



PROSPERITY INDEX

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Defining United States Prosperity

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Introduction

Our mission at the Legatum Institute is to build a movement of people committed to the transformation of society and the creation of pathways from poverty to prosperity. Prosperity is far more than wealth; it is when all people have the opportunity and freedom to thrive. Prosperity is underpinned by an inclusive society, with a strong social contract that protects the fundamental liberties and security of every individual. It is driven by an open economy that harnesses ideas and talent to create sustainable pathways out of poverty. And it is built by empowered people, who contribute and play their part in creating a society that promotes wellbeing.

This report defines what we mean by U.S. prosperity, drawing upon knowledge we at the Institute have built up over many years of studying global prosperity, drawing upon the guidance and advice from around 40 U.S. experts from academia, policy centers and research institutes. It unpacks what we mean by inclusive societies, open economies and empowered people in a U.S context.

Alongside this conceptual report, we have produced a methodology-report that explains how we measure prosperity in the United States through our United States Prosperity Index (USPI), which, together with a document detailing the sources and indicators used within the Index, can be found via our website: www.usprosperity.net.

Defining prosperity

What is prosperity?

Through our extensive research and experience, it has become ever-more apparent that the multidimensional nature of true prosperity must be clearly articulated. True prosperity entails much more than wealth: it reaches beyond the financial into the political, the judicial, and the wellbeing and character of a nation — it is about creating an environment where a person is able to reach their full potential.

The following section outlines the definition of prosperity in a U.S context, describing its core components and structures.

The domains of prosperity

The **Inclusive Societies** domain captures the relationship structures that exist within a society, between and among individuals and broader institutions, and the degree they either enable or obstruct societal cohesion and collective development. These social and legal institutions are essential in protecting the fundamental freedoms of individuals, and their ability to flourish. This domain consists of the Safety and Security, Personal Freedom, Governance, and Social Capital pillars.

The **Open Economies** domain captures the extent to which an economy is open to competition, encourages innovation and investment, promotes business and trade, and facilitates inclusive growth. For a society to be truly prosperous, it requires an economy that embodies these ideals. This domain consists of the Business Environment, Infrastructure, and Economic Quality pillars.

The **Empowered People** domain captures the quality of people's lived experience and the associated aspects that enable individuals to reach their full potential through autonomy and self-determination. This domain consists of the Living Conditions, Health, Education, and Natural Environment pillars.

Together, these domains comprise 11 pillars. It is important to note that the pillars within each domain do not only associate with other pillars in the domain, but interrelate with pillars across the other domains, and each pillar should therefore be understood in its wider context. For example, the Living Conditions pillar looks at the set of basic material conditions present in everyday life that provide the platform for members of society to attain prosperity and wellbeing. Other necessities for wellbeing, such as health, education, and freedom from coercion, are captured in other pillars.

For each of the 11 pillars within the three domains, we identified the core distinct concepts that best define them, and are integral to each of them, comprising a structure which:

- Covers all aspects relevant to the pillar;
- Has conceptual clarity and academic backing;
- Uses a language that speaks to policymakers.

The result is a set of 48 distinct policy-focused elements, organised under the 11 pillars. Each element has been designed to reflect a discrete policy area that policymakers and others can influence.

An infographic that sets out the taxonomy of prosperity in the United States, and the linking of the 3 domains, 11 pillars, and 48 elements is illustrated in Figure 1 on page 5. The pages that follow give clarity and greater detail to the definition of each of the domains, pillars, and elements underpinning this structure.

Legatum Institute Definition Of Prosperity

True prosperity is when all people have the opportunity to thrive.

Prosperity is underpinned by an inclusive society, with a strong social contract that protects the fundamental liberties and security of every individual.

In a prosperous society:

- People live in peace, free from the threat of violence, oppression, and crime.
- Everyone's inherent dignity is respected, and freedom of speech, worship, and assembly are protected.
- Governing institutions act with integrity, are accountable to citizens, and are subject to the rule of law.
- Stable families and supportive communities instill the values that shape the culture and build the bonds of trust needed for society to flourish.

Prosperity is driven by an open economy that harnesses ideas and talent to create sustainable pathways out of poverty.

In a prosperous society:

- Property rights are protected, so investment can flow.
- Business regulation enables entrepreneurship, competition, and innovation.
- Open markets and high-quality infrastructure facilitate trade and commerce.
- Fiscal and monetary policy are used responsibly to foster employment, productivity, and sustained economic growth.

Prosperity is built by empowered people, who create a society that promotes wellbeing.

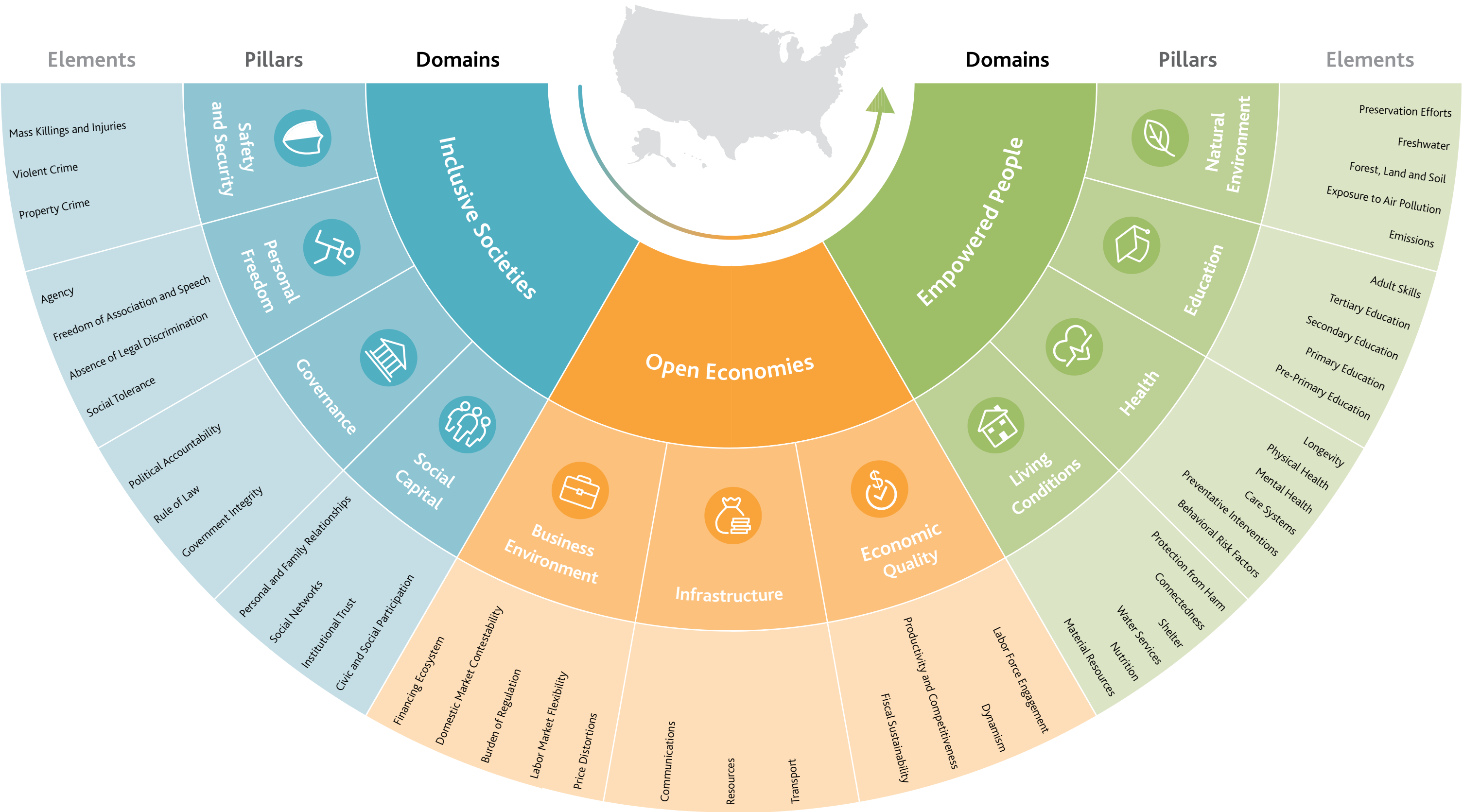
In a prosperous society:

