Mokyr on Ideas, Useful Knowledge, and Institutions: "Economic change in all periods depends on what people believe."

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November 2019

A Culture of Growth is based on the lectures Joel Mokyr delivered at the Schumpeter Society in Graz and draws upon his extensive research into technological advancement, showcased in his influential works like *The Lever of Riches* (1992), *The Gifts of Athena* (2002), and *The Enlightened Economy* (2010). A key theme throughout his research is that ideas drive economic development, emphasizing that economic transformations are deeply influenced by societal beliefs. Mokyr deepens his earlier explorations by analyzing how cultural and institutional changes fostered a community of intellectual innovators, linking this evolution to broader economic debates about the impact of culture.

In *A Culture of Growth*, Mokyr expands his argument, demonstrating how cultural entrepreneurs—intellectuals who innovate and reshape beliefs—played a crucial role in advancing knowledge. He argues that the European Enlightenment fostered a unique environment where cultural shifts aligned with institutional changes, creating fertile ground for economic progress. This evolution was not just about scientific and technological advancements but was intertwined with broader cultural and institutional transformations that supported and spread useful knowledge. By linking these historical insights to contemporary economic theories, Mokyr offers a nuanced perspective on the dynamic relationship between culture, institutions, and economic growth.

- Joel Mokyr's *The Enlightened Economy* reflects on the idea that modern economic growth, particularly during the 18th-century Age of Enlightenment, was heavily influenced by what people knew and believed, and how those beliefs impacted their economic behavior.

Mokyr emphasizes the importance of confronting the economic implications of the Enlightenment, suggesting that the intellectual and philosophical developments of the time were key drivers of economic change. He references Hegel, noting that thought and philosophy shaped the world people constructed, as evidenced by the transformative effects of the French and American Revolutions. This raises the question of whether ideology and culture, such as those emerging from the Enlightenment, influence economic outcomes.

Mokyr contrasts two views on this question. On one side are thinkers like Karl Marx and many modern free-market economists, who believe that economic interests—shaped by deeper forces like technology, geography, and demography—determine people's beliefs and ideologies. In this view, ideology is a product of the material economic environment (a form of "historical materialism"), meaning that economic circumstances dictate cultural beliefs, not the other way around.

On the other side are those, like John Maynard Keynes, who argue that ideas and ideologies have a more independent and significant impact on economic outcomes. Keynes famously suggested that it is not vested interests (economic self-interest or power) that shape economic change, but rather ideas and philosophies that, over time, have the potential to be transformative—whether for good or ill. Mokyr aligns with this latter view, emphasizing that ideas, particularly those from the Enlightenment, played a critical role in shaping economic behavior and driving modern economic growth.

Mokyr argues that the interaction between people's beliefs, knowledge, and their economic actions played a crucial role in shaping historical economic change, but this relationship was complex and highly dependent on specific historical circumstances. In the case of 18th-century Britain, this interaction between ideas and economic behavior led to a "positive feedback loop" that triggered the Industrial Revolution—a transformative period that marked the beginning of sustained economic growth on a global scale. This event was the most significant economic transformation since the development of agriculture.

Mokyr emphasizes that this interaction was *historically contingent*, meaning that it was shaped by a unique set of conditions that came together at that particular time in Britain. It was not an inevitable outcome but rather the result of a combination of factors, such as intellectual developments during the Enlightenment, technological innovations, political stability, and institutional changes. These factors interacted in ways that were not preordained or guaranteed to happen, but, under the right circumstances, they produced the economic revolution that led to industrialization and long-term economic growth.

In other words, the Industrial Revolution wasn't simply the result of technological advancements or economic policies alone—it was also deeply influenced by what people believed and understood at the time. Ideas about progress, innovation, science, and economic organization helped shape their actions, driving the profound changes in production, industry, and commerce that characterized the Industrial Revolution. This combination of beliefs and economic actions created a unique moment in history where rapid economic transformation became possible.

