Have you ever wondered how the economy works - how millions of individuals can buy and sell goods and services without a master coordinator? Have you wondered why we use money, rather than bartering our services with each other? Why do some nations prosper, while others stay poor despite vast natural resources?

Basic Economics by Stanford economist Thomas Sowell is an incredibly useful, broad introduction to economics. Containing no math, it instead communicates intuitive principles that will help you understand how market transactions work and the effect of policies on the economy.

In this Basic Economics summary, learn why:

- Rent control intended to allow affordable housing for the poor can actually make life worse by reducing housing supply and quality
- Setting a higher minimum wage leads to more unemployment and disadvantages youth and minorities
- Why payday lenders are justified in charging high interest rates and fees
- Why raising tax rates may not lead to higher tax revenues
- Why brand names exist, and how they reduce variance in quality
Caveats

Basic Economics describes generalizations at an introductory level. I’m sure there is a litany of exceptions and errors that would look silly to anyone who’s seriously studied economics. But from what I’ve gathered, the principles are by and large true.

One-Page Summary of Basic Economics

- Economics is the study of the use of scarce resources that have alternative uses, and how to allocate these resources to maximize output.
  - Economics is not about making moral judgments, just as mathematics doesn't explain love.
- Market economies use prices to allocate scarce resources. Prices allow individuals to bid higher for goods that have more value to them. Prices connect market participants in a complex network without a central coordinator.
- Prices allow producers and consumers to ignore why things are getting cheaper or more expensive - they can simply make decisions based on prices alone.
- Prices provide financial incentives - profits and losses - to affect behavior in the use of resources. Losses force producers to stop producing what consumers don’t want, thus shifting resources from wasteful to more productive activities.
- Profits are the cost to society for efficiency. If profits were counterproductive, you'd see nonprofits taking over for-profit industries, or socialism providing higher standards of living than capitalism - but in reality the reverse is more likely to happen.
- People simply do better jobs when they have a personal incentive to do a better job, compared to when they don’t. [This may occur due to deep biological reasons, not explained in the book.]
- Consumers tend to buy more at a lower price and less at a higher price. Similarly, producers supply more at a higher price and less at a lower price.
- Capital, like any other resource, tends to flow to its most productive uses. It can complement and compete with labor.
  - Capital investments pool resources from many stakeholders to finance large projects that would not be possible with few investors. Laws that make investments difficult may prevent these projects from happening.
- Money facilitates the production and distribution of wealth. Barter of goods and services is awkward - you have to spend time finding someone who produces something you want. Money allows chairs and apples to be exchanged for an intermediary thing, which can be subdivided into very small units.
- Governments serve the function of enforcing rules, like property rights, that allow market transactions to occur. They also guard against negative externalities of transactions (like a coal plant polluting air).
- International trade is not a zero-sum game, where one country is a winner and another is a loser. Both sides must gain or it makes no sense to trade. There is no fixed number of jobs for countries to fight over - when countries become more prosperous, they tend to create more jobs. Trade may be helpful due to absolute advantages or comparative advantages.
- The vast differences in wealth between people living in different countries can be emotionally
troubling. However, Thomas Sowell argues that given the vast differences in factors underlying economies (geography, natural resources, culture), as well as the interaction of such factors over millenia, it is impossible to expect economic equality across the world.

- When setting economic policy, it’s important to understand 1) the inherent tradeoffs, 2) the policy’s **consequences and incentives**, rather than their **intention**. Policies that sound good may have terrible second- and third-order effects.

- **Politicians have different incentives from those of their constituents.** Their main incentive is to be re-elected, so they tend to enact popular-sounding short-term policies that have negative long-term effects. They subsidize vociferous small groups of voters at the expense of taxpayers as a whole. They also have incentive to spend taxpayer money that is not their own.

- When prices are artificially altered relative to their natural market price, inefficiencies result, causing **market distortions**.
  - Rent control causes artificially low prices, causing undersupply and overconsumption of housing.
  - Minimum wage laws cause artificially high prices, reducing employment and increasing discrimination (since they flatten a range of workers into a single price).

- **Regulation enabling private monopolies causes artificially high prices, reducing consumption** (eg limits in taxicab medallions caused higher prices and less taxi riding; Uber dismantled this)

- **Economic statistics may be misleading based on their definition.**
  - Income distributions are misleading because the poorest brackets are often made up of younger workers early in their careers, who will ascend to higher brackets with time.
  - Household income is misleading because the size of households may change - so per capita income may rise, while household income decreases with decreasing household size.
  - Unemployment rates are deceptive because it uses the people who are looking for jobs as the base. If people stop looking, they’re not counted in the base.

**What is economics?**

Economics is the **study of the use of scarce resources that have alternative uses.**

Examples of resources include land, labor, natural resources, and capital. There has never been enough resources to satisfy everyone **completely** - tradeoffs **must** be made on an individual and societal level. The decisions around **how to allocate these scarce resources to produce the best output** is the central question of economics.

As an analogy, in a battlefield with wounded soldiers, there are never enough doctors and nurses to go around. Some wounded are past the point of being saved, others have a chance if they get urgent care and will die if they won’t, and others will recover without any urgent treatment. Thus the limited medical resources must be allocated to maximize output - this is an economic problem.

The allocation of resources is critical to a nation’s wealth. There are poor countries with rich natural resources, and rich countries with few natural resources.
Economics is a study of **causes and effects**. Therefore, economic policies are important to judge by their **consequences and incentives**, rather than their goals and motivations. A well-meaning policy can have terrible unintended consequences, sometimes buried in second-order and third-order consequences.

**Prices**

The first section of *Basic Economics* deals with prices - their function in the economy, how they allocate resources, and dispelling popular myths about prices.

**How does a market economy decide how to allocate resources?**

The straightforward way is for a central authority to decide what to do. In a feudal economy, the lord tells people what to grow and how to sell it. The Soviet Union operated similarly, with the government determining how much steel to produce in Bulgaria and how much wheat to be grown in Ukraine.

The problem with this method is that economies are so complex, with many millions of products and services, that **allocating resources optimally across millions of items is incredibly difficult**. Counterproductive incentives also arise, as we’ll discuss later.

Instead of a central authority, **market economies use prices to allocate scarce resources.**

On a micro-level, each consumer and producer makes transactions with other individuals on whatever terms they can agree on. The terms often consist of prices. Even though a market economy has millions of goods with millions of prices, **each party in the transaction just needs to keep track of the few prices relevant to their own decision-making, not the entire economy’s prices.** For example, a camera lensmaker doesn’t need to know that museum photographers can’t use flash and need complex optics to take in low light - she can simply charge more for a more complex product, and let demand sort itself out. A complex reality is summarized in a single number - the price.

These transaction prices have ripple effects throughout the economy, with **one price in one sector being transmitted to related sectors automatically**, without passing through any central authority. These prices determine how much of each resource gets used where.

If someone else produces a better product, or a lower price for the same product, that fact gets conveyed through prices, not a central authority, and is acted on by consumers. **Prices also mean that producers and consumers don’t have to know why things are getting cheaper or more expensive - they can simply make decisions based on prices alone.** If a vast supply of rare earth elements is discovered in Zimbabwe, this may ultimately make smartphones cheaper, but consumers don’t have to know about this discovery to enjoy the benefits, and central authorities don’t need to control this pricing.
How Prices Allocate Resources

Prices provide financial incentives - profits and losses - to affect behavior in the use of resources and their resulting products. Profits motivate people to provide more of a product that people want, and profits are often the focus of popular press (“greedy capitalists!”).

But just as importantly, losses force the producers to stop producing what consumers don’t want. Losses prevent the inefficient use of scarce resources, allowing those resources to be used elsewhere where they will produce better output.

In general, a producer will try to maximize her profits and produce as many units as possible without incurring a loss per unit. She will bid higher for resources until she starts losing money per unit - when the cost to produce exceeds the amount people are willing to pay. As she bids up the price of resources, these resources become more expensive for other producers, which increases the cost of their products.

However, the producer will reach a ceiling in consumer demand when, beyond a certain supply, consumers are indifferent or unwilling to consume any more. The producer will not produce beyond this point. A natural equilibrium thus results when all producers bid for resources to meet their consumer demand.

A concrete example:

- People want a variety of milk products - ice cream, yogurt, cheese. They are willing to buy these products at different prices.
- When demand for cheese goes up, cheese-makers use additional revenue to bid away milk that would previously have gone into making ice cream or yogurt.
- This increases the price of milk, which increases the prices of ice cream and yogurt, which makes consumers less likely to buy these at higher prices.
- Each product has its own demand curve. If consumers are willing to buy ice cream at a higher price but not yogurt at a higher price, then more of the higher-priced milk will go into ice cream making than yogurt.
- At some point, the demand for cheese will plateau. Even if the cheese maker bids up the price of milk further and increases the cost of cheese, consumers would not be willing to buy cheese at this higher price, which will cause a loss and force a reduction in production.
- Thus, each producer will buy only as much milk as necessary to repay the cost of producing cheese, plus their desired profit.
- The repercussions of this flow to other markets - higher milk prices mean cows may live for longer instead of being slaughtered for meat; this increases not just the price of meat but also the price of leather and baseball gloves; fertilizer and feed. This creates a network of global scale, so that demand for cheese in the United States may mean more expensive produce in Japan.

Again, importantly, no one at the top is coordinating all of this activity. In a market economy, resources tend to flow to their most valued uses automatically. Millions of individual consumers, producers, products, and resources are connected in a web of mutually reinforcing interests, where a change in one element is passed along the chain to millions of others.
Note that these adjustments are made in increments at the margin, not in categorical on/off terms. In equilibrium, each incremental amount that is used for one thing is equal in value to what it’s worth to others in other uses.

A useful metaphor here is water finding its level. Resources flow toward where the rates of return are highest - where the unsatisfied demand is greatest - until competition arrives, returns are evened out across the economy, and the water finds its level. [Frothier waters with a frenzy of activity, possibly unoptimized, may be one signal of a rapidly growing industry.]

One consequence of market economies is that individuals may have varying outcomes while the society improves as a whole. For example, cheap automobiles improved the standard of living for an entire population while obviating saddlemakers and horse caretakers. In some sense, it’s unfair for people of similar skill to earn less than others due to unforeseen changes, yet the benefit is the entire economy operates more efficiently. Would allocating resources suboptimally, to benefit few at the expense of society at large, be “fairer”?

Supply and Demand

Consumers tend to buy more at a lower price and less at a higher price. Similarly, producers supply more at a higher price and less at a lower price.

Supply and demand are not fixed but instead respond to prices. For example, it’s a common mistake to consider the supply of oil as fixed - that when the price of oil rises, a fixed quantity of oil has risen in price. In reality, for a single producer, when the price of oil falls below the cost of extracting the oil, it will shut down, while producers with lower costs may stay open. Likewise, when the price of oil rises, previously unprofitable producers will resume production and generate more supply to meet the demand.

Similarly for labor, when people say there is a “shortage of primary care doctors,” they tend to be fixing current supply at today’s prices, while projecting some other factor forward (like population growth). In reality, in a free market, a shortage will cause prices to rise, which will in turn create more supply.

What happens with artificial prices?

In a repeated theme in Basic Economics, a good way to see why the principles are important is to see what happens when they are not functioning.