- Everybody is able to build a life free from poverty.
- People take care of their physical and mental health and have access to effective healthcare.
- Learning is valued and everyone receives a high-quality education, so they can reach their potential.
- The natural environment is stewarded wisely, as a legacy for present and future generations.

True prosperity means everyone has the opportunity to thrive by fulfilling their unique potential and playing their part in strengthening their communities and nations.

Because ultimately, prosperity is not just about what we have; it is also about who we become.

Figure 1: The domains, pillars, and elements of U.S. prosperity



Inclusive Societies

Inclusive Societies are an essential requirement for prosperity, where social and legal institutions protect the fundamental freedoms of individuals, and their ability to flourish. This domain explores the relationship structures that exist within a society, and the degree to which they either enable or obstruct societal cohesion and collective development.

Areas within this domain range from the relationship of citizen and state, to the degree to which violence permeates societal norms, to the interaction of freedoms of different groups and individuals, to the way in which individuals interact with one another, their communities, and institutions. These issues have been both a practical consideration for the majority of modern human experience, as well as a subject of academic study.

We examine the fundamental aspects of inclusive societies across four pillars, each with component elements.

Safety and Security captures the degree to which individuals and communities are free from terrorism, violent crime, and property crime. The lives of individuals, their freedoms, and the security of their property are at risk in a society where these activities are present, both through their current prevalence, and long-lasting effects. In short, a community or society can prosper only in an environment of security and safety for its citizens.

Personal Freedom captures basic legal rights (agency), individual liberties (freedom of assembly and association, freedom of speech and access to information), the absence of legal discrimination and the degree of social tolerance experienced in a society. Societies that foster strong civil rights and freedoms have been shown to enjoy increased levels of satisfaction among their citizens. Furthermore, society benefits from higher levels of income when its citizens' personal liberties are protected and when it is welcoming of the diversity that stimulates innovation.

Governance assesses the extent to which there are checks and restraints on power, and whether governments operate effectively and without corruption. It also assesses the degree to which there is political accountability, both in the way of representation in state legislatures and how well each state runs national elections. The nature of governance has a material impact on its prosperity.

Social Capital captures the strength of personal and family relationships, social networks and the cohesion a society experiences when there is high institutional trust, and people respect and engage with one another (civic and social participation). A person's wellbeing is best provided for in a society where people trust one another and have the support of their friends and family. Societies with lower levels of trust tend to experience lower levels of economic growth. Thus, the word "capital" in "social capital" highlights the contribution of social networks as an asset that produces economic returns and improves wellbeing.

The following pages provide a more detailed definition for each of these pillars, and an overview of their relationship to prosperity.

Safety and Security

The presence or absence of violent and other criminal activities determines how safe and secure the population is. The lives of individuals and the security of their property are at risk in a society where these activities are present. The effect that crime has on both economic growth, and subjective wellbeing, is widely explored in the literature. Crime impedes economic growth via the discouragement of investment and capital accumulation, through an undermining of property rights.¹

At its most destabilizing level, as elucidated by Mehlum et al., economies have two potentially stable equilibria, "a) One where crime rates are high and capital stock, labor demand, and income is low. b) One where crime rates are low and capital stock, labor demand, and income is high."² Endemic crime can result in an economy finding a so called 'poverty trap', where crime becomes the most effective means of individual gain, but acts as a break on real opportunity for development. Mehlum concludes by establishing the existence of the "vicious circle of increasing crime and stagnation".³

In addition to the economic impacts, crime affects the wellbeing of individuals and communities in several ways. The impact of the trauma of crime on the direct victims and their loved ones can be profound and devastating, and Graham (2011) concluded that being a victim of crime always has a negative effect on happiness.⁴ Scholars such as Cohen argue that crime has relatively little effect on the sum wellbeing of a community due to 'adaptation to adversity', where individuals effectively 'get used to' higher levels of crime, and the "risk-fear paradox" as coined by Farral, Gray & Jackson shows that the direct relationship between crime and individual wellbeing is not straightforward; those who are more at risk of crime are likely to exhibit and experience less fear.^{5,6}

In addition, the detriment to the wellbeing of people may be found through the indirect effects of crime. Crime may have even more acute effects on individual neighborhoods, and the individuals who reside in or around them. High levels of crime, lawlessness, or gang activity can create 'no-go' areas through which residents and locals don't move that can discourage individual opportunity via the prevention of travel for work or other purposes, and have distinct effects on individual wellbeing, undermining governance.⁷ This particular pervasive effect of crime is the reason for the large number of community-based crime-prevention efforts, the largest of which in the U.S. is the Neighborhood Watch program.⁸

For a society or community to be truly safe and secure, there must be an absence of both domestic and national security risks. The effects of mass shootings and terrorism can be pervasive. The damage done by such events reaches far beyond the event itself; communities must rebuild themselves, cope with grief, and address psychological traumas arising from the atmosphere created. For this reason, the Terrorism element captures the extent to which such events have destabilised societies over the past five years.

Elements of Safety and Security

1. **Mass Killing and Injuries** — The effect mass shootings and other forms of terrorism on both individuals and communities.
2. **Violent Crime** — The level to which violent domestic crime affects residents, encompassing homicide, aggravated assault, rape, and robbery.
3. **Property Crime** — The level to which property crime, such as arson and burglary, destabilize the security of individuals.

1. Josten, Stefan Dietrich. "Inequality, crime and economic growth: A classical argument for distributional equality." *International Tax and Public Finance* 10, no. 4 (2003): 435-452.

2. Mehlum, Halvor, Karl Moene, and Ragnar Torvik. "Institutions and the resource curse." *The Economic Journal* 116, no. 508 (2006): 1-20.

3. Ibid.

4. Graham, Carol. "Adaptation amidst prosperity and adversity: Insights from happiness studies from around the world." *The World Bank Research Observer* 26, no. 1 (2010): 105-137.