Mokyr emphasizes the significant role that the beliefs and ideas of intellectuals, scientists, skilled mechanics, inventors, and entrepreneurs played in driving the economic transformations during the Industrial Revolution, potentially even more so than the beliefs of rulers and policymakers. While it may seem natural to assume that the laws and regulations imposed by political leaders were the key factors shaping the economy, the author argues that the intellectual and innovative contributions of these creative individuals were perhaps more

important in facilitating the Industrial Revolution and the resulting economic growth.

The distinction here is crucial: **rulers and policymakers** establish the formal rules of economic activity, such as taxes, regulations, and trade policies, which certainly shape the environment in which people operate. However, the **intellectuals and innovators**—those who created new knowledge, inventions, and technological advancements—had a transformative effect on how the economy functioned, introducing new ways of producing, distributing, and organizing economic activity that reshaped the entire system. For example, the work of inventors like James Watt (with his improvements to the steam engine), or entrepreneurs like Richard Arkwright (in textile manufacturing), were key drivers of industrialization.

Ideas do not develop in a vacuum**; rather, they are fostered by specific social and economic conditions. In particular, **commercial and urban societies**, such as those emerging in Britain during the 18th century, provided an environment in which people could devote themselves to thinking, inventing, and analyzing, instead of working solely in manual labor, especially in agriculture. These societies could support a "substantial number of people living by their wits"—that is, people whose primary work involved intellectual pursuits, innovation, and problem-solving.

Such societies were often characterized by bustling cities, growing commercial activity, and a more diverse economy that allowed for the rise of universities, workshops, and informal intellectual networks. These environments fostered **competition in the marketplace of ideas**, where thinkers, inventors, and scientists could share their insights, test hypotheses, and build on one another's work. In these urban and commercial settings, ideas circulated freely, leading to innovations that were essential to industrial and economic growth.

In sum, Mokyr is making a key point about the social and intellectual infrastructure necessary for progress: while rulers and policymakers influence the formal structure of the economy, the **creativity and ideas of individuals working in intellectual, scientific, and mechanical fields** were the real engines driving the Industrial Revolution. Their innovations were made possible by the conditions of commercial, urban societies that allowed them the freedom and resources to think, create, and compete, which led to transformative economic advancements.

Ideas, much like species in nature, underwent a process of **competitive natural selection** in the intellectual environment of the 18th century, particularly during the Industrial Revolution and the Enlightenment. In this intellectual "marketplace," various ideas were proposed, debated, tested, and either adopted or discarded based on their perceived utility, relevance, and impact. This process of competition among ideas had profound consequences for the development of modern political and economic systems.

1. Ideas Competing for Dominance:

Just as species in the natural world must adapt to survive, ideas during this period had to demonstrate their practical value or persuasive power in order to be embraced by society. For example, the idea of a free market economy,

championed by thinkers like Adam Smith in *The Wealth of Nations*, competed against older economic models such as mercantilism, which emphasized state control over trade. Over time, as economic thinkers and policymakers observed the greater efficiency and productivity brought about by less regulated markets, the ideas of free trade and capitalism "won" in this competitive intellectual landscape.

Similarly, **scientific and technological ideas** also competed for dominance. The practical benefits of steam engines, mechanized textile production, and innovations in metallurgy were quickly recognized as superior to older, less efficient methods of production. In this case, ideas around industrialization and mechanization proved victorious, leading to the rapid adoption of new technologies that spurred economic growth.

However, not all ideas gained traction. Some philosophical or technological concepts were either ahead of their time, not feasible, or too impractical in the context of the existing social, political, or economic structures. For example, while early socialists and utopian thinkers presented ideas about communal living and equitable distribution of wealth, these ideas were often overshadowed by the emerging capitalist model, which aligned better with the economic needs and aspirations of the time.