For internal transfers within a closed system, misallocations may seem zero sum (money goes to sugar producers when it would otherwise have gone to pig farmers). But the real losses come from misallocation of scarce resources and a reduction in the total wealth of society.
Centrally Set Prices

In the Soviet Union, prices were set not by supply and demand, but by central planners. However, it is currently impossible for a central authority to have detailed knowledge across millions of goods and set pricing optimally.

**Mis-optimized pricing caused surpluses of some goods and shortages in others.** For instance, the state would raise the price of moleskins above what would have arisen naturally in the market, which prompted hunters to get more of them than demanded by consumers, leading to unused pelts rotting in warehouses. Meanwhile, this labor and land use was not used efficiently for a more valuable use, like food, causing shortages.

This situation produced bad incentives. In a market economy, producers have natural incentives to use resources efficiently to increase profits and reduce losses. When producers are instead judged based on their **output** and **not efficiency/profitability**, they ask for more than they need from the government to meet their quotas. In turn, if government officials give fewer resources than was needed, production could suffer, and officials could be punished, so they tend to over-allocate.

Further, without automatic limitations on losses (companies that would normally go bankrupt are propped up by the government), leaders could continue to make the same mistakes indefinitely, with the consequences being a lower standard of living for a nation.

In contrast, in a market economy, individuals with the most knowledge of their situation bid for resources. Prices automatically calibrate to cause resources to flow to their most valued uses. Producers would treat their resources as scarce and valuable, consuming them efficiently. And businesses can only make mistakes until they go bankrupt, which stems the misuse of resources.

This conversion from central planning to market economies, and ensuing growth, has played out often in the 20th century, including China, India, South Korea.

[Question: using the growing power of AI, could central authorities eventually do a job comparable to markets in pricing goods to allocate resources?]

Artificial Price Ceilings

To popular approval, governments may sometimes cap the maximum price of a good, **setting an artificially low price** relative to what it would be on the open market. Rent control is a common example.

Unfortunately, in this rent control scenario,

- People demand and consume more at lower prices, causing a relative shortage of supply.
- **People use the supply more wastefully than usual** - where one might otherwise live in a studio, split an apartment with roommates, or live with parents, she might rent a 1-bedroom for herself.
Parents who might downsize when their kids go to college may opt to stay in larger housing instead. Turnover is reduced.

- In extreme cases, this can cause hoarding due to uncertainty of finding supply in the future.
- People who want housing find themselves unable to secure it and spend more time searching.
- People who have been renting out rooms in their homes may find the artificially low price not worth the hassle, reducing supply.

**Because there is a surplus of buyers, suppliers (landlords) have little incentive to improve quality**, causing deterioration and worse living conditions. In extreme cases, buildings may become abandoned due to insufficient return on investment to get a property back to livable standard.

- With artificially reduced profits, builders have less incentive to build houses in that area versus in areas or properties free of rent control (like luxury housing or commercial buildings).
- Homelessness tends to occur at higher rates in cities with rent control.

When price ceilings are removed, the shortage can disappear without more physical supply being created. After WW2 rent control ended, the housing shortage alleviated without more square footage and homes being built.

Therefore, a shortage (unsupplied demand) can occur without an increased scarcity (fewer goods available relative to population), and there can be an increased scarcity without a shortage. Example of the latter case: a fire may wipe out half the houses, causing scarcity, but prices will rise, in response, people will reduce their housing expectations and live in smaller homes.

Other examples:

- Gasoline shortages in the 1970s, caused by people hoarding gasoline and filling individual inventories more than usual.
- Caps on medical costs can cause people to consume more, seeing doctors for just mild colds.
  - Wait times for procedures are often longer in nationalized healthcare nations.
  - [See: nationalized healthcare in Taiwan, and healthcare utilization habits leading to doctor visits for mild colds.]
- Mandatory price cuts in Zimbabwe in 2007 in response to inflation, leading to mass shortages when it became unprofitable to produce goods.
- Price ceilings can create black markets, where prices are often higher than legally permitted prices, and often higher than uncontrolled markets, since risk must be compensated for.

**Artificial Price Floors**

**Prices set above free market level cause more to be supplied, creating a surplus.** Because the prices are higher, demand is lowered, and people consume less. These are often done through subsidies.

Examples
• Agriculture laws in the US following the Great Depression mandated government purchasing of surpluses and restricted the amount of crops that could be grown. Remnants of the laws continue today.
  ◦ Artificially higher prices cause more to be produced than the market would demand, even when it would make sense for other areas to produce it.
    ▪ Eg sugar could be produced in the tropics for cheaper than in other areas
    ▪ Eg California farmers consume 43% of its water for <2% of state output, when it’d be more efficient to grow in areas of greater rainfall.
  ◦ In some years, the federal government bought ¼ of all wheat and took it off the market to maintain prices. Food was destroyed when people were starving!
  ◦ Some people don’t have enough money to buy at the artificially high prices.
  ◦ Surplus food is sold below cost internationally, driving down prices and neutralizing local producers.
  ◦ There are even doubly defeating policies - subsidies raise the price of goods that make it unaffordable for the poor, to whom we give food stamps. We’re paying twice for the same inefficiency.
• Minimum wage laws and mandatory benefits raise the cost of hiring workers, leading to increased use of capital, oversupply of labor, more discrimination against less capable people, and higher unemployment [explained more in the Labor section].

Myths about Prices

High Prices as Sign of Greed

Many people see prices as obstacles to getting what they want. Beach-front homes in Malibu are priced at millions of dollars, out of reach of most of the country. This can be labeled in the popular press as “greed is driving up the price of housing,” as though people are charging more than the product is worth.

However, this ignores the fact that the price becomes a reality only if others are willing to pay them and if a transaction happens. I could price my phone at $5,000,000, but no one would be willing to buy at that price. I don’t have much control over what others are willing to pay.

Thus, high prices are not a sign of “greed” on the part of homeowners - prices merely reflect the scarcity of beach-front homes, that there are not enough beach-front homes to satisfy all of us. Different economies ration these houses differently - in a feudal economy, the lord would ration the houses by fiat, giving houses to certain people. They could also be rationed by lottery. No matter the method, the rationing would still have to happen.

Related: people tend to over-attribute economic situations to individual actors and intentions, like greed or politicians’ stupidity. In reality, most people do not have the force to shape markets, and are merely responding to their individual incentives like other everyone else. In the Soviet Union, it made a lot of sense to make suboptimal planning decisions (the punishment for deviation was death), even if
systemically it caused massive inefficiencies.

Inversely, some people tend to depersonalize the market too much, treating it as a mysterious entity. In reality, markets are simply made up of people, and understanding individual wants and drives can lead to better understanding of markets [though its complexity and inscrutability may effectively make it an incomprehensible entity].

Other situations that are seen as unsavory, but occur for good reason:

- In areas of famine or emergency, the prices for scarce goods can rise (eg water after a hurricane). Merchants who supply goods at prices higher than other areas seem greedy.
  - In reality, the high prices and profits are necessary to incentivize vendors to supply their goods; without this incentive, people might starve. It is apparently not uncommon for food supplied by nonprofits to sit spoiling on the docks while people starve inland.
  - Furthermore, higher prices cause self-rationing (a family may buy only enough water as necessary until the next shipment, rather than hoarding).
- In low-income neighborhoods, prices for loans and goods tend to be higher.
  - However, profit rates are no higher here than elsewhere, and stores may actually be leaving these neighborhoods. (If profits were so easy, you’d expect an abundance of stores).
  - The higher prices reflect higher costs, in the form of higher crime and vandalism, higher insurance costs, and fixed cost with smaller transactions.
    - Lending $100 to 50 individuals costs more than lending $5000 to one customer.
- Dynamic pricing of goods, like Uber surge pricing.

[Often the most vocal critics of unfair situations are armchair observers not personally subject to the underlying problem, like rich people decrying high costs of payday loans. This behavior might be spurred by the desire to assuage one’s guilt over privilege, by pointing out superficial problems without understanding the more complex root causes.]

There is One “Real” Value

People tend to think there is one “real” value for a good, and that price fluctuations are deviations from its “real” value. In reality, multiple factors govern the price of a good, and the value is subjective. Transactions only happen when each party wants the other thing more than what they currently have - it only makes sense to transact in this case. If there were actually one objective real value, it would be zero-sum and make little sense to transact, since neither side is gaining from the transaction.

How can you put a price on X? (Education, health, art, etc.)

The costs are real - not just the production costs, but also the opportunity costs that those resources could have been spent on something else. Treating something as sacred means something else must invariably suffer.

Price controls are basically a refusal to pay the full costs. Like restrictions on healthcare spending, it often involves forced reductions in prices, not a reduction in real underlying cost. Naturally, price changes will
Unmet Needs

A common talking point is pointing to some burning “unmet need.” This rhetoric tends to categorically place some desires higher than others and seek to meet them at all costs.

However, while there are scarce resources (as there have been for all of human history), there will always be unmet needs. We cannot all satisfy our want for large beachfront homes or, less facetiously, around-the-clock top-tier medical care and the best educators.

Gullibly allocating resources to the “unmet need” of the day is likely to cause suboptimal allocation and inefficiency. Instead, we should consider the tradeoffs in any reallocation of resources.

[My take on this issue is that there is a fundamental schism between people who desire equality and empathize with others’ suffering, and those who do not. Where the former may see a need for people to receive a baseline level of food and care, the latter may prefer the free market take care of itself, which may mean a portion of the population that cannot afford it will suffer while the whole system ends up more efficient. These two sides often find the other incomprehensible, leading to unhelpfully vociferous arguments.]

Economic Explanations are Too Simplistic

Some dismiss economic explanations of a situation as too simple, often in favor of their pet theory.

Simple phenomena can lead to complex emergent effects. The tilting of the earth on its axis leads to annual temperature variation by latitude, leading to complex reactions like animal hibernations and migrations, large seasonal weather patterns like hurricanes, etc.

Economics is Not About Morals of Philosophy

“No one expects mathematics to explain love.” Economics is an analysis of cause-and-effect relationships and to find ways to allocate scarce resources with alternative uses. One shouldn’t expect economics to make moral judgments about what is “right or wrong” - only what produces the greatest overall system output.

Misc Points about Prices

- Prices tend to reduce competition and friction.
  - Scarcity ensures that people are competing with each other when making purchases, by bidding up the price of products they want. However, money encourages a focus on personal decisions about prices and incentives you face.
  - In a market economy, a Protestant church may decide how big of a church it needs to
build, and scale back to something it can afford. It doesn’t consider the Catholics a rival, even though they are competing for the same construction materials.

- If instead the resources were centrally rationed, the two churches would see each other as rivals for fixed resources, maximizing their plans to eke out as much as it can get.
  - Similarly, when buying milk, I simply think about whether $3 per gallon is worth it for me. I don’t think about bodybuilders who drink a gallon of milk a day who are bidding up the price.

- Agency problems - people who aren’t spending their own money don’t have the same incentives.
  - Politicians who spend taxpayer money - explored much more later.

**Industry and Commerce**

Next, *Basic Economics* examines major actors in a market economy - businesses. We'll discuss the roles of profits and how businesses operate.

**Profits and Losses in Businesses**

Much is said about “outsized profits” earned by businesses. They seem like unnecessary arbitrary charges added onto the cost purely to benefit the owners. But this ignores the risks inherent in creating businesses. Half of all new businesses fail in 4 years, and most former titans (like Kodak) eventually go bankrupt as they fail to adapt to changing circumstances. Further, the average rate of return on corporate assets before taxes is between 4-12%, and after taxes from 2-8%, lower than what the average guess might be.