5. Cohen, Mark A. "The effect of crime on life satisfaction." *The Journal of Legal Studies* 37, no. S2 (2008): S325-S353.

6. Farral, Stephen, Emily Gray, and Jonathan Jackson. "Theorising the fear of crime: The cultural and social significance of insecurities about crime." Working Paper 5, *Experience & Expression in the Fear of Crime* (2007).

7. Wilson, Ronald E., Timothy H. Brown, and Beth Schuster. "Preventing neighborhood crime: Geography matters." *National Institute of Justice Journal* 263 (2009): 30-35.

8. Ibid.

Personal Freedom

The Personal Freedom pillar assesses the progress towards basic legal rights, individual liberties, and social tolerance. Our definition of freedom takes root in the school of thought that has permeated modern liberal thinking for the past few centuries, with roots in John Locke's assertion that freedom implies an individual not "be subject to the arbitrary will of another, but freely follow his own."⁹ Isaiah Berlin best articulated the concept of freedom that underpins the Personal Freedom pillar as "negative liberty" (the concept of non-interference by others), whereas "positive liberty", which is the removal of impediments to one's fulfillment or potential, is not a consideration of our assessment.¹⁰

When freedom is restricted it becomes more difficult for people to live their lives in the ways that they choose. Freedom is important because it underpins personal flourishing, enabling people to pursue their ambitions and follow their paths in life. With freedom also comes responsibility for actions. When individuals are responsible for their own actions, and free to test new ideas and ways of acting, they can learn from mistakes and all can benefit from the innovations. Societies that foster strong civil rights and freedoms have been shown to enjoy increased levels of both happiness and life satisfaction among their residents, with the satisfaction effect being more pronounced in more developed countries, such as the U.S.^{11,12,13}

The concepts covered in our personal freedom pillar are considered protected by America's signature on international human rights treaties, along with the Constitution.

A society benefits from higher levels of income when its residents' personal liberties are protected and when it is welcoming of the social diversity that stimulates innovation. There are four pathways through which human freedom can spur economic growth: reduced economic inequality, human development, effective institutions and governance, and the absence of conflict and political instability.¹⁴

The relationship between free societies and economic progress is questioned more often today due to the successful development of authoritarian nations such as China or Singapore. There are clearly many paths to development through an economic lens, but Sen argues that human rights are not the primary end of development, but among the principle means; they constitute a necessary condition for income and growth.¹⁵

Civil and political freedoms such as freedom of speech and elections help promote economic security. Uncertainty associated with lack of respect for human rights makes the return on investment more insecure and volatile. This suggests that disregarding human rights may lead to lower investment rates, lower productivity, and lower growth.

The definition of Personal Freedom can be separated into those elements that capture freedom for the population as a whole to act in all its forms (including freedom of movement, assembly, and speech), and elements that impact specific subsets of the population, whether through de jure discrimination or the de facto experience of freedom and tolerance.

Elements of Personal Freedom

1. **Agency** — The degree to which individuals are free from coercion or restriction and are free to move. Indicators such as incarceration rates and shootings of civilians by lawmakers are used to proxy the degree to which people's agency is restricted by state actors;
2. **Freedom of Association and Speech** — Assesses whether people have the freedom to engage themselves in the civic sphere in collective interest groups, and the degree to which they are free to share ideas in public forums;
3. **Absence of Legal Discrimination** — The degree to which there is no discrimination by law, and how much the law protects individuals and groups from suffering discrimination;

9. Locke, John. *Two Treatises of Government: With a Supplement, Patriarcha*, by Robert Filmer. (Simon and Schuster, 1947).

10. Berlin, Isaiah. "Two concepts of liberty." *In Liberty Reader*, pp. 33-57. Routledge, 2017.

11. Veenhoven, Ruut. "Social conditions for human happiness: A review of research." *International Journal of Psychology* 50, no. 5 (2015): 379-391.

12. Inglehart, Ronald, Roberto Foa, Christopher Peterson, and Christian Welzel. "Development, freedom, and rising happiness: A global perspective (1981-2007)." *Perspectives on Psychological Science* 3, no. 4 (2008): 264-285.

13. Verme, Paolo. "Happiness, freedom and control." *Journal of Economic Behavior & Organization* 71, no. 2 (2009): 146-161.

14. Marslev, K. & Sano, H-O. "The Economy of Human Rights. Exploring Potential Linkages between Human Rights and Economic Development". *Matters of Concern, the Danish Institute for Human Rights*, 2016/2.

15. Sen, Amartya. "Development as Freedom (New York: Anchor)." *SOUTH INDIAN ICT CLUSTERS* 227 (1999).

4. **Social Tolerance** — Captures whether societies are tolerant of differences within the population, and the level of tension arising over differences in identity. Societal discrimination and intolerance can engender serious issues within a society and are a significant inhibitor of individual's de facto freedoms.

Governance

Stable and trustworthy governance is one of the central and underlying components of economic exchange. The more culturally embedded the rule of law and good governance becomes, the more effective these are in promoting and supporting a healthy economic environment. Governance is at its most robust when it has been established over time through natural evolution and is essentially a codification of cultural expectations and behaviors.¹⁶

The importance of strong governmental institutions to long-run economic growth cannot be overstated; it has been shown that institutional capacity was more important to long-term success than discrete policy choices.¹⁷ Even when controlling for extraneous factors such as culture, there is evidence that economic institutions are one of the main determinants in differences in economic prosperity, and that these effects can last for centuries.¹⁸ Replications of these findings have shown that institutions are more important to long-run growth than either trading or geographic factors.¹⁹

Economic progress is not possible without the firm foundation of the rule of law. The absence of the rule of law will result in depressed domestic and foreign investment, and cronyism in the business environment, leading people to rely primarily on personal networks and patronage rather than the strength of their own ideas. The rule of law has also been linked to important improvements in personal freedoms.²⁰ Improvements in governance have a dramatic effect on raising overall economic prosperity. A recent study has shown that a shift to democracy leads to a 20% increase in GDP per capita in the long run.²¹ However, once an effective base of trustworthy governance has been achieved, the effects of further improvements to governance are subject to diminishing returns.

The minimization of corruption is also critical to the functioning of a society. High levels of corruption are associated with higher levels of poverty and income inequality.²² Corruption will corrode trust, which is critical to ensuring an environment where frictionless (or near-frictionless) transactions can take place. A culture of trust invariably takes time to become established. These attributes are more valuable if good behaviors, such as trust, respect, and diligence are embedded in a culture, as opposed to imposed from some outside force as a part of a treaty or international agreement.

Governance can be conceptually split between the structural and operational aspects of how political and administrative power is checked, and how it is applied. The structural aspects capture how a government and political administration adhere to the law, the extent to which there is accountability to the public, and the rule of law. The operational aspects capture the integrity of a government.