2. Changes in the Intellectual Environment:

Through this process of competition and selection, the **intellectual environment evolved**. As certain ideas became dominant, they reshaped the way people thought about politics, economics, society, and even the role of government. The rise of Enlightenment ideals like individual liberty, empirical reasoning, and the pursuit of scientific knowledge redefined the goals and structures of governments and economies. These ideas encouraged innovation, experimentation, and reform, leading to the modernization of political systems (e.g., the rise of constitutional governments) and economic systems (e.g., the shift from agrarian economies to industrialized, market-driven ones).

For instance, the growing belief in **rationality and progress** during the Enlightenment led to the spread of democratic ideas, the push for universal education, and the establishment of more egalitarian political structures. Monarchies began to evolve into constitutional systems, and political power became increasingly subject to checks and balances. These shifts in governance were a direct result of the "victorious" ideas that emerged from this intellectual competition.

3. Far-reaching Consequences for Modern Polities and Economies:

The **victorious ideas** that emerged during this period laid the foundation for the modern political and economic systems we know today. In politics, the ideas of democracy, individual rights, and the rule of law, which gained momentum during the Enlightenment, led to the creation of modern democratic states. The American and French Revolutions are prime examples of how these new political ideas manifested in the creation of new, more egalitarian political systems.

In economics, the embrace of capitalism, free markets, and industrialization radically transformed societies. The Industrial Revolution brought about not

just new technologies but also a new economic order, where productivity and growth became central objectives. The ideas of competition, innovation, and market efficiency reshaped the global economy, leading to the rise of industrial economies that were vastly more productive and wealth-generating than the agrarian systems that preceded them.

This shift in economic thinking had a profound impact on how economies were organized and operated. Entrepreneurs and inventors became key figures in driving economic growth, and ideas that encouraged technological progress and free enterprise flourished. By the 19th century, the economies of Britain, the United States, and other industrializing nations had fundamentally changed, driven by the ideas that proved victorious during the intellectual competition of the previous century.

4. Continuous Evolution of Ideas:

Importantly, this process of competitive natural selection among ideas didn't end with the Industrial Revolution or the Enlightenment. It continues today, as new political, economic, and technological ideas emerge and compete for acceptance. Modern political debates about socialism versus capitalism, or discussions around the role of government in regulating technology, are part of this ongoing competition of ideas. The ideas that prove most effective at addressing the challenges of the time tend to gain dominance, shaping the future course of political and economic systems.

In summary, the process highlights how the **intellectual environment** is constantly evolving as new ideas compete for acceptance. The ideas that prove most successful—whether in terms of political philosophy, economic theory, or technological innovation—shape the development of modern polities and economies. The **Industrial Revolution and Enlightenment** were periods of intense intellectual competition, and the ideas that "won" during these times had far-reaching consequences, laying the groundwork for the political and economic systems that characterize the modern world.

- Mokyr's analysis in *A Culture of Growth* emphasizes that the modern economic growth period was driven by cultural and intellectual transformation. He argues that two central changes were pivotal: the belief in humanity's ability to understand nature and the development of a system to acquire and disseminate that knowledge. This system was embodied by the *Republic of Letters*, a transnational scholarly community.

Cultural change was gradual and resulted from intellectual innovation, persuasion, and diffusion. Cultural entrepreneurs introduced new ideas, which persuaded other intellectuals, leading to shifts in beliefs and attitudes. These changes eventually affected technology directly (altering perceptions of the natural world) and indirectly (establishing norms that encouraged knowledge accumulation and diffusion).

Mokyr explains that these new norms included openness to diverse views, rigor based on proof and reproducibility, and collaborative attitudes that fostered the exchange of discoveries. The *Republic of Letters* evolved into the

Republic of Science, laying the groundwork for the continuous exchange of ideas that shaped the eighteenth and nineteenth centuries.

He stresses that this cultural evolution was accompanied by complementary institutional changes. However, unlike traditional views that focus on government-enforced rules for property rights, he highlights the importance of social norms and informal rules that fostered a "market for ideas." This informal market facilitated the exchange of non-rival goods like discoveries and innovations, promoting sustained technological and economic progress.