**Profits provide incentives for businesses to produce goods that consumers most want at the lowest cost.** Without these incentives, businesses would be less efficient, producing lower quality goods with less concern for cost, as in the Soviet Union.

Furthermore, there are natural limits to the profits that can be earned - high profits in one sector encourage competition, which reduces profits and increases quality. Without this competition for profits, businesses would have less incentive to adapt to changing conditions to maximize consumer value. **Profit is the price society pays for efficiency.**

**Losses encourage businesses to stop producing goods that consumers don’t want.** Forcing a reduction in investment this way shifts scarce resources to where they can have more valuable uses - like Kodak losing money so that labor that would have gone into film photography can go into digital photography instead.

If a business fails to adapt to ever-changing market conditions, other companies that provide better products will take a greater share of the profits, and the incumbent will incur lower profits or losses. In extreme losses, the business will shut down and is prevented from needlessly consuming more resources. For example, when computers came along, typewriter companies consumed fewer scarce resources by
closing down. [Some investors take this even further, imploring companies to dissolve and redistribute their cash to shareholders, rather than reinvest it futilely.]

Through incentives provided by profits and losses, business owners have a personal stake in the value their businesses create and monitor themselves closely, without needing authorities to dictate what they do.

Throughout all this competition between businesses vying for profits, **consumers as a whole tend to improve, with lower prices and higher standards of living.**

In this sense, knowledge and insight are some of the scarcest of all resources in the economy, giving large advantages to those with insight. In a market economy, the best ideas tend to win through competition, even if the ideas originate from the less powerful. An economy that can tap talent throughout its population becomes more powerful over more restrictive societies, where ideas from the masses might not compel authorities to change anything.

**Businesses vs Non-Market Producers**

Why have businesses displaced non-market producers in many countries around the world? The simple answer - they are more efficient.

If profit-minimizing economies like socialism were actually more efficient, they would have provided higher standards of living than really materialized in history.

Further, if the cost of profits were greater than the value of efficiency, then you would see non-profit organizations or government agencies doing better work than profit-making businesses - yet this rarely happens, while the opposite happens consistently (private enterprises taking over functions of government agencies or non-profits like universities, hospitals).

Businesses competing with each other face life or death based on the quality of their goods and their costs and their reputations, and they face continuous incentives to perform ever better. In contrast, government monopolies have little such incentive and can continue being inefficient without existential threat.

**Unpacking Profits and Costs**

**Profits**

People often misconstrue profit per sale as profit per investment.

Selling a plate of food for $15 while the ingredients cost $5 seems like a profit of $10, but this ignores the investment required to start the business and the other costs that go into the food (labor, rent, utilities).
Similarly, a piano dealer may charge a higher markup per piano than a loaf of bread at a supermarket, but far fewer pianos are sold, and the markup needs to compensate for low volume.

What matters is **profit on the total capital invested in the business** - this is the yardstick by which different opportunities are compared.

Capital tends to flow to the areas of greatest return, so **be wary of situations that seem wildly profitable, since the situation may be bleaker than you imagine**. While stores in low-income neighborhoods have higher markups, they have lower than usual rates of profit on investment - not just because of higher costs from theft and insurance, but also because local residents may shop elsewhere to seek lower prices, causing slower turnover.

**Economies of Scale**

Costs are dynamic and change according to volume. **Economies of scale** occur as the cost per unit decreases as the number of units increase. This is often due to large fixed costs upfront that become split more evenly across more units. This occurs with manufacturing, distribution, marketing, and more.

Advertising causes an interesting situation. **Because advertising causes more of the product to be sold, it may actually reduce the cost per unit of production.**

Large enterprises tend to become larger - up to a point, where its advantages plateau or even dissipate. Larger enterprises become more difficult to monitor, and internal controls may fail to be applied systemically. They also become more difficult to coordinate, becoming so bureaucratic that adapting to changing market needs is difficult. These are **diseconomies of scale**.

**Savings and Costs Passed Down to Customer**

**Rising costs are passed down to customers only insofar as the competition is affected by similar costs.** If you ship your product by railroad and railroad costs rise, you can pass the cost on to customers only if your competitors do as well. If they ship by sea, then passing your costs along will lose you market share.

Similarly, cost savings are passed down depending on the company’s strategy. If a company discovers a cost-saving technology, it can opt to price just below the competition and collect the larger profits, or it can reduce price to gain more market share.

**Business Operations**

**Changes in Markets**

Businesses need to respond to a variety of changes:
Social changes
- In the 19th century, the majority of people lived in small rural communities, with high cost of goods to small scattered stores. Montgomery Ward operated a mail order service, delivering products at lower costs than those charged by rural stores. But as urbanization happened in the 1920s, urban department stores became more efficient, leading to the rise of JC Penney.
- Grocery chain A&P was dominant for decades, from the 1930-50s. Located in central cities, A&P stores had operational efficiency that allowed charging lower prices. However, the automobile led to suburbanization, which led to supermarkets and their advantages of scale (including lower delivery costs per unit and larger transaction sizes with lower overhead per $).

Economic changes

Technological changes
- Rockefeller produced new products from petroleum, extracting more value and reducing the price of its main product kerosene, instead of letting it go to waste.
- Newspapers were the primary means of disseminating news, until the Internet made them largely obsolete.
- Digital cameras made film photography like with Kodak obsolete. (Ironically, Kodak invented the digital camera.)

Business model changes
- With the rise of credit cards, retailers often ended up making more profits from managing their own credit card programs than from retail.

Changes in business leadership

Often companies fail to adapt because their calcified ways of doing things are not efficient at producing the new type of product people want. Howard Johnson’s fast food chains failed to compete with McDonald’s because its restaurant practices carried over into fast food were less efficient than McDonald’s practices.

Specialization and Middlemen

A company is limited in the range of functions it can perform efficiently. Only a certain number of links in the value chain can be mastered and operated efficiently by the same set of people.

General Motors is excellent at making automobiles, but it leaves tire manufacturing and car sales to others. Compared to local dealerships, it is too much for GM to track local conditions across the United States, decide where a lease location is most effective, understand the trade-in value of a Honda in Seattle vs Miami, etc. Similarly, authors don’t own their own bookstores, and companies often hire outside marketing agencies.

Middlemen exist when they can do their part of the chain more efficiently than others can. Put another way, middlemen are able to get more value from a company’s output than the company itself can, so it bids the price of the output higher than the company would be willing to buy from itself.
[Changing capabilities mean the company can both bring a capability in-house and outsource something formerly in-house. Eyewear brand Warby Parker sells direct to consumers (using the Internet as distribution) instead of paying for presence in retail stores, thus cutting out a middleman like Sunglass Hut. Conversely, tech companies used to build and manage their own computer servers at great expense, but now have largely outsourced to convenient providers like Amazon Web Services.]

**Developing countries tend to have more middlemen, which is often lamented as waste, but reflects a reality of more limited capabilities by providers at each step of the chain.** Instead of ten farmers taking time off to carry their produce to town for sale, one middleman collects the produce of many farmers and drives it to a buyer. (In contrast, in the US, a farmer may own vehicles and siloes that are so efficient they make a middleman unnecessary). Society as a whole saves on the amount of resources required to get the produce on the market, with the cost being the profit made by the middleman.

Similarly, in developing countries, there are often more middlemen between the manufacturer of goods and the consumer. **The limiting factor here is the poverty of the consumer, who can buy much less at once.** In Africa you might see small traders sitting with their wares outside retail stores, selling volumes as small as half a cigarette. Here, the store owner clearly sees it as less efficient to break down their packaged goods into minute quantities and to handle tiny transactions, and is thus content to outsource that consumer need to a middleman. Higher in the chain, it is not efficient for Nabisco or Philip Morris to break down their pallets into individual-cigarette sized packages.

**In more prosperous countries, technology would reduce the number of middlemen,** with each producer producing more output, storing it more efficiently, and transporting a greater volume on highways; and with each consumer buying more at once.

**Peak Capacity**

In industries with fluctuating demand, enterprises often need to **reserve enough capacity to handle peak volume, which means there is excess capacity at non-peak times.** In non-peak times, prices will lower to attract budget-conscious consumers - like cruise ships offering reduced fares in the off season.

In one amusing situation, a Ritz-Carlton in Cancun was offering rooms at $169 a night, while a Best Western was $180 a night. Why? Budget-conscious travelers tend to prebook in advance to lock in rates, leaving the higher-priced hotels more subject to fluctuations. When travel reduced in 2001, luxury hotels had to discount their goods to fill excess capacity.

These principles often don’t apply in government projects - a tollway tends to charge the same amount no matter the time of day, even though it’s stuffed during rush hour and idle in off hours. For efficiency, ideally the toll should increase in peak demand times and be costless in other times, shifting demand to other hours. This would smoothen out demand and even reduce the amount of capacity required, lowering the cost of construction. However, politically these efforts are unpopular, given the number of toll payers who would be disadvantaged.
Inventory

In a related concept, **inventory costs money and doesn’t earn any. Inventory is a substitute for knowledge** - if a factory knew exactly what parts were needed at what times, there would be no inventory needed.

Japanese manufacturers practice “just in time” inventory, where their inventory might just last an hour. They can rely on this because of high reliability from upstream manufacturers and delivery services, who themselves compete on quality and price in the market economy. Reliability is a matter of economic life and death for vendors.

**When the suppliers are unreliable, it makes sense to keep a larger inventory and even manufacture your own components, to guarantee your output.** This leads to waste of scarce resources.

In the Soviet Union, state-run enterprises often provided unreliable service and poor quality. In turn, private enterprises, with little profit incentive to force down costs while having strict quotas to meet, often made their own components. [There are vicious cycle components here - the more inventory a company keeps, the less need there is for external suppliers, which worsens their quality further and encourages keeping more inventory.]

Other factors of uncertainty increase the need for inventory, such as geographical locations that are cut off by weather sporadically throughout the year in sub-Saharan Africa. Here maintaining large inventories is necessary, but adds inventory costs and reduces standard of living.

Sometimes economic uncertainty, like in recessions, leads companies to draw down their inventory instead of maintaining a constant inventory:sales ratio. In this way, a “jobless recovery” from a recession may occur as vendors sell goods off their shelves without replenishment.

Limited Liability

**In corporations, the owners are not personally responsible for the financial obligations of the organization.** This is unlike partnerships, family businesses, or individual proprietorships.

This limited liability is **critical to encourage pooling of capital from vast numbers of people to pursue ambitious, risky ventures.** These businesses are often too large to be financed by a few individuals, and so they must raise capital from individuals directly or through intermediaries like pension funds. Without limited liability, **if shareholders could be personally responsible for the corporation, the barrier to investment raises considerably, and risky projects may not be born.**

What about lenders, who have limits to how much they can collect from limited liability businesses that go bankrupt? They understand the implications of limited liability and adjust their risk estimations accordingly, requiring higher interest rates.
Corporate Governance

Much is said about the separation of ownership and management, and how managers can run enterprises for their own interests at the expense of shareholders. Consumer advocates have pushed for greater involvement for shareholders in managing the business.

Yet many shareholders want the rewards of investing without the bother of managing. This is evidenced by the fact that large shareholders could start their own businesses if they really wanted managing responsibilities. In other words, corporations are undemocratic because shareholders may not want them to be democratic, nor would they want outside observers with no financial stake to have a say in the management of a corporation.

When an outside investor buys enough stock to take over corporations, this may not be a tragedy - they have both the incentives and expertise to improve an enterprise in a way that common shareholders may not.