Elements of Governance

1. **Political Accountability** — The extent to which the public can hold public institutions accountable (e.g. elections), ensuring power transitions according to law. It also captures the degree of political pluralism and other mechanisms of accountability;
2. **Rule of Law** — Captures the fairness, independence, and effectiveness of the judiciary (in applying both civil and criminal law), along with the accountability of the public to the law;
3. **Government Integrity** — assesses the integrity of a government, encompassing both the absence of corruption, and the degree to which government fosters citizen participation and engagement, through open information and transparent practices.

16. Adkisson, Richard V., and Randy McFerrin. "Culture and good governance: A brief empirical exercise." *Journal of Economic Issues* 48, no. 2 (2014):441-450.

17. Douglass C. North. *Institutions, institutional change, and economic performance* (Cambridge: Cambridge University Press, 1990)

18. Acemoglu, Daron, and James Robinson. "The role of institutions in growth and development." *Leadership and Growth* (2010)135

19. Rodrik, Dani, Arvind Subramanian, and Francesco Trebbi. "Institutions rule: The primacy of institutions over geography and integration in economic development." *Journal of Economic Growth* 9, no. 2 (2004): 131-165.

20. Acemoglu, Daron, Suresh Naidu, Pascual Restrepo, and James A. Robinson. "Democracy does cause growth." *Journal of Political Economy* 127, no. 1 (2019): 47-100.

21. Vásquez, Ian, and Tanja Porčnik. *The human freedom index: A global measurement of personal, civil, and economic freedom* (Washington, D.C.: The Cato Institute, 2018).

22. Gupta, Sanjeev, Hamid Davoodi, and Rosa Alonso-Terme. "Does corruption affect income inequality and poverty?." *Economics of Governance* 3, no. 1 (2002): 23-45.

Social Capital

Social Capital represents the networks and the cohesion a society experiences when people trust and respect one another. Loosely, social capital refers to the factors of effectively functioning social groups, encompassing interpersonal relationships, a shared sense of identity, norms, values, trust, co-operation, and reciprocity, but there is no clear consensus on its exact definition. It can be considered as a social organization facilitating the achievement of goals that could not be achieved in its absence, or could be achieved only at a higher cost, or in other words the existence of a certain set of informal rules or norms shared among members of a group that permits cooperation among them.^{23,24} Alternatively, it has also been described as the connections among individuals — social networks — and the norms of reciprocity and trustworthiness that arise from them.²⁵

A person's wellbeing is best provided for in a society where people trust one another and have the support of their friends and family. The link between social capital and wellbeing in forms from health, education, to political participation and good governance has been widely explored.^{26,27}

The process by which it operates has been described as follows: (1) social capital generates positive externalities for members of a group; (2) these externalities are achieved through shared trust, norms, and values, and their consequent effects on expectations and behavior; (3) shared trust, norms, and values arise from informal forms of organizations based on social networks and associations.²⁸

In general, higher trust environments correlate with higher life satisfaction, subjective wellbeing, and health, and that the frequency of interaction with friends and neighbors has a strong correlation with higher assessments of subjective well-being and health.²⁹

Societies with lower levels of trust tend to experience lower levels of economic growth. Thus, the word 'capital' in 'social capital' highlights the contribution of social networks as an asset that produces economic returns and improves wellbeing. For example, it has been argued that Northern Italy developed faster than Southern Italy because the former was better endowed with social capital — reflected by membership in groups and clubs.³⁰

The networks of social capital can operate on a range of different dimensions — with different effects. Hence, we capture a range of elements of social capital, ranging from relationships with family and close personal friends, to social networks, including generalized trust. We also consider institutional trust, and civic and social participation.

Elements of Social Capital

1. **Personal and Family Relationships** — captures the strength of the closest-knit personal relationships and family ties. These relationships form the core structure that individuals can turn to for support emotionally, mentally, and financially on a daily basis.
2. **Social Networks** — captures the strength of, and opportunities provided by, ties that an individual has with people in their wider network. These ties are a vital part of social support, and these networks can bolster bridging capital when social and community networks straddle different strata within society. Local social networks depend on building and maintaining relationships with other individuals and families, including neighbors.
3. **Institutional Trust** — captures the degree to which individuals trust their institutions. Trust in institutions is an important foundation upon which the legitimacy and stability of political systems are built.

23. Coleman, James S. "Rational organization." *Rationality and Society* 2, no. 1 (1990): 94-105.

24. Fukuyama, Francis. "Francis Fukuyama Article on Social Capital: Global Trends and U.S. Civil Society." *Harvard International Relations Council* 20, no. 1 (1997): 60-64.

25. Putnam, Robert D. 2000. *Bowling Alone: The Collapse and Revival of American Community* (New York: Simon & Schuster).

26. Uphoff, Eleonora P., Kate E. Pickett, Baltica Cabieses, Neil Small, and John Wright. "A systematic review of the relationships between social capital and socioeconomic inequalities in health: A contribution to understanding the psychosocial pathway of health inequalities." *International Journal for Equity in Health* 12, no. 1 (2013): 54.

27. Knowles, Stephen, "Is social capital part of the institutions continuum?" *CREDIT*, no. 05/11 (2005).

28. Steven N. Durlauf, Marcel Fafchamps, "Social capital." NBER Working Paper 10485, *National Bureau of Economic Research* (2004) <http://www.nber.org/papers/w10485>

29. Helliwell, John F., and Robert D. Putnam. "The social context of well-being." *Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences* 359, no. 1449 (2004): 1435-1446.

30. Putnam, Robert D., Robert Leonardi, and Raffaella Y. Nanetti. *Making democracy work: Civic traditions in modern Italy* (Princeton University Press, 1994).

4. **Civic and Social Participation** — assesses the amount to which people participate within a society, broadly split into the civic and social spheres.

Open Economies

Open Economies encourage innovation and investment, promote business and trade, and facilitate inclusive growth. This domain captures the extent to which the economies of each state embody these ideals. Without an open, competitive economy, it is very challenging to create lasting social and economic wellbeing where individuals, communities, and businesses are empowered to reach their full potential. Trade between states, communities, and other nations is fundamental to the advance of innovation, knowledge transfer, and productivity that creates economic growth and prosperity. Research shows that open economies are more productive, with a clear correlation between increased openness over time and productivity growth. In contrast, in an uncompetitive market, or one that is not designed to maximize welfare, growth stagnates, and crony capitalism thrives, with knock-on impacts elsewhere in society.

One of the biggest opportunities for policymakers is to resist protectionism and cronyism, and to actively reinvigorate an agenda that embraces open and pro-competitive economies, both domestically and internationally, that attracts innovation, ideas, capital, and talent. While most policymakers focus on the big fiscal and macro-economic policy tools at their disposal, the microeconomic factors are sometimes overlooked, and their potential to drive openness and growth is underestimated.

With a focus on these microeconomic factors, we examine the fundamental aspects of open economies across three pillars, each with component elements.

Business Environment assesses the amount and variety of investment finance available (Financing Ecosystems) and how easy it is for businesses to start, compete, and expand (Domestic Market Contestability). Contestable markets with low barriers to entry and adequate pools of funding are important for businesses to innovate and develop new ideas. This is essential for a dynamic and enterprising economy, where the Burden of Regulation and any inhibitors on the flow of goods and services between businesses (Price Distortions), enables, rather than hinders business and responds to the changing needs of society and ensures Labor Market Flexibility.