In particular, he emphasizes the concept of "useful knowledge" as a critical factor in the development of economic growth during the Industrial Revolution. Mokyr defines useful knowledge as practical, technical, and scientific understanding that can be applied to solve problems and enhance productivity. He argues that the shift towards valuing and systematically expanding this type of knowledge was crucial for Europe's economic development. This cultural shift, supported by institutions and intellectual networks, fostered innovation and technological progress, setting Europe on a path of sustained growth.

Mokyr highlights how Europe's intellectual climate during the Enlightenment encouraged the collection, exchange, and application of knowledge in a way that was pragmatic and aimed at improving the material conditions of society. This focus on "useful" rather than purely theoretical or philosophical knowledge meant that ideas could be readily transformed into inventions and techniques that fueled economic progress.

Mokyr's analysis challenges the traditional view that culture and institutions are separate explanations for economic growth. He argues that these two elements are intertwined, evolving together in a mutually reinforcing manner. Cultural beliefs shape institutions, and institutions, in turn, support and reinforce these cultural norms, creating a feedback loop essential for economic progress. This idea emphasizes that culture provides the legitimacy needed for institutions to function effectively, and that without a supportive cultural foundation, institutions alone cannot drive growth.

He illustrates this through historical examples, showing how Enlightenment-era cultural shifts in Europe—like the emphasis on reason, empiricism, and progress—laid the groundwork for institutions that supported knowledge exchange, such as scientific societies and academies. These institutions thrived precisely because they were embedded in a cultural context that valued innovation and the pursuit of knowledge. Mokyr's perspective highlights the importance of these social norms, arguing that they facilitated the creation of a market for ideas and knowledge, which was critical for economic advancement. This market functioned not through government-enforced regulations, but through informal rules and norms that fostered collaboration, tolerance for dissent, and a rigorous approach to scientific inquiry.

Mokyr's work aligns with other economic scholars who emphasize the interaction between culture and institutions. For example, Greif, Tabellini, and others have shown how cultural factors like trust, cooperation, and individualism influence the effectiveness of institutions. Mokyr builds on these insights by demonstrating that cultural change, driven by intellectual innovation and social

interactions, shaped not only technology but also the social rules that supported knowledge accumulation and diffusion. The informal institutions and norms he highlights—such as the Republic of Letters and later the Republic of Science—were crucial for creating a transnational network of scholars who exchanged and built upon each other's ideas, propelling technological and economic growth.

- Mokyr's approach underscores that economic progress cannot be understood purely through the lens of formal institutions like property rights. Instead, he argues that informal networks, cultural beliefs, and social norms played an equally, if not more, vital role. These norms established a supportive environment for the sharing and development of new ideas, creating the conditions necessary for modern economic growth. This perspective provides a deeper and more integrated understanding of how cultural and institutional changes coevolved to shape the modern economy.

Mokyr's analysis is significant because it offers precise and testable hypotheses regarding the factors that drove modern economic growth. He argues that the key changes were a new belief in humanity's capacity to understand and manipulate nature, coupled with the establishment of systems to gather and spread knowledge, spearheaded by a transnational network of scholars known as the *Republic of Letters*. This transformation wasn't merely technological; it was fundamentally cultural, driven by intellectual innovation, persuasion, and widespread diffusion of new ideas.

Cultural Change and Intellectual Innovation

Mokyr emphasizes that cultural change was the primary driver of economic growth, evolving through individual actions and social interactions. Cultural entrepreneurs—those who introduced new ideas—played a crucial role in this transformation. Other intellectuals were then persuaded by these pioneers, adopting new beliefs and attitudes. Over time, these cultural shifts permeated society, altering attitudes towards the natural world, and establishing new social norms and habits conducive to acquiring and spreading knowledge.