Executive Compensation

The average pay of CEOs in public companies in the S&P was $10 million a year. While this is a lot, it’s also less made by some athletes and entertainers, and less than the average pay for CEOs at corporations owned by a small number of financiers, who have incentive to set the right pay level.

Severance packages of millions have been criticized, but it is far better to terminate a failing CEO that can cost a company billions. [Further, the knowledge of a severance package, even in the case of failure, reduces the barrier to sign the CEO who needs to undertake risky actions to reverse a company’s downfall.]

Monopolies, Regulation and Anti-Trust Law

The Cost of Monopolies

In a competitive market, consumers can take prices for granted. They know that they are not being charged outlandish prices for bananas leading to relatively high profits, because if they were, competitors should soon arrive who will compete the profits down to a rate of return similar elsewhere in the economy.

Monopolies, oligopolies, and cartels reduce competition, control prices, and thus distort markets. The monopolist would earn a rate of return necessary to attract capital required, but no competition arises to drive down prices.
The real harm of monopolies is not consumers paying more for goods - within an economy, this is simple redistribution of wealth. Rather, at the higher artificial price, fewer goods are demanded and produced than at a lower market price. Thus, a monopolist produces less output with the same available resources.

For instance, in many cities the government supports a monopoly on taxicabs by limiting licenses and setting prices. This artificially limits the number of drivers; people who would be willing to drive at market rates are prevented from doing so, finding other work of lesser value. Furthermore, the higher price of cab rides reduces the number of rides and overall consumer standard of living.

**What is Actually a Monopoly**

Size and economies of scale have been misconstrued as “squeezing suppliers.” A large buyer like Wal-Mart might be able to procure goods at lower prices than a neighborhood family store, and this has sometimes been seen as unfair or anti-competitive. However, larger buyers actually do lower costs for vendors through lower overhead per unit, more predictable production schedules, and thus smoother labor management. These cost reductions reflect reduction of use of scarce resources, freeing them for use elsewhere. The result may be competitor stores that go out of business when they can’t offer such low prices, but the economy becomes more efficient overall.

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Large players and dominant market share are often targets for anti-trust. **Even if a company controls an industry of arbitrary scope, there are always substitutes for the company’s product that limits its influence.**

Facetiously, an Indian restaurant has a monopoly on the industry of “Indian restaurants within 2 blocks.” However, there are ready substitutes of other restaurants nearby, Indian restaurants further away, as well as other frozen and pre-packaged foods at supermarkets.

Less obviously, the Aluminum Company of America (Alcoa) was the only producer of virgin ingot aluminum in the US. However, it earned only profits of 10% after taxes, and the price of aluminum decreased over time, rather than increased through brute monopoly control. The reason was that Alcoa’s aluminum products could be substituted by steel, tin, or plastics if it raised prices too high.

Likewise:

- despite its size, Microsoft faced substitutes in Linux and Apple operating systems.
- corn and petroleum, commodities that seem superficially different, can both be made into plastics.
- golf courses face substitutes in other sports and hobbies.
- a single local newspaper may have local control, but are substituted by nationally available newspapers and the Internet

If higher prices for A cause people to buy more of B, then A and B are substitutes.
A company that cannot keep competitors out is not a monopoly, no matter what % market share it currently has.

Furthermore, a monopoly of a product in a country may mean little when it’s easy to import substitutes from other countries.

Thus, any argument based on market share or “control” of an industry needs to be carefully examined for substitutes, and the limits of their ability to set prices.

Maintaining Monopolies

In practice, monopolies are hard to maintain without laws to protect monopolies from competition, like licensing requirements.

**Predatory pricing** - there is a fear of larger players who will cut prices to a level that forces smaller competitors to bankruptcy, then raise prices as they become monopolies.

There is scant evidence of this happening in reality. Forcing prices down is a risky strategy, uncertain to recoup the costs in the long run. Further, the bankrupt competitors are now ripe for purchase at bargain rates by new entrepreneurs, who can rebirth the company with lower costs and become a dangerous competitor.

**Cartels** are formed by a group of businesses agreeing among themselves to avoid competition. In practice, individual members of cartels tend to cheat secretly, perhaps by lowering from the cartel price to some customers. This frequently leads to price wars and disbanding of the cartel. Cartels with clear transparency for companies to check up on each other tend to last longer.

Regulating Businesses

Governments have passed laws to restrict monopolies, like forbidding price collusion, and setting mandatory prices.

**Ideally, the government sets prices at where they would be in a competitive market, but it is difficult to do this without actually discovering prices through the market.** Instead, they try to determine reasonable production costs and set a reasonable profit. However, as previously explored, artificially low pricing can lead to shortages, as California experienced in the 2001 blackouts by forcing a price ceiling on utilities.

Further, regulatory agencies often morph from overseeing an industry, to protecting industry members through favorable regulation and seeking to justify the agencies’ own existence. For instance, the Interstate Commerce Commission arose to restrict railroad monopolies, but eventually protected railroads...
from trucking through pricing and restricting trucking routes. Without this intervention, railroad companies would have complained, threatening the survival of the agency.

The result was the survival of companies and employment of people that would otherwise have ended, and thus the inefficient allocation of scarce resources to less productive uses.

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There is often confusion about what is detrimental to competitors and what is detrimental to competition.

Sometimes actions that force companies to facilitate their competitors seem more like protecting competitors than fostering free competition. Microsoft, after bundling Internet Explorer with Windows, was forced to open access to Windows as a result of anti-trust lawsuits, which seems like a disruption of free competition.

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The tradeoffs of anti-trust laws need to be examined. If companies fear becoming too large and violating anti-trust laws, they may limit the scope of their expansion, or invest internationally. Further, laws to restrict large businesses may limit the efficiency that would otherwise arise with free competition.

Work and Pay

Next, Basic Economics covers another major factor in an economy - labor, and how policies relevant to labor can distort the economy.

Productivity and Pay

Labor - people’s time, energy, knowledge, and skills - is a scarce resource.

Paying for work provides incentives for people working or potentially working, and provides a set of constraints on employers.

Just like any other resource, pricing labor allocates scarce resources that have alternative uses. Paying engineers higher salaries than artists shifts people’s time toward engineering, where their output to society may be larger. Increasing compensation may extend the time before retirement, when the labor would have been spent on leisure instead.

What determines a person’s pay?

- On the demand side, the productivity that the person is able to produce to the employer is the upper limit.
• On the supply side, the pay other people with similar output are willing to accept is the lower limit.

A worker who added $100,000 to a company but asked for $150,000 in salary would not be hired. On the other hand, that same worker would not be able to get a salary of $80,000 if there are other comparable workers willing to work for $60,000.

**Productivity depends not just on the worker’s internal abilities but also the worker’s circumstances and inputs** - equipment available, management practices, colleagues, and differences in costs along the supply chain.

To that last point, if a company operates in an area of higher costs where competitors do not (as a result of higher transportation costs or mandatory bribes), the value of the worker is reduced, even if the output per hour is identical to a worker in a lower-cost environment.

“The poor are poor not because something is withheld from them but because, for whatever reason, they are not producing enough.” - Henry Hazlitt.

**Misleading Statistics on Pay Inequality**

Some people earn more than others. Much is said about the difference in pay between the top and bottom income brackets.

In fact, **income distributions tend to reflect people in different stages of life** - namely, older people earn more. Older people acquire more skills, allowing them to take on more complicated jobs or do a job more efficiently. Further, they improve their job finding skills and develop reputations that lead to better job offers. Lower income brackets tend to be made of younger people in entry-level jobs.

When looked in this way, the top earners don’t seem to be in outrageous positions - a household income of $100k would be in the top 20%. But a couple, each person earning $50k a year after 30 years of work, doesn’t seem all that well-off.

It is less common for people to stay in the same income bracket for life than it is for people in the lowest bracket to rise to higher brackets.

Furthermore, **statistics based on American households are misleading**, because household size varies across cultures, age brackets, and income brackets. **Per capita income may rise while household income falls, if households progressively decrease in size** - for instance, in 1970 a household of 2 could have made $80,000, but in 2000 that household might instead be two individuals making $60,000 each. Thus statements like “household incomes have remained flat” need to be treated with skepticism.

Finally, it’s easy to assume all income brackets are working similarly hard, but that doesn’t seem to be the case. **Upper income brackets see more people employed and possibly working more hours.**
Knowledge Work and Implications on Discrimination, Inequality

In the past, physical strength was the primary work requirement, and incomes peaked in the prime of life. Women were also heavily disadvantaged compared to men (contributing to terrible practices like killing female infants).

In modern economies, knowledge work has become more important. This rewards people for gathering knowledge and experience over time, leading to higher salaries with age.

This makes comparisons across ethnic groups difficult, since ethnicities may differ in age distributions compared to others. If a group tends to be younger than another, pay will be lower; but looking at workers of the same age and IQ across different races shows roughly equal pay.

Knowledge work has balanced incomes between women and men, when genetic differences like physical strength are less apparent. Much is said about the pay difference between men and women, but a large portion of this is due to women exiting the workforce due to childbirth. Single women who work continuously into their 30s earn slightly more than single men.

Furthermore, the desire for women to bear and raise children may make them more likely to choose careers that are receptive to these interruptions, such as teaching, and less likely to choose careers where you become far less competitive after time off, like computer engineering. [One can still say it’s unfair that women need to be the gender that physically bears children, so when in vitro fetus growing is possible, greater equality may arise.]

In general, companies can discriminate, but at great risk. If women truly earned 75% of men’s pay for the same work and output, then a company would become vastly more competitive by hiring 4 women in the place of 3 men. Companies that paid a premium for men would be at a strict disadvantage. The fact that this scenario doesn’t happen should provoke some skepticism to the statistic about women’s pay inequality. And in reality, even if this situation were to occur, companies would bid up women’s salaries for equal output, causing equalization.

This reasoning has led to the pattern of governments discriminating more harshly than private employers. In apartheid South Africa, white employers often hired more blacks than permitted by the government, since it was strongly in their interests to do so. Similarly, blacks were starring on Broadway in the 1920s, when they were kept out of many civilian government jobs.

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Because salaries rise with more work experience, welfare states that allow people to live without working tends to increase inequality. Non-workers who have little incentive to work face a perpetually increasing skill gap with workers.
Capital and Labor

Capital is another input into production, and capital both complements labor and competes with it. For instance, one can buy better machinery to produce more goods with fewer people, or hire more people with worse machinery.

As discussed below, mandatory minimum wage laws can set artificially high labor prices, which causes employers to hire fewer people and make more capital investments.

One must therefore be careful to define efficiency of output, since it is a subjective outlook depending on the scope defined. An engine’s efficiency is subjectively the energy used to produce work, considering heat as waste.

Likewise, economies tend to optimize around the scarce resource. Compared to European farms, American agricultural output is “less efficient” per acre, but more efficient per worker. This is because land is relatively plentiful in the US and labor is scarce. The relative scarcities of the inputs are important in determining efficiency.

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Capital tends to be scarcer in poorer countries, while labor is more abundant. This leads to optimizations around capital while using labor in ways that richer countries may see as inefficient.

For instance, the price of labor in rich countries is so high that repairing a car may be preferable to simply buying a new one; whereas poorer countries may happily buy those used cars and use cheaper labor to maintain them. In the richer country, that scarce labor could be put to better use elsewhere in the economy, to more than compensate for buying the replacement. Meanwhile, in the poorer country, the labor spent on fixing the car signals that there is no better use for that labor elsewhere.