Infrastructure captures the quality of the infrastructure (Communications, Transport, and Resources) that enables commerce. Businesses require infrastructure that allows for efficient communication, adequate provision of water and electricity, and connects them to transport hubs and economic centers. This leads to more competitive and efficient markets, allowing new products and ideas to be commercialized and transported within the U.S. and overseas, ultimately benefiting consumers through a greater variety of goods at more competitive prices.

Economic Quality assesses how robust an economy is (Fiscal Sustainability) as well as how an economy is equipped to generate wealth (Productivity and Competitiveness, Dynamism). A strong economy is dependent on high labor force engagement and the production and distribution of a diverse range of valuable goods and services.

The following pages provide a more detailed definition for each of these pillars, and an overview of their relationship to prosperity.

Business Environment

A healthy economy is a dynamic and competitive one, where regulation supports business, allowing and encouraging it to respond to the changing priorities of society. Entrepreneurial activity is one of the key drivers of long-term prosperity, and its importance will only grow as the pace of technological change increases and the number of people involved in that change rises. Given the pace of change inherent to the information age, the ability to react quickly to new firm and market level opportunities is critical to overall prosperity. This entrepreneurial behavior is especially important for the employment market and tax revenues. A state's regulatory structure underpins its business environment.

Financial depth and complexity, which ensures that adequate capital of the right type is available for investable propositions, is robustly and positively correlated with economic growth.^{31, 32} A well-functioning financial system is highly effective at mobilizing savings and investments that support entrepreneurs and innovations that are vetted by their potential to improve productivity.³³

The regulatory structure needs to encourage and support enterprise, if entrepreneurial activity is to flourish, and is also important in determining how people interact with businesses in any given state. Where these elements are not in good working order, it is difficult to encourage formal business activity. Taxation, for example, is a critical factor in deciding where and how businesses are structured. If it is not made both simple and reasonable, it will be avoided.³⁴ In addition to

the taxation structure, it is clear that overburdening businesses with tough-to-follow regulations does not necessarily discourage business activity; it discourages formalized business activity that can be monitored and taxed by the state, as people seek ways of circumventing burdensome regulation. Highly restricted labor markets will similarly discourage formal employment, opening workers up to instability and the potential for exploitation.³⁵

The quality of a business environment can broadly be separated into those aspects that promote entrepreneurship, and those that limit commercial development. These two groups of elements express the factors which might persuade or dissuade an individual from going into business.

Domestic market contestability, which captures how open the market is to new participants, versus protections in place for incumbents, falls into the former category, as does financing ecosystems. The growth in the sophistication of financial markets over the last four decades has been considerable, and the appreciation of the role of capital in economic growth and prosperity has been growing.^{36, 37, 38} As evidenced from studies in the United States, financial depth and sophistication have become more important than ever for the availability of venture capital, which provides critical early-stage funding to new companies.^{39, 40}

The burden of regulation, which captures the amount of government regulation, can limit commercial development, as can price distortions which include subsidies and taxes as disrupters of fair competition.

31. De Gregorio, Jose, and Pablo E. Guidotti. "Financial development and economic growth." *World Development* 23, no. 3 (1995): 433-448.

32. See for example: Levine, Ross. "Finance, growth and economic prosperity." *Macroeconomic Review* (2018): 82-88.

33. King, Robert G., and Ross Levine. "Finance, entrepreneurship and growth." *Journal of Monetary Economics* 32, no. 3 (1993): 513-542.

34. Mankiw, N. Gregory, Matthew Weinzierl, and Danny Yagan. "Optimal taxation in theory and practice." *Journal of Economic Perspectives* 23, no. 4 (2009): 147-74.

35. Radulescu, Roxana, and Martin Robson. "Does labour market flexibility matter for investment? A study of manufacturing in the OECD." *Applied Economics* 45, no. 5 (2013): 581-592.

36. Ross Levine. "Finance and growth: Theory and evidence," chap. 12 in *Handbook of economic growth*, ed. Philippe Aghion and Steven Durlauf, vol. 1 (Amsterdam: Elsevier, 2005): 865-934.

37. Anne O. Krueger. "Financial markets and economic growth." *IMF*, September 28, 2006, <https://www.imf.org/en/News/Articles/2015/09/28/04/53/sp092806>

38. Fischer, Stanley. "The importance of financial markets in economic growth." (lecture given at International Derivatives and Financial Market Conference of the Brazilian Mercantile and Futures Exchange Conference, Brazil, August, 2003): 20-23.

39. Maula, Markku, and Gordon Murray. "Corporate venture capital and the creation of U.S. public companies: The impact of sources of venture capital on the performance of portfolio companies" in *Creating value: Winners in the new business environment* (Oxford: Blackwell Publishers, 2002) : 164-187.

40. Manigart, Sophie, and Harry Sapienza. "Venture capital and growth" in *The Blackwell Handbook of Entrepreneurship* (Oxford: Blackwell Publishers, 2017): 240-258.

Labor market flexibility, which captures how dynamic the workplace is for both employers and employees, also falls into the latter category.

Elements of Business Environment

1. **Financing Ecosystems** — Assesses the availability of money for investment from sources such as banking and bank debt, to corporate debt and more sophisticated financial markets.
2. **Domestic Market Contestability** — examines how open the market is to new participants, versus protection of the incumbents.
3. **Burden of Regulation** — captures how much effort and time are required to comply with regulations, including tax regulations.
4. **Labor Market Flexibility** — assesses how dynamic and flexible the workplace is for both employer and employee.
5. **Price Distortions** — The extent to which competitive markets are disrupted by subsidies and taxes.

Infrastructure

Trade enables the movement of goods, services, ideas, capital, and people. Our Infrastructure pillar assesses the quality of the infrastructure that enables trade (Communications, Resources, and Transport). Where markets have sufficient infrastructure and few barriers to the exchange of goods and services, trade can flourish. Such trade leads to more competitive and efficient markets, enabling new products and ideas to be tested, funded, and commercialized.^{41,42} Unencumbered trade is a vital component of prosperity, delivering benefits to producers, consumers, and society as a whole.⁴³ Producers with access to good transport and communications infrastructure are more likely to succeed than those with de facto barriers. Consumers benefit from the increased competition that freer trade brings, which tends to improve quality, lower prices, and increase the variety of goods and services available.

The infrastructure that enables trade and commerce to operate can be measured by assessing the critical enablers of trade. Trade enablers are

the things that enhance and make trade in all its forms possible. Chief amongst these is communications, where information technology, flowing through a modern communications network, has become the very lifeblood of industry.⁴⁴ Economic production is impossible without the resources of energy and water. Transport, and the infrastructure upon which it operates, is the great enabler of physical trade, but is also vital for services as it allows people to move to seek and build business opportunities.