Development of New Social Norms

The emergence of these social norms was vital for technological and economic development. The cultural revolution included an openness to diverse, sometimes controversial views, and the establishment of rigorous standards based on evidence, reproducibility, and experimentation. This approach encouraged the scientific community to prioritize collaboration and transparency, fostering an environment where ideas could be exchanged freely and innovation could thrive.

These new norms provided the foundations for intellectual communities like the Republic of Letters in the seventeenth century, which eventually evolved into the Republic of Science in the eighteenth and nineteenth centuries. The shared practices and values within these communities were essential for the continuous exchange and improvement of ideas, making them instrumental in advancing knowledge and technology.

Cultural and Institutional Co-evolution

Mokyr highlights that the cultural transformation was accompanied by significant institutional changes. However, unlike many economic analyses that

focus on government-enforced rules, such as the protection of property rights, Mokyr focuses on informal social norms. These norms and informal rules helped to build a market for non-rival goods—ideas, discoveries, and innovations—essential for economic progress.

By emphasizing the role of culture and informal institutions, Mokyr presents a comprehensive view of how cultural shifts and the development of new intellectual norms, alongside informal institutional changes, were critical in shaping modern economic growth. His analysis demonstrates that economic development is not solely about physical resources or formal rules but also hinges on the cultural and social frameworks that support innovation and the dissemination of knowledge.

- Before the Industrial Revolution, economic growth was primarily driven by what is often referred to as **"Smithian growth"**, a concept based on the ideas of the economist **Adam Smith**.

This type of growth relies on the **expansion of commerce**, the **growth of markets**, and the **improved allocation of resources**. Adam Smith observed that when two regions trade with each other, both benefit because trade allows them to specialize in what they are most efficient at producing. The key idea is that trade and specialization increase productivity and wealth in both trading partners.

Key Aspects of Smithian Growth:

1. **Commerce and Market Expansion:** Between 1450 and 1750, trade between different regions expanded significantly. This increase in trade contributed to economic growth, particularly in **Western Europe**, which benefited immensely from this commercial expansion.

2. **Growth of Useful Knowledge:** Many of the advancements that facilitated Smithian growth were due to improvements in **knowledge**. This included better ship design, advances in **navigation techniques**, expanded **geographical knowledge**, and the discovery of **new trade routes** and trading partners. This new knowledge made international trade easier, faster, and more profitable.

3. **Improved Institutions and Rule of Law:** Trade was also facilitated by the creation of **stronger institutions** that protected the rule of law. These institutions reduced the risks of trade by eliminating piracy, improving the enforcement of contracts and property rights, and providing mechanisms like **credit**, **insurance**, and reliable information. By reducing risks and ensuring that trading partners would uphold their agreements, these institutions played a major role in promoting economic growth by making markets function more efficiently.

4. **Better Allocation of Resources:** Economic growth also came from improvements in the **allocation of resources**. When labor or capital is moved from less productive to more productive uses, the overall output increases. This reallocation can be facilitated by improving **market structures** and the institutional framework that supports economic activity. As these markets became

more efficient, they allowed for the better distribution of resources, which contributed to economic expansion.

Examples of Smithian Growth:

In different parts of Europe, Smithian growth led to the creation of considerable wealth. For example, regions like **northern Italy**, the **Low Countries**, **southern Germany**, and **England** all experienced commercial success before the Industrial Revolution. The **Dutch Golden Age** in the 17th century is a key example of Smithian growth. The Dutch economy flourished due to international trade, shipping, and industries that served global markets, such as **sailcloth weaving**, **papermaking**, and **sugar refining**. Although the economy relied heavily on commerce, productivity increased in these industries through **innovation** and competition, which allowed the Dutch to remain competitive in international markets.

Technology's Role in Smithian Growth:

Although **technological change** played a role in increasing productivity during this period, it was often secondary to the main drivers of commerce and institutional improvement. While there were technological innovations, such as improvements in production methods and tools, these were generally viewed as **auxiliary sources of power**—they supported and enhanced the gains made through improved trade and markets but were not the primary engines of growth. Commerce, institutions, and the expansion of markets were the driving forces.