Distortions in Labor Markets

Minimum Wage Laws, Mandatory Benefits, and Unions

Minimum wage laws, mandatory benefits, job security, working conditions, collective bargaining and occupational licensing all have the same effect - they artificially increase the price of labor above what they would be in free competition. This causes a surplus of supply and less to be demanded. We’ll focus first on minimum wages.

Thus, even though minimum wage laws are meant to benefit workers, they can lead to increased unemployment. The real minimum wage is always zero. With artificially higher wages, employers tend to use more capital as a resource. Rather than hiring extra people, employers get more mileage through existing workers through overtime.
Countries with no minimum wage laws like Switzerland and Singapore tend to have lower unemployment rates of 2-3%. Furthermore, countries with no minimum wage laws and fewer mandatory benefits tend to have shorter periods of unemployment and faster turnover.

Because of the surplus in supply, buyers (employers) can be more selective about who they hire. This typically disadvantages younger, less skilled, and minority workers, who become delayed in acquiring job skills and experience and thus stifle their lifetime income. Indeed, minimum wage laws were once explicitly advocated to reduce competition with minorities, who were willing to work for less (such as blacks in the United States in the 1930s).

Labor unions benefit from minimum wage laws, since experienced unionized workers tend to displace younger, less skilled workers as the minimum wage goes up. [Imagine that a young worker would cost $8/hr in a market, but a skilled worker would cost $15/hr. An employer could make the tradeoff accordingly. But if the minimum wage became $14/hr, the cost difference to hire the skilled worker shrinks, and it becomes much more compelling to hire the skilled worker].

Politically, minimum wage laws seem superficially beneficial to voters, since the wage is an obvious first-order improvement, but unemployment is a more subtle second-order problem that isn’t tied to minimum wage laws. [Furthermore, there are likely vicious cycle effects wherein the employed are more likely to vote, and the employed are more likely to support minimum wage laws, thus further increasing unemployment and entrenching the voting power of the employed.]

If there were no minimum wage laws in the United States, more people would be employed, with the median person earning lower wages than with minimum wage laws. This “spreads employment more evenly.” And the workers still retain free choice - if they were clearly better off not working for the employer at a lower wage, they would choose not to work. Instead, minimum wages tend to make low-wage workers worse off by closing off one of their already limited options.

Working Conditions and Benefits

The above reasoning applies to mandatory working conditions, benefits, and job security laws. These costs are factored into the total cost of hiring workers and tend to increase cost per worker above free market levels.

For instance, for job security, firing may be so costly that it’s easier not to hire in the first place. These laws save the job of existing workers, but at the cost of reducing flexibility of the economy as a whole. Even in technological disruptions that obviate jobs, the workers flow into more productive roles for the economy, such as agricultural workers turning to manufacturing.

Politically, these policies are popular because they gain more votes from workers than it loses among employers, and they cost the government nothing.

All these are reasons that unemployment may not decrease as an economy rises out of a recession - an employer may simply find that working existing workers overtime is cheaper than the overhead of
hiring new workers (in training and benefits).

**Labor Unions**

Similarly, labor unions tend to set wages higher than what would exist in open competition.

Say that manufacturers would pay $15/hr for workers at market rates. The union bargains to increase pay to $20/hr. Now the employer will employ only people who meet the minimum bar at $20/hr; this may mean driving some unemployed workers to their second-best option for $12/hr. This is a loss to the economy as a whole, since scarce resources are not being allocated to where productivity is highest, and capital is required to increase worker productivity to $20/hr.

As an example, auto unions in the United States raised auto worker conditions, but they also raised the price of cars and made American cars less competitive with Japanese cars. Eventually Japanese manufacturers built plants in the US, which became mostly non-union. This is part of a growing skepticism about unions’ economic effects, since highly unionized workforces became correlated with economic declines and unemployment in industries. Employers have remaining non-union by paying their workers at least as much as unionized workers receive.

The unions remaining in the United States are often in the public sector, as with teachers. Public managers and politicians spend taxpayer money, not their own money, and so have little incentive to resist union demands. Furthermore, often being monopolies, government agencies lack competition that would force efficiency.

**Occupational Licensing**

Certain professions like doctors, beauticians, and taxi drivers require licenses to practice.

Surprisingly, the demand for requiring licenses for practitioners has usually come not from the public but rather from existing practitioners. This protects incumbents from competition. One signal of this is that new legislation often exempts existing practitioners - if the law were meant to protect the public, then currently employed bad actors should certainly be weeded out.

**Child Labor Laws**

Once designed to protect children from vulnerable physical working conditions, child labor laws now keep youth out of office jobs. Thomas Sowell argues that educators and labor unions have incentives to keep children in school for longer and out of the workforce, respectively.
Open Competition

Thomas Sowell argues that \textit{in open competition, better safety and working conditions would naturally arise through employers competing with each other for workers.}

[Note that this probably requires employer reputation to be spread among workers - which has gotten easier with the internet - and job mobility and transportation to make labor markets fluid.]

Another factor prompting legislation is that many people may rather trust in a guaranteed level of working conditions, despite its distortion of the market, rather than trust the vague open market to take care of it and suffer the occasional bad actor.]

Wages in Developing Countries by Multinationals

Much is said about low wages in developing countries for wealthy multinational companies, such as with Apple/Foxconn and Nike. The common perception is that the employer should pay a wage comparable to that in the United States - that the gap between $10/hr and $2/hr is too vast.

However, this ignores the \textit{difference in productivity} between workers in developed countries vs developing countries, due to worker skills, technology, and management practices. A $2/hr worker may generate losses if paid at $10/hr.

\textbf{This argument also takes a paternalistic air, that the international workers are “forced into” sweatshops, as though they had no free choice.} In reality, these jobs can be highly in demand, reflecting the (unfortunate) reality that there are no better local alternatives than the multinational job. Multinationals pay about double the local wages in poor countries. A $2/hr job at a factory may be far better than the $1/hr job in worse conditions. \textbf{Removing these jobs would remove a valuable option and force workers into less productive jobs.}

When employers are forced to adopt higher minimum wages in a country due to legislation or popular pressure, they can develop labor capacity in other countries, or use capital instead of labor (eg by displacing workers with machinery). This costs the country the bigger picture, since fewer employed people means less stimulus for the economy and fewer workers who gain the skills to benefit the local economy in the long run.

Instead, open competition among employers in a country can increase wages and working conditions naturally in a virtuous cycle. One employer developing skills in a population can invite more employers to seek talent, driving up wages and human capital.

Finally, in reality, rich countries tend to invest more in other rich countries, not in poor countries (as explained in the International Trade section below). If exploitation were such a great opportunity, why aren’t multinationals doubling down and pouring all their investment there, instead of other high wage countries? It must be because high wages in other countries produce relatively more output per dollar than lower wage workers do - thus the lower wage in other countries is justified.
Other Problems in Labor Markets

Unemployment Statistics

Unemployment rate is usually defined as the percentage of people who are looking for jobs who are unemployed.

If the base - the number of people who are looking for jobs - decreases due to giving up or going back to school or retiring, then the unemployment rate can decrease even if the number of people without jobs increases.

Furthermore, comparisons across countries and cultures can be problematic. Countries with more generous welfare and unemployment policies, like France, can remove people from the labor force, thus decreasing unemployment rate. For instance, over 70% of people aged 55-64 work in Switzerland, compared to 37% in France.

‘An alternative metric is to measure what percentage of the adult population outside of institutions (colleges, the military) is working.

The unemployment rate can never reach zero because of “frictional unemployment” - the time and effort for employers and workers to find each other. This should be distinguished from long-term unemployment.

Safety Laws

Thomas Sowell admits that one aspect of regulation has special exemption - safety laws that protect the general public. Examples include working hour limits for pilots and truck drivers, where accidents can endanger many others. Employers and employees may not consider the externalities of their work, so safety laws are safeguards.

Time and Risk

This chapter in Basic Economics deals with valuing risk and time, particularly around investments.

Investment is the sacrificing of money, goods, and services today to have more valuable money, goods, and services in the future.

Because the future is unknown, investments necessarily involve risks, which must be compensated to make it worthwhile for people to undertake the investments.
Financial Investments

Examples of financial investments include bonds and corporate stock. You give money today to earn more money later.

Investments pool resources from many stakeholders to **finance large projects that would not be possible with few investors**. Countries without financial institutions cannot mobilize capital from a mass of individuals to make large investments and tend to be poorer.

Profits from banking and investments have been decried as “unearned income,” merely skimming profits off of hard labor. This stigma has led minorities outside the existing social system to lend (eg Jews in Europe, Chinese in Southeast Asia). However this ignores the high chance of business failure and the many discretionary decisions required for business success.

Loans and Bonds

**In loans, interest rates compensate lenders for risk and for the delay in receiving money back.** Money is more valuable today than it is in the future - at the very least, you could earn interest on money in a bank, or invest it in the stock market. You may also die and lose on the opportunity to spend that money; or the bond issuer may go bankrupt.

Therefore, people are willing to buy bonds (lending their money to the bond issuer) at a certain interest rate considering the above factors. If you are willing to part with $100 to earn $104 a year from now, this sets your interest rate at 4%. Naturally, in the bond market, people bid different prices based on what the bond is worth to them.

**Higher interest rates lead people to save money and decrease borrowing, and bond prices go down because there are more attractive places to put money.** Likewise, low interest rates lead people to spend money and borrow money to spend today, and bond prices go up since they become relatively better investments.

Payday loans appear to have astronomical annual rates, but they are rarely held for as long as a year - they’re meant to be bridge loans to the next paycheck. The overhead fees for each small transaction also inflates the apparent rate.

Laws that make loans difficult (forbidding interest or collecting on debts) limit those loans from being made in the first place.

Stocks and Venture Capital
Stocks tend to have higher rates of return than bonds because of their variable rate of return, while bonds have guaranteed returns. Similarly, consider two occupations - one that pays a regular $50k a year, and another that pays $10k one year and $90k the next. You'd likely want to be paid more for the latter. Analogously, people will not take the risk of buying stocks without being compensated above the safer alternative of bonds.

[This might suggest that if an entire nation becomes comfortable with long-term time horizons, as with the growing popularity of passive investing, the rate of return for stocks will go down.]

Interestingly, the risk varies with time involved. In the short term, bonds are likely safer than stocks; but at 30 years, the risk of inflation threatens the value of bonds, while stock prices tend to rise with inflation.

Entrepreneurs with immature businesses are unable to issue bonds or secure loans, given the high risk of failure. Thus they tend to raise money by selling stocks instead. As a whole, the venture capital industry does not lose money, suggesting it does not waste the resources of the economy, even if individual venture capitalists have vastly different returns.

Speculation

Speculation involves buying things that do not yet exist or whose value is undeterminable, such as buying stocks in new unprofitable businesses, exploring for oil, or buying scripts for movies that may not be made.

Speculators reduce risk for the counterparty, for a price. For example, a speculator may sign futures contracts to buy or sell corn at prices fixed in advance, so that the corn farmer may concentrate on farming and rely on this certainty to make his own investments. Speculators are better able to bear these risks due to more sophisticated assessment of risk, ability to ride out short-term losses, or diversification. Naturally, the speculator must on average pay the farmer less than the market price at harvest time - this gap is the value of reducing risk for the farmer.

Speculation is often considered akin to gambling, but gambling is creating a risk that would otherwise not exist (like Russian roulette). Speculation attempts to minimize inherent risk.

