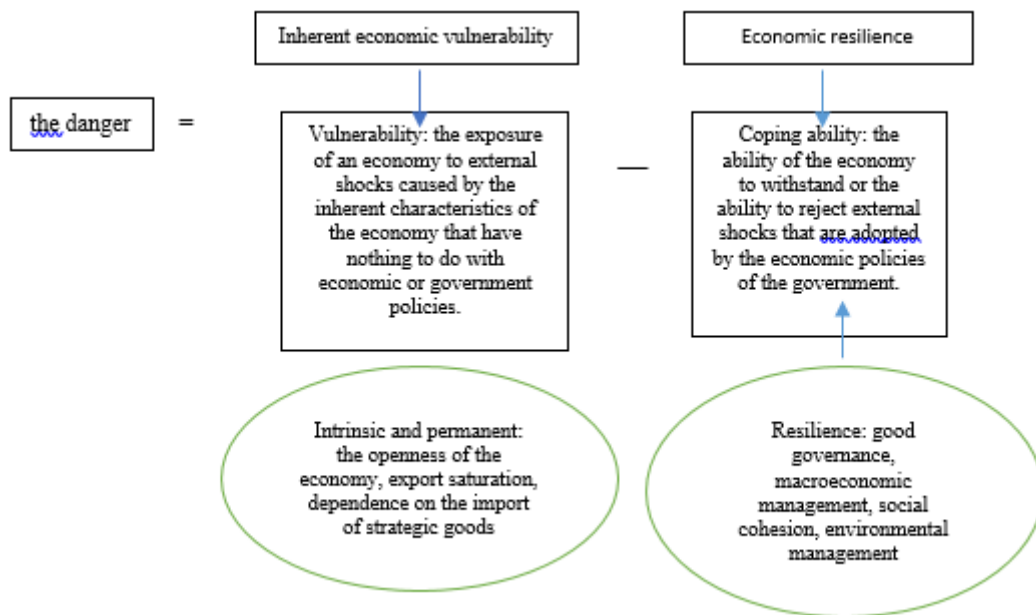
3. Flexibility, agility, and adaptability

1. Cordina, G. (2004). Economic vulnerability and economic growth: Some results from a neo-classical growth <sup>4</sup> modelling approach. *Journal of Economic Development*, 29(2), 21-39.

2.Briguglio, L., Cordina, G., Farrugia, N., & Vella, S. (2009). Economic vulnerability and resilience: Concepts and measurements. *Oxford Development Studies*, 37(3), 229-47. [DOI:10.1080/13600810903089893]

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the inherent vulnerability of the country's economy, and the ability of the economy to face external shocks (resilience). The difference between the two will determine the risk level of the country.



**Figure 1.** The risk of destroying the economy

**Table 1.** Scenarios of economic resilience vulnerability index

scenarios		
self-made	worst case	Economic vulnerability index
best case	prodigal son	
resilience index		Indicator

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## Resilience levels

Some researches consider resilience as having multiple levels such as: individual, social, institutional, national, regional and global.

### 1. Individual resilience

An approach to resilience, with the assumption that security and threats are evaluated by people who experience security or insecurity in an individual behavior, holds that resilience should be considered an individual state<sup>1</sup> or trait<sup>2</sup>. Resilience is defined by Bonanno<sup>3</sup> as a person's ability to maintain a stable level of performance after traumatic events and as a trajectory of healthy<sup>4</sup> performance over time.

### 2. Organizational resilience

The concept of organizational resilience was first used to describe the need for organizations to respond to a rapidly changing business environment. Hamel and Walkings<sup>5</sup> (2003) showed tremendous foresight in their article<sup>6</sup> by predicting the global economic crisis that later led to the collapse of several traditional American companies<sup>7</sup>.

They stated that successful organizations were those that understood the dynamic nature of their business (competitors, technology, accessibility and financial value, taxation, government policy, and the needs and expectations of their customers) and had the ability and willingness to adapt to sudden and large changes in the environment. Considering this, Hamel and Walkings stated that successful organizations should evolve like resilient ecosystems that are constantly adapting to the external environment. McAslan, 2010: 6.

In recent years, the concept of organizational resilience has shifted its focus from private sector organizations to public organizations, which have redefined the scope and scope of the threats they face. Seville and colleagues point out that a resilient organization is one that can achieve its main goals in the event of a disaster. This not only means reducing the size and frequency of crises (vulnerability), but also means improving the ability and speed of the organization in management.