Summary of Smithian Growth:

In summary, **Smithian growth** is characterized by the **expansion of trade** and **markets**, **specialization**, the **better allocation of resources**, and the **improvement of institutions** that supported economic activity. It was a period of economic progress where increased trade, improved knowledge, and better-functioning markets created wealth. Technology played a supportive role, but the primary source of economic growth came from **commercial expansion** and the development of **institutional frameworks** that ensured markets worked efficiently and fairly. This kind of growth was widespread in Europe before the Industrial Revolution, contributing to the prosperity of regions like the Low Countries and England.

- Key shifts in economic resources and population dynamics during and after the Industrial Revolution.

Shift to Minerals and Fossil Fuels:

The **Industrial Revolution** marked a dramatic shift in the foundation of the economy from **organic resources** (wood, animal, and human power) to **minerals** and **fossil fuels** (iron, steel, and coal). This shift significantly expanded the resources available to the economy, allowing for far greater industrial output. Iron and steel became key materials for building machinery, infrastructure, and transportation (like railroads and ships), while coal replaced human, animal, and even traditional sources of energy like wood in fueling machines and factories.

For example, **coal-powered steam engines** were crucial in driving machinery during the Industrial Revolution. This transformation allowed Britain to produce more goods, power larger industries, and transport resources and finished products more efficiently. The switch from organic resources to mineral-based resources enabled large-scale industrialization, making it possible to exponentially increase production capacity.

However, this view may somewhat understate the importance of **non-organic energy sources** like **wind** and **water power**, which were already being used before 1700. Windmills and watermills played significant roles in pre-industrial economies, helping to power grain mills and other machinery. Nevertheless, the description of the Industrial Revolution's reliance on coal and minerals is generally accurate in terms of its overall impact on economic growth and industrial output.

Exploitation of Natural Resources:

The increased use of natural resources in the 18th century did not result primarily from **demand-side pressures**—in other words, it wasn't just that people or industries were asking for more resources. Instead, it was driven by the fact that **knowledge about how to extract, transport, and use mineral resources** was improving. This knowledge allowed for more efficient and effective exploitation of Britain's mineral wealth, particularly coal and iron. Innovations in mining, such as improved ventilation and water pumps, allowed deeper extraction of coal and other minerals. The growth of railways and canals also made it easier to transport these resources across the country.

Britain also increasingly relied on **imported resources** from other countries, especially food. As the British economy became more industrialized, it required less domestic agricultural production and could import food from nations with better agricultural land and a comparative advantage in farming. For example, the United States and other countries with vast agricultural lands began exporting grain to Britain. This shift allowed Britain to focus on producing **manufactured goods** and **minerals** for export while importing food more cheaply than it could produce domestically.

Export of Manufactured Goods and Minerals:

To pay for these food imports, Britain exported **manufactured goods** and **minerals**. The country became the "workshop of the world" by producing textiles, iron goods, machinery, and other industrial products. The British economy grew because it specialized in **industrial production** and exported these goods to other countries in exchange for agricultural products and raw materials.

This system worked well for Britain because it had the industrial capacity to produce high-value goods and a growing global market to sell them to. Its colonies and trading partners provided both a market for British goods and a source of cheap raw materials, which Britain would transform into finished products for export.

Declining Fertility and Population Growth:

Another major shift during this period was in **population dynamics**. The population of Britain continued to grow, but by the 19th century, **income

growth began to outpace population growth**. This development was critical because it meant that per capita income was rising, leading to improved living standards and more wealth being generated on a per-person basis.

One of the reasons for this shift was a **decline in fertility rates**. By having fewer children, families could allocate more resources to each child, which led to improvements in education, health, and overall productivity. As fertility rates dropped, the gap between **income growth and population growth** widened, leading to a rapid improvement in living standards during the 19th century. This demographic change contributed to Britain's sustained economic growth by ensuring that the population did not outstrip the economy's capacity to provide for it.