Related: insurance companies pool risk from large numbers of people to reduce risk at the individual level. Insurers have vast amounts of capital and can last beyond human lifetimes, enabling them to absorb the variations in individuals.

Capital Gains

Given inflation, taxing capital gains is questionable because it considers the absolute cash increase, not the relative value of money. If the interest rate is 4%, and someone buys a $10,000 bond and receives...
$10,400 a year later, she will be taxed for the gain in $400. But if inflation were 4%, the two amounts of money would be equal with no reward for buying the bond. Thus capital gains taxes are controversial.

Insurance

Like speculators, insurers take on risk from individuals because they can weather individual risks by pooling large numbers.

Insurers also seek to reduce risk, charging lower prices to safe drivers and reducing premiums for losing weight. Higher prices for more risk conveys to people the costs created by their chosen activity or behavior and incentivizes them to reduce risk.

From the individual’s perspective, insurance also reduces risk - the cost of insurance has to be less than the cost of uninsured risk, otherwise the transaction wouldn’t happen. Without insurance, the higher cost must be priced into the product - thus, the cost of an insured product is lower than the cost of an uninsured product.

Insurers take money from premiums and invest - ½ of life insurance companies’ income come from premiums, and ¼ from earnings on investments. [Berkshire Hathaway famously uses insurance float as leverage for its investments.]. Insurers aren’t just making outsized profits - competition reduces the cost of premiums to a market equilibrium.

When an entity becomes large enough, they can self-insure at cheaper rates. Car rental agency Hertz may own enough cars that it can assess risk across its fleet and price risk into the rental cost, perhaps better than an insurer can. It may not make sense to transfer risks that is not reduced in the process, since the insurer has its own management costs and needs room for profit.

Insurance Problems

While insurance generally reduces risks, insurers also have to deal with a few problems:

- **moral hazards**, where the knowledge of being protected actually increases risky behavior. Thus calculations of current risk may not reflect real risk after insurance.
- **adverse selection**, where riskier people tend to buy insurance while non-risky people don’t, in ways that are currently opaque to the insurer. If it assesses risk over the entire population, insurers may underprice insurance and discover later their risks are higher than expected.

Government regulation can increase or decrease these problems. By requiring all drivers to have insurance, this reduces adverse selection problems. However, requiring all banks to buy insurance increases moral hazard and risky investments, since depositors don’t apply as much due diligence to risky behaviors by banks. This contributed to the savings & loan association losses in the 1980s.
The situation is worse when prices are clearly distorted. The public National Flood Insurance Program insures homes where private insurers would not, and charges premiums far below what is necessary to cover costs. This means taxpayers pay for risky behaviors, often because it is politically beneficial to provide disaster relief. Unlike insurance, which is meant to reduce risk, mispriced government aid can create more risk.

Morality of Insurance

Much is said about how it’s “unfair” for a young driver living in Detroit to pay much higher insurance than in Milwaukee, even if they are otherwise the same. Similarly, it can be considered discrimination to charge higher premiums to people with higher genetic risk of disease, even if it’s not their fault.

Thus, laws have been put in place that forbid risks to be reflected in insurance premiums. In France, charging different premiums by sex is banned, even though males live shorter lives and have more car accidents.

The effect is that premiums overall must rise because:

- Risky people are not being priced out of the market
  - Cheaper-than-efficient car insurance means more unsafe drivers are on the road
- The higher cost of risky people must be spread among less-risky people
  - Thus lower-risk people are subsidizing higher-risk people
- A greater risk of adverse selection leading to mispriced premiums
  - If male and female life insurance premiums cost the same, even though males are riskier, then the company risks having more males than expected buy the premiums, thus making the price unprofitable.
- Risk of litigation from buyers who claim discrimination

[As Thomas Sowell says, economics is not about morality, the same way math is not about love. Insurance is about risk, not moral faults.]

It seems to me that the desire to avoid insurance “discrimination” is essentially a decision by society that people whose situations are not their fault should have their suffering reduced, even if it costs society at large its scarce resources.]

Human Capital

Examples of human capital investment include formal education, work experience, and parenting. Parenting can be considered repaying the investment made by the parents’ previous generation.

A college major that doesn’t produce useful output in the economy has correspondingly low pay,
serving as a signal to people to stop making such investments to avoid wasting scarce resources.

Countries where higher education is new tend to produce large numbers of educated people who now feel certain trades are beneath them (eg physical labor), but tend not to study difficult subjects with marketable skills (eg engineering or science). Governments create swollen bureaucracies to employ these new graduates.

**Humans Issuing Stocks**

By taking loans, students in effect issue bonds, but they seldom issue stocks. This is due to the lower variance of their success, legal problems, social attitudes, and institutional inertia. Successful students may feel resentful at having to contribute a share of their income after having already paid back the initial investment made in them - but this is the reward for the lender’s risk, including students who do not pay off.

Similar to corporations, riskier people who cannot secure loans for their careers tend to sell forms of equity. Entertainment agents take percentage shares in future earnings of young actors and musicians, thus making it worthwhile to invest resources in them. Lenders are not willing to accept this risk, and agents may have more knowledge in choosing stars, thus reducing their risk compared to industry outsiders.

[It’s still unclear to me why large-enough banks are unwilling to fund risky businesses (like startups) or people at high interest rates, since as a basket the returns should even out. It could be that in a lopsided industry, a few superstars drive the returns of the entire industry, and there is wide variance in whether you capture those superstars (compared to funding medical students). This leads to unacceptable variance for the lenders, and the lenders’ lenders.]

**Natural Resources**

Much is said about natural resources “running out.” However, natural resources are not all available at a single price - resource reserves that are easier to discover and refine have cheaper prices. Even a single oil field may have only a fraction of its reservoirs tapped until the marginal unit becomes unprofitable. Furthermore, technology tends to reduce cost, so currently unprofitable reservoirs may later be profitable with new technology.

A more accurate statement is that the price and the cost determine the degree of natural resource exploration and processing. As existing resource reserves are used up, the price rises, and additional exploration and harvesting becomes profitable.
Misc Points

- Diversification can reduce your overall risk by holding a variety of financial instruments rather than concentrating on one.
  - This has been in practice in centuries past: shipowners found it more prudent to own 10% of ten different ships, then one ship completely.
- Risk and uncertainty are different. Risk is calculable (the chance of a male dying at age 70) while uncertainty is not (whether the government will increase interest rates)
  - Uncertainty can cause consumers to sit on money, decreasing demand.
- Because time is money, people who control time and delays can extort the counterparty or thwart her activities.
  - Slow-moving bureaucracies are an example. In the worst cases, bribes are required to cut through red tape.
  - Raising the retirement age allows the government to escape huge pensions, under the guide of “ending mandatory retirement.”
- Politicians exploit time by:
  - Supporting immediate benefits that are paid off later (and thus underweighted)
  - Creating good-sounding policies to get re-elected but that show their full negative effects much later, when few think to connect the policy with the problem
  - In this later worse time, the politician may even boast that things were never this bad when she was in office and blame her successors.
- People have foresight and can over-respond to signals.
  - In inflationary periods, people spend money faster but also hoard consumer goods and assets, increasing the existing imbalance between reduced goods and the increased money supply.
  - Making money available to help children with learning disability increased diagnoses with learning disabilities - organizations running programs and low-income parents alike faced these incentives.

The National Economy

The basic economic principles covered so far in this Basic Economics summary also apply to national economies as a whole. The supply and demand for a nation’s output can fluctuate, just like supply and demand for a single good fluctuate.

National Output

The national output is what is produced during the current year. It is distinct from a country’s total wealth, which is accumulated across time and can be used to allow a country to live beyond its current production.
The most common measure of national output is Gross Domestic Product (GDP), the sum of everything produced within a nation’s borders.

**Comparing GDP across any dimension has complications:**

- **Across time:** the composition of output changes.
  - Cars in 1950 are far less advanced than cars in the 2000, so merely comparing number of cars is misleading.
  - Work compensation increasingly comes in benefits, rather than direct wages.
  - Work that had previously gone unpaid (like farming, making homemade clothes, cooking food, raising children) may now be outsourced to the marketplace, and is now counted in national output, even though volume of activity has not actually changed.
  - Developing countries that improve healthcare allow the poor and elderly to better survive, but their survival now lowers the average income compared to the past.
  - Trying to adjust by cost of living is difficult, since rare luxuries like flat-screen TVs can reduce in price dramatically and become commonplace, while common goods may increase in price due to quality.
  - Economists estimate consumer price indices have an inflationary bias of 1%, so real inflation is 1% less than the CPI.

- **Between nations**
  - The quality of output may differ, even if the quantity is identical.
  - Different age distributions will show younger nations to have less output, because younger people do not require healthcare costs that are counted in output.
  - Different currencies require conversions, where official exchange rates may not reflect actual purchasing power of currencies.
  - Free or subsidized goods provided by governments are valued at cost of production (usually higher than the price), while private goods are counted at the price of sale. This inflates the output of socialist economies.

- **Bulk GDP vs GDP per capita**
  - GDP per capita is a better metric of standard of living.
    - China has the 2nd largest GDP, but likely not a higher standard of living than #3 Japan.
  - However, GDP per capita can be misleading - Bermuda has a high GDP per capita, primarily from the wealth of a small minority of investors that may not distribute into the population at large.

National output and real income are one and the same - real income are the goods and services that can be purchased by the nation, which output are the goods and services produced by the nation. Thus, a nation can never “output so much that the economy cannot absorb it” - a common myth.

What can happen instead is that consumers and investors can become hesitant to part with their money (either by buying or lending), causing aggregate demand to fall below aggregate output, causing producers to cut back to stem losses.
Money

Money facilitates the production and distribution of wealth.

Barter of goods and services is awkward - if you make a chair, you may not want enough apples for the value of a chair, nor will the apples retain value for long. If you accept apples, you may then need to spend time finding someone else who will trade for apples. You might also produce fewer chairs, knowing it’s difficult to get paid for your chairs.

Money allows chairs and apples to be exchanged for an intermediary thing, which can be subdivided into very small units. When people agree on what will be used as the intermediary, that becomes money. To an individual, money is equivalent to wealth only because it can be exchanged for real goods and services.

Banking

What purpose do banks serve? First, they guard money, for which they economies of scale compared to individual businesses.

More importantly, banks supply businesses with money and lines of credit to businesses to bridge them over unpredictable drops in income and allow them to undertake large investments. Here banks also have economies of scale and riskpooling, reducing lending costs below those of their customers. In turn, businesses that borrow can operate on a larger scale, reducing cost and improving societal standards of living.

These loans arise from money deposits, which enable distribution of resources through the economy with banks as an intermediary.

A bank makes efficient use of its deposits for 2 reasons. First, not all depositors are going to want all their money at the same time, so they need only hold a fraction of the reserves. Secondly, banks settle transactions between each other not by transferring the literal amounts, but rather settling the difference in total balance.

Because of this efficiency, banks practice fractional reserve banking, wherein they hold only a fraction of the reserves needed to cover deposits (in the US, the reserve requirement is about 10%). They then issue loans and earn interest. These credits are re-deposited in other banks, allowing further rounds of expansion to occur.

The bank’s leverage and creation of credits means that a bank’s collapse would cause credits to disappear, reducing monetary demand.

The Federal Reserve is a central bank run by the government. It determines the reserve requirement, lends money to the banks at interest rates it specifies, thus indirectly controlling the interest rate the general
public receives.