Elements of Infrastructure

1. **Communications** — The quality of communications infrastructure and the extent of communications access.
2. **Resources** — Captures the quality and reliability of the energy network, as well as the access to, and use of, water resources.
3. **Transport** — Captures the quality, diversity, and penetration of all forms of transport, and the quality of the physical infrastructure upon which transport depends, including road, rail, and air.

41. Paul Krugman, "Scale economies, product differentiation, and the pattern of trade" *American Economic Review*, 70, no. 5, (1980): 950-959.

42. Stiglitz, Joseph E., and Avinash K. Dixit, "Monopolistic competition and optimum product diversity" *American Economic Review*, 67, no. 3 (1977): 297-308.

43. Frankel, Jeffrey A., and David H. Romer. "Does trade cause growth?" *American Economic Review* 89, no. 3 (1999): 379-399.

44. Farhadi, Maryam, Rahmah Ismail, and Masood Fooladi. "Information and communication technology use and economic growth." *Public Library of Science ONE* 7, no. 11 (2012): e48903.

Economic Quality

Economic Quality captures how well an economy is equipped to generate wealth sustainably and with the full engagement of its workforce. A strong economy is dependent on the production of a diverse range of valuable goods and services and high labor force participation.

Trust in the economic system is underpinned by predictability, which is important for both consumers and businesses. People are better able to adapt to an unpleasant certainty than uncertainty, as shown in the aftermath of the financial crisis.⁴⁵ Volatility has also long been shown to negatively correlate with economic growth.^{46,47,48}

The ability to produce valuable products, more so than producing the same product faster or at a lower cost, is also vital to economic growth. Acquiring new productive capabilities, thereby evolving a comparative advantage, is one of the cornerstones of economic growth — not just at the forefront of the technological frontier, but also in less-developed economies.^{49,50} A dynamic economy means that more ideas are entering the market, with determinants of long-run productivity growth found to be human capital and research and development.⁵¹

Growth must also be inclusive if it is to improve the prosperity of all. Everyone must have the opportunity to participate in the labor

market, use and develop their skillset, and reach their productive potential. This is important at the level of the individual, as it means that income inequality can be mitigated — this being a key determinant of happiness and subjective wellbeing.^{52,53} In addition to the implications for social wellbeing, it is also important at a more macro-level, as income inequality has negative consequences for aggregate economic potential.^{54,55}

For an economy to be of high quality, it must be robust to shocks, captured in our fiscal sustainability element, in terms of historical stability and the capability of a government to sustain its spending policies into the future. The capacity for value generation is a central aspect of the economy. Increases in the complexity of products, as well as in the efficiency with which they are produced, are central to long-run increases in growth, and captured in the productivity and competitiveness element. For this to happen, there must be a churn of businesses, with new, more productive firms entering the market, which is the focus of the dynamism element. The links between dynamism and productivity growth have been studied widely and suggest that the decline in startup activity, with the concomitant decline in the opportunities for selective pressure and market-share reallocation, is a driver of stagnating productivity growth in the U.S.^{56,57} The final element, labor force engagement, assesses the extent to which the growth of

45. Graham, Carol. "Happy peasants and miserable millionaires: Happiness research, economics, and public policy," VOX, January 30, 2010, <https://voxeu.org/article/happy-peasants-and-miserable-millionaires>.

46. Hnatkovska, Viktoria, and Norman Loayza, "Volatility and growth." *The World Bank* (2004).

47. Judson, Ruth, and Athanasios Orphanides. "Inflation, volatility and growth." *International Finance* 2, no. 1 (1999): 117-138.

48. Imbs, Jean. "Growth and volatility." *Journal of Monetary Economics* 54, no. 7 (2007): 1848-1862.

49. Ricardo Hausmann. "What are the challenges of economic growth?" *The Growth Lab*, 2015, <https://growthlab.cid.harvard.edu/publications/what-are-challenges-economic-growth>.

50. Hausmann, Ricardo, and Bailey Klinger. "The structure of the product space and the evolution of comparative advantage." *Center for International Development at Harvard University* 146 (2007).

51. Bronzini, Raffaello, and Paolo Piselli. "Determinants of long-run regional productivity with geographical spillovers: The role of R&D, human capital and public infrastructure." *Regional Science and Urban Economics* 39, 2 (2009): 187-199.

52. Jebb, Andrew T., Louis Tay, Ed Diener, and Shigehiro Oishi. "Happiness, income satiation and turning points around the world." *Nature Human Behaviour* 2, no. 1 (2018): 33.

53. Diener, Ed, and Louis Tay. "Subjective well-being and human welfare around the world as reflected in the Gallup World Poll." *International Journal of Psychology* 50, no. 2 (2015): 135-149.

54. Ferreira, Francisco HG. "Inequality and economic performance: a brief overview to theories of growth and distribution." *World Bank* (1999).

55. Stiglitz, Joseph E. "Inequality and economic growth," in *Rethinking Capitalism*, (Chichester: Wiley-Blackwell, 2016), pp. 134-155.

56. Alon, Titan, David Berger, Robert Dent, and Benjamin Pugsley. "Older and slower: The startup deficit's lasting effects on aggregate productivity growth." *Journal of Monetary Economics* 93 (2018): 68-85.

57. Decker, Ryan A., John Haltiwanger, Ron S. Jarmin, and Javier Miranda. "Declining Dynamism, Allocative Efficiency, and the Productivity Slowdown." *American Economic Review* 107, 5 (2017): 322-26.

the economy is inclusive in terms of the opportunity for everyone to participate in the workforce to the fullest extent.

Elements of Economic Quality

1. **Fiscal Sustainability** — assesses the ability of a government to sustain its current spending, tax, and other policies in the medium to long term.
2. **Productivity and Competitiveness** — captures the efficiency of the labor force, as well as the export value of goods and services.
3. **Dynamism** — examines the churn of businesses — the number of new startups and failed firms entering and exiting an economy.
4. **Labor Force Engagement** — looks at the intersection of demography and the workforce, including the rates of unemployment, participation in the labour force, the level of unemployment, and workforce engagement

Empowered People

Empowered People captures the quality of people's lived experiences and the features present that enable individuals to reach their full potential through autonomy and self-determination. This domain starts with the necessary resources required for a basic level of wellbeing, ranging from levels of material resources, to adequate nutrition, to basic health and education outcomes, access, and quality, and to a safe and clean environment. Many of these issues are inter-related. The pillars in this domain differentiate performance on these fundamental aspects of social wellbeing to distinguish where greater numbers of people are disadvantaged and less likely to achieve wellbeing.

We examine the fundamental aspects of empowered people across four pillars, each with component elements.

Living Conditions captures the set of conditions or circumstances that are necessary for all individuals to attain a basic level of wellbeing. This set of circumstances includes a level of material resources, adequate nutrition, and access to basic services and shelter. It also assesses the level of connectedness of the population, and the extent to which they are in a safe living and working environment. These enable the individual to be a productive member of society and to pursue prosperity and build a flourishing life.

Health assesses the extent of health service provision and the health outcomes of a population — including the quality of both mental health and physical health, each of which affects longevity. It also assesses

the set of behavioral risk factors that affect the quality of the population's health, and the quality of the healthcare provision through the lenses of care systems and preventative interventions. For a state to truly prosper, its residents must have good health. Those who enjoy good physical and mental health report high levels of wellbeing, while poor health keeps people from fulfilling their potential.