In summary:

- The Industrial Revolution shifted the economy's energy base from organic resources like wood and animal power to minerals like coal and iron, facilitating greater industrial output and efficiency.

- The exploitation of natural resources increased due to improvements in knowledge about extraction and transportation, not just rising demand. Britain also relied heavily on importing food from nations with better agricultural land, while exporting manufactured goods and minerals.

- As fertility rates declined and income growth outpaced population growth, living standards improved, further fueling Britain's economic expansion. This interplay between resources, trade, and demographic changes helped lay the foundation for modern economic growth in Britain.

- In recent years, more economic historians, influenced by the pioneering work of Douglass C. North, have begun to focus on the role of institutions in shaping economic outcomes. Institutions refer to the rules and norms by which economic interactions are governed, and these rules are often shaped by the beliefs and expectations of the people who follow them. Understanding how these institutions function is key to understanding long-term economic development.

For much of history, the greatest threat to economic growth wasn't overpopulation or scarcity of resources, but rather the existence of "predators, pirates, and parasites." These groups, often referred to as “rent-seekers” by economists, preferred to take wealth from others rather than create it through productive activities. Rent-seekers could be individuals or groups who used their power or position to extract wealth without contributing to economic growth. This included corrupt officials, monopolistic guilds, local monopolists who controlled trade and production, tax collectors who abused their positions, and even armies that invaded and looted.

In many cases, these rent-seekers stifled economic activity by taking the profits and resources of those who were engaged in productive work. For example, guilds that tightly regulated who could enter certain trades or professions limited innovation and economic dynamism, while corrupt officials might demand bribes or unfair taxes, discouraging entrepreneurial activity. In these environments, the potential for economic growth was undermined by these extractive

practices, as people found it harder to generate and keep wealth, and so they were less incentivized to engage in productive economic activities.

This focus on rent-seeking explains how institutions—rules and regulations that create a stable environment for economic transactions—play a critical role in fostering or hindering economic growth. When institutions are designed to limit the power of rent-seekers and ensure fair, transparent governance, they enable economic development. But when institutions fail, or when they protect the interests of rent-seekers, they can destroy the conditions necessary for sustained economic growth. Understanding the nature of these institutions and their evolution helps explain why some societies prosper while others stagnate.

- The role of **rent-seeking**, institutional changes, and technological limitations in the economic growth of Britain and Europe before and during the Industrial Revolution.

1. Rent-Seeking and Its Impact on Economic Activity:

Rent-seeking refers to individuals or groups who use their political power or influence to extract wealth from others without contributing to productivity. Examples include tax collectors, monopolists, guilds that controlled trade and production, corrupt officials, or even foreign armies that besieged and taxed wealthy cities. Instead of creating value through economic activity, these rent-seekers "pillage and plunder" the productive efforts of others, which can stifle economic growth.

In pre-industrial Europe, many wealthy towns—like Milan, Antwerp, and Magdeburg—became targets of **envy and greed** from neighboring powers, who besieged and taxed them, often leading to the decline of their economic prosperity. Even cities like **Venice** or the **Dutch maritime provinces**, which had some geographical protection from foreign invasions, had to devote much of their economic surplus to defense, limiting how much of their wealth could be reinvested in further economic growth.

2. Britain's Unique Situation:

Britain's geographical advantage—being an island—offered some protection from external threats, as evidenced by its defense against the **Spanish Armada**. However, being an island did not fully guarantee safety, as **Ireland** and the **Philippines** experienced invasions despite their insular geography. What set Britain apart, however, was that it became adept at **restraining internal rent-seekers**, specifically the **King**. The British system, particularly after the **Declaration of Rights of 1689**, limited the King's ability to impose taxes without parliamentary approval. This was a significant step in curbing one form of rent-seeking, allowing for a more stable and less predatory political environment.