Finally, banks also finance consumer purchases by extending consumers credit and paying for purchases.

In countries with lower trust in banks, like in India, much money is held in gold, which means a large portion of wealth does not finance investment to create additional output. Further, in countries with primarily state-run banks, money is often lent at a low interest rate to subsidize government projects, rather than finding the best use of the money with the highest returns.

**Bank Regulation**

The government tries to reduce banking risks but may create policies with unintended consequences.

- State deposit insurance laws forbade banks from having branch offices. While intended to protect local banks from larger banks headquartered elsewhere, it concentrated risk by forcing a bank’s depositors and borrowers in the same place, thus subjecting them to the same risk.
- Deposit insurance creates a moral hazard wherein banks may adopt riskier investments.
- The Community Reinvestment Act of 1977 sought to lower the barrier for home ownership for low income individuals, which pushed banks to lower mortgage loan approval standards to meet government quotas, contributing to the mortgage loan crisis in 2008.

**Inflation and Deflation**

**Inflation is a general rise in prices.** It happens when people have more money without a corresponding increase in the volume of output - thus people bid against each other.

**To increase wealth, government officials are often tempted to create more money and spend it** - an opaque and subtle change - rather than increase taxes. Not only are taxes inherently disliked by voters, they tend to reduce output since they reduce the rate of return on activities.

For example, fighting a war may require half a country’s output. For the government to buy this output, instead of taxing everyone a higher amount, it may choose to create more money for itself. This increases money supply just as consumer goods become more scarce (since output is diverted to warfighting). This leads to inflation.

**To prevent government abuse of creating more money, many countries have preferred using money that has an inherently limited supply, like gold.** When money is “backed” by gold, it means that gold limits the amount of paper money that can be issued. It does not prevent inflation or deflation, but it keeps both within narrower limits. Increases in supply of gold (like discovering large gold deposits) can increase prices.
Similarly, gold is preferred by some as a store of value, even though gold earns no interest. Increases in the price of gold reflect worry about inflation that can erode the power of official currencies. Likewise, long periods of price stability see gold prices fall.

Inflation disproportionately affects the poor, since the rich often have their wealth invested in assets that rise in value with inflation, like stocks or real estate.

**Doubling the money supply while fixing the amount of goods may more than double price level, since people may lose faith in the money and increase spending to convert money into assets.** This can lead to runaway inflation, as happened in Germany in the 1920s. In runaway inflation, producers find it risky to produce, since by the time they sell their output the price may represent less purchasing power than what they spent.

**Deflation is a general decrease in prices.** It occurs when less money circulates relative to output.

**Deflation can be a problem because debts are fixed in the absolute amount of money that is owed, even though that number now represents increased purchasing power,** effectively raising the payment amounts. For instance, a debt of $1000 started 5 years ago may now represent $1300 in purchasing power, and so the debtor likely has to pay a greater fraction of his income than before. Aggravating the problem, income tends to decrease in deflationary periods. Trouble for debtors becomes trouble for creditors as debtors default.

Similarly, companies that have already incurred costs for services at pre-deflation prices can no longer charge pre-deflation prices for their goods. This threatens the survival of the company.

Similarly, when wages were specified in contracts, workers who kept their jobs earned more purchasing power than originally signed. However, employers would tend to let go of workers since they were now more relatively expensive.

In deflationary periods, people hold onto their money for longer since employment and business stability are now more insecure. This causes fewer purchases, less production of new goods, with less demand for labor and unemployment, which then feeds back into a vicious cycle.

During the Great Depression, the US government made mistakes by raising the interest rate, fixing wage rates at pre-depression levels, and propping up prices of farm products - all moves that hampered investment and employment.

Aggregate demand is created not just by the government but also by credits and leveraged lending. When credits are liquidated, this reduces aggregate demand, just as if the official money supply had contracted.

**Government Functions**

**Law and Order**
Market transactions occur within a framework of rules, and those rules must be enforced for efficient economies to arise.

Economies with an unreliable legal framework, where application of the law is mercurial, increases investment risk and thus decreases the amount of investing relative to a reliable market economy. The laws don’t necessarily have to be fair - they just need to be reliable to reduce risk.

Economies with an unreliable legal framework are more likely to be corrupt, causing drag on the economy by increasing the cost of doing business and allowing bureaucrats to delay businesses. For instance, it takes fewer than ten days to start a business in Singapore, compared to 155 days in the Congo. Companies and talented people leave the country for a more hospitable place, and foreign companies are loath to hire local workers who may be dishonest.

Social Order

Business transactions among strangers are required for successful mass economies. If people don’t trust each other, transactions don’t happen, and the cost of business increases.

The “radius of trust” is different among different groups and nations. If the radius is limited to the nuclear family, then the size of the company is limited only to the size of the family, since owners don’t hire more workers for fear of theft. This drastically reduces the potential for economies of scale.

In small radius-of-trust societies, insulated groups whose members trust each other have a large competitive advantage, such as Hasidic Jews. The costs of doing business are lower. The social isolation makes it very costly for anyone in that community to lose her standing by cheating on agreements.

Government can promote honesty through laws, education, and examples set by public officials. If laws are poorly enforced or bad laws are created, it can be far more profitable to violate laws than to abide by them. Inevitably resources will flow to those who can profit most from them, lawbreaking will occur, and social order takes a penalty.

- Hence in rent control areas, unscrupulous landlords can turn an otherwise unprofitable building into a profitable one by accepting bribes from tenants unable to find housing, or by burning it down to make room for a commercial building.
- [Uber skirts employment costs and classifies drivers as independent contractors.
- Airbnb avoids hotel fees.
- Restaurants that practice tax evasion by accepting cash can offer lower prices.]

Property Rights

Chief among economically useful laws is property rights. Allowing individuals to have private property and keep what they earn creates powerful incentives for productive behavior. Property rights create self-
monitoring, which is more effective and less costly than third-party monitoring.

In contrast, the Soviet Union lacked property rights and the ability to freely make use of profits. Thus, neither profits nor losses connected back directly to the individual, thus removing incentive to work efficiently.

Another contrast to property rights is the treatment of resources without a dedicated owner - air and water are commonly polluted, for without regulation, there is little incentive to safeguard something you don’t own. “The only animals threatened with extinction are animals not owned by anybody.”

Even though they’re decried as tools of the rich, many property rights are actually more valuable to the not-rich, for collectively they often greater purchasing power. Thus in an open market, the poor can purchase mansions and build apartments to make better use of a scarce resource. Wealthy people have thus passed laws to restrict property rights, such as requiring land to be sold in lots of one acre or more thus pricing homes beyond reach of most people; or zoning building areas and forbidding building of certain types of housing.

Externalities

Marketplace transactions typically reflect the real costs and benefits that result. However, in some cases the transaction has effects beyond the transacting parties. An electricity company may transact with a coal producer to burn coal, but this produces smoke that damages people’s health and covers the area with soot. These people do not take place in transactions between the coal producer and the utility company, but they are affected by the transaction regardless.

Similarly, transactions may be beneficial to other people but not to you, and mandating these transactions may allow everyone to be better off. For example, having mud flaps on your truck doesn’t change your life, but other people having mud flaps improves your life considerably.

These are called external costs or “externalities,” and government can intervene to force transactions to account for externalities, through taxes or regulation.

Some benefits are indivisible - having the benefit helps everyone, regardless of whether they want it or not. Military defense works this way, where the same military protects the entire populace, even if payment were voluntary. If participation in military funding were voluntary, individuals might feel their stake were so low that they could “free-ride” off others - and if enough people think this, there might simply be an inadequate military. Thus the government funds military spending through mandatory taxes, so everyone contributes a share.

Outside of government, organizations can choose to enact collective action. Trade associations can share information and standardize products, benefiting themselves.
The Incentives of Government

In a popularly elected government, the incentive is to do what is popular and garners votes, even if the consequences are worse than those of doing nothing. Even worse, politicians are spending taxpayer money, not their own, so frivolous spending hurts them little.

Contrast political elections with the marketplace. In the marketplace, decisions can be made 1) instantaneously 2) for individual goods and services 3) that are wholly finished. In contrast, in politics, candidates 1) are chosen only once every several years; 2) come as a “package deal” - all their stances must be accepted or rejected in whole; 3) can only convey promises, not finished accomplishments, and thus constitute speculation.

No politician wants to be smeared as being against something that people generally value, like being “soft on crime” or against child safety. However, this can lead to categorical thinking, where certain things are considered absolutely bad and must be stamped out, regardless of the cost-benefit tradeoff. Constituents may contribute to this by having little grasp of the complexities of policy, instead falling prey to emotionally-charge rhetoric that is easier to understand. This can cause policies to be set that are net negative. Because policies typically have some conceivable benefit, the trend is toward more regulation, with few constraints on their growth.

Nor do politicians want to disrupt large voting blocs, like the elderly, government employees, farmers, factory workers, etc. [This naturally leads to large noticeable changes for specific groups that are spread subtly across the larger population, such as tariffs to protect manufacturing jobs or protection of pensions].

Even worse, political timelines are often much shorter than economic timelines, preventing the full consequences of policies from being connected to the original policies. For instance, changes to education can take over a decade to show material results. Thus politicians may push for shorter-term, less effective programs like building fancier buildings, rather than upending curricula.

Mistakes are handled differently by government vs market players. In the market, companies must reverse mistakes quickly or perish. In politics, admitting mistakes loses votes, and mistakes take long legislative periods to correct.

Some believe that politics is more democratic since each person gets one vote, as opposed to the marketplace where people with more dollars get more votes. But this ignores how wealthier people have better education and more time and resources to devote to political activities.

Finally, few people put as much time into deciding who to vote for as they do into deciding what job to take or whether to buy a house. [This is probably caused by a feeling that your vote has little effect. This belief in turn elects politicians who aren’t punished by withdrawing votes, which in turn reduces the feeling that your vote has an effect.]

People also have short memories and attention spans, so initial furor may spark legislation that is not closely monitored in the future. This allows for manipulation by politicians to reallocate funds that
were once designated for a specific purpose (like diverting a gasoline tax meant to maintain highways to finance bank interventions instead).

Furthermore, large governments have many branches that have competing incentives. This can cause inertia, where departments should have been privatized long ago but continue fighting to justify their existence [such as the post office, as the author implies].

**Government Intervention**

Due to the incentives above, governments are often pressured to “do something,” even when there is nothing they can do to make things better. To wait and watch is to risk political accusations of indecision and indifference.

This includes allowing recessions to run their natural course and lead to recovery. In the Great Depression, the unemployment rate never reached 10% for the 12 months following 1929’s stock market crash. But after unprecedented government interventions like tariffs and wage floors, the unemployment rate soared over 20% for 35 months. These responses are now widely considered to be bad moves.

In contrast, President Harding did largely nothing in response to a 1921 economic downturn except reduce government spending, and unemployment recovered the following year.

**Government Finance**

Governments must collect resources to pay for their expenditures - the US government spent $3.5 trillion in 2013. If revenues exceed spending, then there is a budget surplus; otherwise, there is a deficit, which can add up over time to the national debt.

**Government Bonds and National Debt**

The national debt tends to grow with inflation, population growth, and national income growth.

The debt is better considered not as an absolute number but rather a percentage of GDP.

In some cases, a high national debt is secondary to other concerns, such as fighting World War II. However, a high peacetime national debt is troubling, since there is no reduction in spending in sight as there is in the end of war.