Education captures the enrollment, outcomes, and quality of four stages of education (pre-primary, primary, secondary, and tertiary education), as well as the adult skills in the population. Education allows people to lead more fulfilling lives, and a better educated population is more able to contribute to society. Over the long-term, education can help to drive economic development and growth while improving social and health outcomes, as well as leading to greater civic engagement.

Natural Environment assesses the elements of the physical environment that have a direct impact on the ability of residents to flourish in their daily lives. Also assessed is the extent to which the ecosystems that provide resources for extraction (Freshwater and Forest, Land and Soil) are sustainably managed. A well-managed rural environment yields crops, material for construction, wildlife and food, and sources of energy. The extent of preservation efforts is also captured, as these are critical to longer-term sustainability.

The following pages provide a more detailed definition for each of these pillars, and an overview of their relationship to prosperity.

Living Conditions

Living conditions are the set of basic material conditions present in everyday life that provide the platform for members of society to attain prosperity and wellbeing. If these basic materials are present, then poverty — along a multi-dimensional approach — will be avoided. This outcome is a good in itself, and furthermore provides individuals an opportunity to flourish in society.

Decent living conditions are necessary to meet the basic needs of a population, provide central capabilities, and achieve wellbeing. The basic needs approach, as developed by Doyal and Gough, argues that there are a set of basic universal needs, without which there will be a “fundamental disablement in the pursuit of one’s vision of the good.”⁵⁸ The capabilities approach, as developed by Sen and Nussbaum, argues a person’s capability to live a good life is defined in terms of the set of functions one is able to do and to which one has access.^{59,60} Neither of these are possible without a set of adequate living conditions.

Adequate living conditions not only provide intrinsic worth through enabling individuals with wellbeing, they also provide a platform for success. Ensuring basic needs are met is an effective way of maintaining health and furthering education, both of which are key components of human capital and have significant economic benefits to individuals and society. To be productive, individuals should have access to sufficient material resources to provide for themselves and their loved ones, have access to suitable accommodation that is connected to the necessary services, be free from illness or death caused by an unsafe living or working environment, have adequate nutrition and energy intake to be healthy and work effectively, and have sufficient resources to access jobs and technology.

Ensuring all members of society are connected to core activities and services allows individuals the opportunity to include themselves in cultural, economic, and social activities important for human flourishing.

Decent living conditions should address vulnerabilities in society, be they economic shocks, safety in the living and working environment, or food security. This idea of security or vulnerability of living conditions has been captured in the following indicators: liquid asset poverty rate, household food security, and the availability of affordable housing.

Elements of Living Conditions

1. **Material Resources** — captures the extent to which the proportion of individuals have the minimum amount of resources necessary to survive and attain wellbeing, including the reliability of income and resilience to economic shocks.
2. **Nutrition** — assesses the availability, supply, and diversity of food intake available to individuals to allow them to participate in work, ensure cognitive development, and avoid ill-health.
3. **Water Services** — captures the accessibility, availability, and quality of water facilities required for human wellbeing.
4. **Shelter** — reflects the availability and affordability of accommodation as well as the population without any shelter.
5. **Connectedness** — assesses the proportion of individuals that have the ability to access the internet and communicate with members of society outside of their immediate geography.
6. **Protection from Harm** — assesses the safety of the environment in which individuals live and work. This includes accounting for traffic deaths and death from unintentional injuries.

58. Len Doyal and Ian Gough. *A theory of human need* (London: Macmillan International Higher Education, 1991).

59. Amartya Sen and John Muellbauer. *The standard of living* (Cambridge: Cambridge University Press, 1988).

60. Martha C. Nussbaum. *Women and human development: The capabilities approach* (Cambridge: Cambridge University Press 2001).

Health

Health has intrinsic worth, but it also has significant importance in facilitating well-being. Good health allows individuals to flourish and to lead more fulfilling lives than would otherwise be possible and it is shown to positively impact wellbeing. Ill-health can cause poor educational outcomes and can negatively affect productivity.

Health is included in the set of goods required for all individuals to attain wellbeing.⁶¹ Several studies have shown the link between good health and wellbeing, with mental health showing a stronger relationship than physical health.⁶² Conversely, ill-health has been shown to worsen life-satisfaction.⁶³

Health, alongside education, is often considered a key component of human capital, contributing to economic growth. A healthier workforce is more productive as fewer sick days are taken, people are physically and mentally able to work for longer, and there is a greater chance of developing experience.⁶⁴ Better health leads to more creativity and innovation, while poor health (such as stress) can lead to a narrowed perspective and lower productivity. Poor health during childhood can affect educational outcomes through worsening cognitive ability, so improving childhood and infant health is of particular importance for productivity outcomes, though reducing the impact of diseases that affect those of working age is equally important.⁶⁵

There are three conceptual ideas within the Health pillar. The first of these captures behaviors that affect health outcomes. The second captures the health care system, considering both preventative interventions and ongoing care and treatment. The third component captures health outcomes, which has been split into the length of life

of the population and the quality of the physical and mental health of the population.

Elements of Health

1. **Behavioral Risk Factors** — assesses the set of lifestyle patterns molded by a complex set of influences that increase the likelihood of developing disease, injury, or illness, or of suffering from premature death.
2. **Preventative Interventions** — captures the extent to which a health system prevents diseases, illnesses, and other medical complications from occurring, to improve quality of life and avoid premature death.
3. **Care Systems** — assesses the accessibility to the health care system, as well as the capacity of that health system to treat and cure diseases and illnesses once they are present in the population.
4. **Mental Health** — captures the level and burden of mental illness on the population. Mental health can have a significant impact on an individual's wellbeing and ability to participate effectively in the labour market.
5. **Physical Health** — assesses the level and burden of physical illness on the population. Physical health can have a significant impact on an individual's wellbeing and ability to participate effectively in the labour market.
6. **Longevity** — captures mortality rates at different stages in the lifecycle to differentiate the drivers of longer and shorter life expectancies.

61. Len Doyal and Ian Gough. *A theory of human need* (London: Macmillan International Higher Education, 1991).

62. Paul Dolan, Tessa Peasgood, and Mathew White. "Do we really know what makes us happy? A review of the economic literature on the factors associated with subjective wellbeing," *Journal of Economic Psychology* 29, no. 1 (2008): 94-122.

63. Ahmad Al-Windi, "The relations between symptoms, somatic and psychiatric conditions, life satisfaction and perceived health. A primary care based study," *Health and Quality of Life Outcomes* 3, no. 1 (2005): 28.

64. Robert J. Barro, "Health and economic growth," *Annals of Economics and Finance* 14, no. 2 (2013): 329-366.

65. WHO Commission on Macroeconomics and Health, Working Group 1 & World Health Organization. "Health, economic growth and poverty reduction," *World Health Organization*, 2002.