Despite these developments, **rent-seeking** persisted in 18th-century Britain. Rules, regulations, and privileges still allowed certain groups to siphon wealth from productive activities. For instance, **mercantilism**—a system that promoted government intervention and monopolies in trade—was a formal manifestation of rent-seeking, where specific industries or companies benefitted from government protection, restricting competition and innovation.

3. Mercantilism and Institutional Change:

In much of Europe around 1700, governments formed alliances with economic interests that benefitted both parties: **governments gained tax revenues** while **special interests**—such as monopolies or guilds—gained protection from competition. However, **Britain** was unique in that it began to **question the legitimacy** of these monopolies and privileges earlier than most other countries. Increasing criticism was directed at institutions that restricted economic freedom, like **monopolies, guilds**, and **workers' combinations** (unions), which constrained economic activity and innovation.

In Britain, these **restrictive institutions** were gradually dismantled in the 18th and 19th centuries, leading to an economic environment more oriented toward **free markets**. **Liberal economists** such as **Adam Smith** criticized the "mercantile system," which prioritized state intervention in the economy, monopolies, and trade protectionism. As the British government began to curb monopolies and loosen economic regulations, the country moved toward a system where economic liberty, competition, and market forces were increasingly prioritized.

4. Britain's Gradual Liberalization and Economic Growth:

While other parts of Europe, such as France, experienced **revolutionary changes** (e.g., the French Revolution and its aftermath), Britain's shift toward economic liberalization was more **gradual** and less dramatic. Over time, Britain increasingly embraced **economic liberty**, leading to higher competitiveness and more open markets. By the time of **Queen Victoria's reign**, Britain had evolved into a largely **laissez-faire** economy, where the role of government intervention was minimized, and **rent-seeking** was significantly reduced.

This transition to a more liberal economy—where **market forces** and **free enterprise** played central roles—was one of the most important institutional changes that helped set the stage for **sustained economic growth**. It allowed for greater innovation, competition, and efficiency, which were crucial for industrialization.

5. Importance of Institutional Agility:

A **successful economy** requires institutions that create the right incentives for commerce, innovation, and finance. However, there is no single set of **universally optimal institutions**. What is crucial is that institutions are **agile**—able to **adapt** to changing circumstances. The rules of the economic game (e.g., trade regulations, tax policies, property rights) need to evolve as the economy grows and changes. For this to happen, there must be **meta-institutions**—institutions that have the power to change other institutions. These changes need to be accepted even by those who may initially lose out from the reforms.

Institutional change, however, does not happen simply because it is efficient. It often requires shifts in the **ideas and beliefs** of key stakeholders, such as policymakers, intellectuals, and the public. This highlights the role of **ideology and culture** in shaping economic outcomes. In 18th-century Britain, changing attitudes toward monopolies, free trade, and economic regulation helped drive

institutional reforms that promoted growth.

6. The Role of Technology and Knowledge:

While institutional changes were necessary for economic growth, they were not sufficient on their own. Another key factor holding back pre-Industrial Revolution economies was the **limited technological knowledge** available at the time. Many of the economic challenges, such as low productivity and bottlenecks in production, could not be solved because people did not yet have the **technological solutions** to overcome these limitations.

For example, industries like **textile manufacturing** faced constraints in productivity until inventions like the **spinning jenny** and the **power loom** revolutionized production. Similarly, the development of **steam engines** unlocked new levels of industrial efficiency by providing a more reliable and powerful source of energy. These technological breakthroughs were essential for breaking through the limitations that had previously held back productivity and sustained growth.

The complex interplay of **rent-seeking**, institutional change, and technological progress in shaping economic growth before and during the Industrial Revolution. Britain's relative success in curbing rent-seeking, fostering a more liberal economic environment, and adapting its institutions helped set the stage for sustained economic development. However, it was also crucial that technological knowledge advanced alongside these institutional changes, as innovations in technology were needed to overcome the productivity bottlenecks that had previously limited economic growth. Both **institutional agility** and the growth of **useful knowledge** were key drivers in making sustained economic growth possible during this transformative period.