<sup>5</sup> 1. Computational research

### 3. Resilience of Society

The word "social resilience"<sup>1</sup> has been coined and has been commonly used in the last decade. Natural and unnatural disasters clearly show that the management of large-scale disasters is one of the major challenges of all types of public, private and non-governmental organizations, McLellan 2012. Cassiapo and his colleagues<sup>2</sup>

(2011) have defined community resilience as the capacity to cultivate, deal<sup>3</sup> with and maintain positive relationships, and sustain and recover from life stressors and social isolation.

**According to their point of view, social resilience<sup>4</sup> is inherently multi-level and includes three characteristics:**

- A. The ways in which people communicate with each other (such as agreement, trustworthiness)<sup>5</sup>
- B. Interpersonal resources and capacities (such as sharing, listening carefully)<sup>6</sup>
- C. Increasing resources and capacities (such as group identity, centrality)<sup>7</sup> (Kimhi, 2014: 3)

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### 4. National Resilience

With the increase of natural and human-caused disasters and their widespread consequences, the need for societies and governments to become more resilient is felt more than ever. This has caused resilience to be considered as the biggest national challenge of the present era. The destructive consequences of recent international sanctions on Iran's economy show the low resilience of the national economy in the face of external shocks. Consequently, Iran's government has struggled with political, economic and social challenges and crises more than other countries and will continue to face these in the future. Among the topics of resilience, national resilience has been less researched.

In its report entitled, "How to increase national resilience against disasters by looking at the characteristics of a resilient nation in 2030", the American National Research Association describes the characteristics of a resilient nation as follows: In 2030, the nation, from individuals to the highest level of government have adopted a resilient culture. Information about the risks and vulnerability of individuals and groups is transparent and easily accessible to everyone. Strategic investments<sup>9</sup> and policy decisions, including investment and decisions regarding preparedness, reduction and recovery, which have reduced natural damages, costs and socio-economic consequences of disasters.

Community coalitions<sup>1</sup> have been widely organized, identified and supported to provide essential services before and after disasters. Disaster recovery is rapid and involves private capital financing. Per capita federal spending on disaster response has been declining for a decade.

### 5. Assessment of National Resilience

In the researcher's investigations, regarding the assessment of national resilience, there is no reliable and widely used criterion in the research literature. However, here are some tools for measuring and evaluating national resilience:

The World Economic Forum has provided two surveys as a framework for qualitative assessment of national resilience:

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1.Social Resilience<sup>6</sup>

2.Cacioppo et al

3.Engage in

4. Social

5.Agreeableness, trustworthiness

6.Sharing, attentive listening

7.Group identity, centrality

1.Social Resilience

2.Cacioppo et al

3.Engage in

4. Social

5.Agreeableness, trustworthiness

6.Sharing, attentive listening

7.Group identity, centrality

8.National Research Council

9.Proactive investments

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Global Risk Perception Survey:<sup>2</sup> This survey measures experts' perceptions of their countries' resilience to global risks.

Survey question: If you experience this risk in your country, what is your country's ability to adapt to these impacts?

Respondents: They evaluated their country's ability to deal with five types of global risks (economic, environmental, geopolitical, social and technological).

Executive survey:<sup>3</sup> This survey asked a question to assess the effectiveness of the government in risk management in 2012<sup>7</sup>

Survey question: "How do you rate the effectiveness of your country's government's overall risk management in terms of monitoring, preparedness for response, and mitigation of major global risks (for example, financial crisis, natural disasters, climate change, pandemics, etc.) ?" (Ghiathund and others, 2013)

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## Conclusion

Environmental, political, economic, social and security challenges and risks have made resilience one of the important issues at the governance level. The reviews of the author of the present article on international research in this field indicates that the attention of researchers towards the study of resilience as a key indicator is increasing.

On the other hand, the studies show that resilience takes on a special color and context according to the type of risks that the countries were facing. In the sense that in the countries that were facing the issue of terrorism and security risks, resilience studies and researches were mostly focused on national resilience in the dimension of national security.

One of the most important dimensions of resistance economy is the resilience of the national economy against internal and external changes, risks and threats on the way to progress and achievement of the country's goals. Resilience is a new concept that means the ability to deal with shocks and the flexibility of the economy. Governments have paid attention to the resilience index because it looks for risks that have threatened many countries and diverted them from their growth path or destroyed their development achievements.

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Thank God that the speakers remain in praising Him and the enumerators do not know how to count His blessings and the strivers are not able to convey His truth. And peace and blessings be upon Muhammad and his pure family, the pure ones, those who owe our existence to them; And a continuous curse on their enemies until the Day of Resurrection...

## Conflict of interest:


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1. Proactive investments<sup>7</sup>

2. Global Risk Perception Survey

3. The Executive Opinion Survey



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