Education

Education is a building block for prosperous societies; the accumulation of skills and capabilities contributes to economic growth. Education provides the opportunity for individuals to reach their potential and experience a more fulfilled and prosperous life. A better-educated population also leads to greater civic engagement and improved social outcomes — such as better health and lower crime rates.

In general, better-educated workers have a greater choice of work and their skills are more in demand, leading to rises in individual earnings. Recent research has shown that one additional year of schooling results in a 9% increase in hourly earnings, with higher returns for women.⁶⁶

Improved education ultimately leads to productivity gains in the economy.⁶⁷ A labor force that is highly skilled and has the capacity to continually refresh or learn new skills will produce far more than a labor force of the same size that is unskilled. In the workplace, an individual's education will indirectly benefit others, as they are more likely to be productive and may boost the productivity of colleagues through training and management.

Education has been shown to indirectly increase the subjective well-being of individuals as a result of its positive effects on income, employment, health, and crime.⁶⁸ People with higher levels of education are less likely to be unemployed due to the demand of their skills in the workforce. There is evidence that a better-educated person will be healthier as they are more likely to have knowledge of health issues. Better cognitive skills also enable them to maintain better health, and the secondary effect of higher income allows increased health expenditure, and therefore better health outcomes.⁶⁹

While other institutional, legal, and social structures must be in place as well, education can help to empower marginalized parts of society

and reduce inequalities. For instance, a basic set of skills, such as being able to make basic inferences and locate needed information, can provide access to opportunity for the disadvantaged in society. Education can support the development of democracy through greater civic participation and social cohesion and has been shown to contribute to stronger social identity, more political engagement, greater tolerance of immigrants, and a cleaner environment.^{70,71,72}

Education can be conceptualized functionally in terms of access, attainment, and quality. Instead, we have incorporated these ideas into a framework that organizes education by level. Education has been split into the four stages of the U.S. education system and the skills of the adult population.

Elements of Education

1. **Pre-Primary Education** — captures the enrollment and quality of early years (Pre-K) education. Pre-school learning and early childhood development has been shown to improve the non-cognitive skills of children.
2. **Primary Education** — captures the enrollment, completion, and quality of education at the primary (K-12 Middle School) stage of education. The critical formative stage of schooling, where enrollment is near-universal, but where large variations in quality persist.
3. **Secondary Education** — captures the enrollment, completion, and quality of education at the secondary (K-12 High School) stage of education. Increased years of education (and its quality) improve life outcomes.
4. **Tertiary Education** — assesses enrollment, graduation, and quality of education at the tertiary stage, which includes community

66. Psacharopoulos, George, and Harry Anthony Patrinos. *Returns to investment in education: a decennial review of the global literature* (Washington D.C.: The World Bank, 2018).

67. Hanushek, Eric A., and Ludger Wößmann. *The role of education quality for economic growth* (Washington D.C.: The World Bank, 2007).

68. Dolan, Paul, Tessa Peasgood, and Mathew White. "Do we really know what makes us happy? A review of the economic literature on the factors associated with subjective wellbeing." *Journal of Economic Psychology* 29, no. 1 (2008): 94-122.

69. Wigley, Simon, and Arzu Akkoyunlu-Wigley. "Human capabilities versus human capital: gauging the value of education in developing countries." *Social Indicators Research* 78, no. 2 (2006): 287-304.

70. Acemoglu, Daron, Simon Johnson, James A. Robinson, and Pierre Yared. "From education to democracy?" *American Economic Review* 95, no. 2 (2005): 44-49.

71. Milligan, Kevin, Enrico Moretti, and Philip Oreopoulos. "Does education improve citizenship? Evidence from the United States and the United Kingdom." *Journal of Public Economics* 88, no. 9-10 (2004): 1667-1695.

72. "The wellbeing effect of education", *Economic and Social Research Council*, 2014: last accessed July 12 2019, <https://esrc.ukri.org/news-events-and-publications/evidence-briefings/the-wellbeing-effect-of-education/>.

colleges and universities. Tertiary education is increasingly important at a national level as the knowledge economy plays an ever-larger role.

5. **Adult Skills** — This captures the skill-base of the existing working-age population which is a reflection of the historic quality of education as well as providing a base level for the short-term potential of the economy.

Natural Environment

The Natural Environment pillar captures those elements of the physical environment that have a direct impact on the ability of people to flourish in their daily lives, as well as those that affect the prosperity of future generations.

At the basic level, ecosystems provide the resources for extraction upon which many economies depend. A well-managed rural environment yields crops, materials for construction, wildlife and food, and sources of energy. A healthy climate has an impact on many areas of society: industries such as agriculture rely on healthy soil and favorable weather in order to be fruitful, while recreational activities require that natural resources (such as lakes and reservoirs) are free from pollutants and are well managed. More directly, the quality of people's everyday lived experience is dictated by exposure to environmental health hazards such as air pollution.

Exploiting natural capital in the short term may well result in short-term economic growth. However, change of ecosystems should be managed to ensure degradation does not affect their long-term value.⁷³ Ecosystem degradation, by causing floods, increasing infectious diseases risk, and forcing population displacement, tends to affect the poor disproportionately. Therefore, environmental management is linked closely to poverty alleviation.⁷⁴

Ecosystems provide aesthetic, recreational, and educational services to the human experience, contributing to essential aspects of wellbeing; they can form our sense of identity and community.⁷⁵ Access to green spaces has a direct impact on mental and physical health and an indirect impact on wellbeing by enhancing interactions between

people, and therefore improving social cohesion and creating a sense of belonging.⁷⁶ Noise, temperature, pollution, and crowding increase stress and reduce the ability to cope as well as having detrimental effects on cognitive and social functioning.

The elements of the Natural Environment pillar reflect different aspects of the environment, and also preservation efforts, which encompasses the degree to which the natural environment is being protected for the future. The Emissions and Exposure to Air Pollution elements both cover air quality but distinguish between the effect the quality of the air has on the lived experience of a population and the contribution to damaging the quality of the air.

Elements of Natural Environment

1. **Emissions** — captures the level of emissions and air pollutants. This captures the long-term and short-term pressures placed on the local and global atmosphere due to atmospheric emissions.
2. **Exposure to Air Pollution** — assesses the effect of emissions on a population. This captures the harm and outcomes exposure to air pollution has at the present, regardless of where that pollution comes from.
3. **Forest, Land and Soil** — assesses the quality of land, forest, and soil resources.
4. **Freshwater** — assesses the availability and quality of freshwater, and the demands placed on that water availability.
5. **Preservation Efforts** — captures the extent of efforts to preserve and sustain the environment for future generations.

73. Assessment, Millennium Ecosystem. Ecosystems and human wellbeing. Vol. 5. (Washington, D.C.: Island press, 2005).

74. Ibid.

75. Ibid.

76. Helliwell, John F., and Christopher P. Barrington-Leigh. "Measuring and understanding subjective well-being," *Canadian Journal of Economics* 43, no. 3 (2010): 729-753.

ABOUT THE LEGATUM INSTITUTE

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CREATING THE PATHWAYS FROM POVERTY TO PROSPERITY

PROSPERITY INDEX

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