Generally, to pay for current benefits like the military and civilian personnel, governments use tax revenues, allowing those benefited to pay. For investment projects like highways and schools,
governments sell bonds, go into debt, and essentially push the cost onto future generations who will benefit from the investment.

When these purposes are confused - when the government goes into debt to fund current expenditures - **this is as sensible as an individual borrowing more than current income to pay for dining this year.** Even though this is politically favorable since it avoids raising taxes, future generations will pay the price.

Much of the US government’s debt is held by its citizens, resulting in internal transfers. In effect, citizens buy bonds -> government gets money to spend -> bond comes due -> government collects taxes from citizens to pay bonds. When the bonds are held internationally, then future generations of Chinese will collect wealth from future generations of Americans.

The national debt can increase in size to a tipping point that discourages further investment. When the debt is large enough, investors will worry about the creditworthiness of the nation, as well as its ability to turn over these bonds without raising interest rates, which would in turn raise interest rates economy wide as other investment funds compete for investor funds, which would in turn reduce credit and aggregate demand.

**Tax Rates and Revenues**

Counterintuitively, **raising tax rates may not lead to higher tax revenues.** Higher taxes may cause people to move to lower taxed jurisdictions, like other states, or buy less of a heavily taxed good.

Similarly, lower tax rates may not lead to lower tax revenues. Lowering the capital gains tax in 1997 increased capital gains tax revenue since people increased their investments and diverted funds from tax-exempt bonds to higher-return investments.

In essence, changes in taxation can have nonlinear effects beyond the literal change in tax rates. **Beware of proposals with certain numbers like a “$500 billion tax cut”** since these are often based on (politically biased) assumptions. Congress provides assumptions to the Congressional Budget Office; governments apply optimistic rates of return on its coffers and make their liabilities appear smaller than they are.

**Tax Incidences**

People who have different sources of income and portfolios of assets will be affected differently by taxes.

**Wealthier people tend to have a greater percentage of their wealth in investments.** Poorer people spend a higher percentage of income on consumer goods. People with relatively high salaries may not be wealthy at all, depending on their spending and age - a 60 year old earning $120,000 after 30 years of work is different from a 30 year old earning the same amount, and both are different from a millionaire who has retired and is earning no wages.
Thus:

- Sales taxes are a “regressive” tax that charges higher percentages to lower incomes.
- Social Security taxes are regressive in that they apply only to incomes up to a fixed level.
- Higher high-bracket income taxes may tax hard workers at the end of their career, more than the wealthy who aren’t working.
- Without a change in tax brackets, inflation means increasing tax rates for a given real income.
- During a period of sustained inflation and high tax rates on capital gains, businesses are loath to invest, since they would have to pay taxes on number increases disproportionate with real value increases. (For example, investing $1000 today that yields $1040 next year at 4% inflation means 0% real growth, but requires payment of capital gains.)

Passing on Taxes

Who bears the real burden of a tax can be unclear.

**Mandatory worker benefits may be paid by the employer, but this can be directly reflected in lower wages for the worker and less employment** - thus the burden of taxes has actually fallen on the worker. For instance, a worker who adds $50k to a company might be paid $45k, but if the company were required to pay $10k in taxes for this worker, the company might bid no more than $40k for wages.

Taxes cannot be passed to consumers when applied to products in a jurisdiction, if the product is produced in other jurisdictions not subject to this tax. Charging $10 tax on ounce of gold in South Africa wouldn’t raise prices of gold by $10 in South Africa, since consumers could purchase similar gold elsewhere without this tax.

Local Taxes

Local property taxes and bonds account for much of the revenue of local governments.

**Local governments can increase property taxes by replacing low-valued property with higher valued property.** Eminent domain is one way to accomplish this, though it often means paying lower-than-market values for property since the outraged few owners are outnumbered by the many others who benefit. These lower prices are then distorting, since the new owners build something they might not otherwise build when they don’t have to bid the property away from the original owners. [However, practicing eminent domain will increase risk for investors for fear of being exploited later. It is also possible that eminent domain is justifiable in subsidizing investment in the city, which can have virtuous cycle effects once achieving a critical mass.]

**Bonds are popular since they essentially push the burden of today’s spending on future taxpayers, maximizing current political benefits.**
Many municipal and state bonds are tax-exempt, making them valuable for high-income earners who don’t really care what the bonds are for (unlike when they purchase stocks). Thus larger amounts of money than optimal may be available to fund local projects, with less consideration of their cost-benefit tradeoffs. [Theoretically, a town that needlessly collects money without improving the local economy will run out of money, thus limiting their future ability to issue bonds. However, the long time horizon may mean a longer time for correction.]

Selling Government Goods and Services

Government goods and services often have price distortions because politicians face competing incentives to avoid public backlash. **Those who set prices have incentives to assure continued demand for the goods and services they sell,** thus guaranteeing their own future employment. Furthermore, when revenues go into the general treasury rather than the account of the government agency, there is even less incentive to set prices to cover the cost.

For instance, public transit is often priced far below cost, since voters expect rigid fares even in the face of inflation (eg NYC’s 5-cent subway fare). National parks charge senior citizens a one-time $10 fee for a lifetime pass to gain the elderly vote. These losses were made up from tax revenues.

Much is said about justifying below cost prices to make services accessible for the poor. First we have to put aside the question about whether the poor are a permanent class or merely young people early in their careers who will grow wealthier, as discussed earlier. Barring this, it seems inefficient to subsidize all users of the service by charging all taxpayers more money, rather than charging the correct prices to the service's users only and directly helping the poor with money or vouchers.

Inversely, sometimes things are priced above cost, such as bridges that collect tolls well after costs have been covered. The agency in charge can continue collecting these funds to expand its bureaucratic empire.

Government Expenditures and Obligations

**Much of today’s government spending is grandfathered in from pre-existing laws, despite much blaming of today’s government officials.** These include pensions promised to future retirees and “guarantees” of loans (which appear to cost nothing until the guaranteed loans cannot be repaid, at which point the government needs to pay).

Government pensions like Social Security may seem comparable to private annuities from insurance companies. But insurance companies create real wealth by investing premiums, while government pensions create no wealth since they simply use current premiums from the population to pay current pensions to the retired, or to finance other government spending. [I don’t totally follow Thomas Sowell’s point here, since government spending can be seen as investments to grow wealth, eg education, infrastructure, while he cites only “fighting wars” and “paying for Congressional junkets.”]
It is politically advantageous to promise pensions that will be paid by future generations (who may not even be of age to vote), even if the future economics don’t balance out. European pensions are generous - in Italy the average working man retires at 61, but pensions cost 15% of the country’s GDP; pensions in the US pay 40% of pre-retirement earnings, while those in Spain pay 80%, and those in Greece pay 96%. A declining birthrate and increasing life expectancy are putting promised pensions at risk. Delaying the retirement age is one method to combat this, disguised as the euphemism “ending forced retirement.”

The real opportunity cost of a government expenditure needs to be considered alongside its literal cost. A government agency forbidding homes built in a certain area may cost little to maintain, but the economic cost in not having valuable assets built may be vast. Similarly, the costs of imprisonment may seem very large, but this needs to be compared to the cost of having career criminals at large in society.

Governments tend to be “automatic stabilizers” in that their revenues and expenses counteract the economy’s momentum. In deflationary times, when production and employment reduce, the government collects less tax revenue and pays more in unemployment and subsidies - thus adding purchasing power and cushioning the decline. Conversely, when production and employment boom, more tax revenues are collected and fewer benefits are paid out, allowing the government to remove purchasing power and holding back inflation.

Politicians also tend to spend on flashy things that earn them press and votes, rather than less sexy infrastructure improvements - football stadiums, rather than fixing potholes. [Ideally you would have a report card of government expenditures and the anticipated ROI to inform voters - though agreeing on the metrics would likely be controversial.]

Misc Points About Governments

- The fallacy of composition misleads impressions of the overall economy by:
  - Assuming that what applies to a part applies to the whole
  - Ignoring interactions among individuals
  - An intervention to save jobs in one industry may be at the expense of more jobs in another industry
- Historical currencies
  - In WW2 POW camps, cigarettes were used as money, showing phenomena like interest rates and Gresham’s law (the less valuable currency is the one that is circulated - here, the best cigarettes were kept for consumption).
  - In Micronesia, large rocks functioned as money. They couldn’t be picked up, but what circulated was ownership of these rocks.
- Liquidity
  - An asset is considered liquid when it can be converted to money without losing its value. Selling a diamond for a dollar quickly does not make it liquid.
• Federal Reserve
  ○ Because the Fed has a huge influence on the national economy, chairmen have “learned to speak in highly guarded and Delphic terms” to avoid disrupting markets.
• UN reps have diplomatic immunity from local laws; Kuwaiti diplomats recently had 246 unpaid parking tickets in NYC, while those from Denmark, Japan, and Israel had 0. Sowell argues this reflects the culture’s honesty.
• “Catch words can delay further analysis for fifty years” - Justice Holmes. Phrases like “tax cuts for the rich,” “death panels,” etc.

International Economy

The penultimate section of Basic Economics deals with international trade. In essence, the principles so far that govern activity within a nation apply generally between nations as well.

International Trade

International trade is not a zero-sum game, where one country is a winner and another is a loser. Both sides must gain or it makes no sense to trade.

The same concepts that apply to transactions within a single nation also apply between nations. Freer trade allows scarce global resources to go towards their most valuable uses.

This may mean a loss of jobs in one sector with creation of jobs in another, but the economy is overall more efficient and the population at large benefits. Just as relaxing of interstate trucking restrictions in the US decreased jobs in railroads but created jobs in trucking in the same country, trade with manufacturers in Asia may lead to loss of manufacturing jobs but an increase in engineering or marketing jobs in the US.

There is no fixed number of jobs for countries to fight over - when countries become more prosperous, they tend to create more jobs.

There are three primary reasons countries gain from international trade: absolute advantage, comparative advantage, and economies of scale.

Absolute Advantage

Some countries are simply more efficient at creating a good or service - due to climate, geography, or skills. Prices are lower and consumers can enjoy more of it than without trade.

Bananas are grown more cheaply in the tropics because the sun provides cheap energy. In efficient trade, buyers in Iceland can buy cheap bananas from the Caribbean so that Iceland doesn’t have to invest scarce resources in producing bananas at a higher price.
Indian tech support has a valuable advantage in being 12 hours ahead of the US, thus allowing US companies to provide round-the-clock support for cheaper than hiring graveyard shifts domestically.

A prosperous country tends to have more and cheaper capital, which gives it an absolute advantage in highly-capital intensive projects with high fixed costs.

**Comparative Advantage**

A country might be so efficient that it produces anything more cheaply than another country. In this case, **it still benefits the more efficient country to focus on what it is relatively more efficient at producing and export that in exchange for other goods**. This allows more total goods to be produced than if both countries tried to produce everything themselves.

For instance, consider a surgeon who is quite capable at washing his car as well as removing brain tumors. Putting his personal enjoyment aside, it’s much better for the surgeon to spend 2 hours in the surgical room than washing his car - he produces more relative value, and can trade the money he earns for other goods.

Here’s an example:

<table>
<thead>
<tr>
<th>Products</th>
<th>US Workers</th>
<th>US Output</th>
<th>US Output/Worker</th>
<th>Canadian Workers</th>
<th>Canadian Output</th>
<th>Canadian Output/Worker</th>
</tr>
</thead>
<tbody>
<tr>
<td>chairs</td>
<td>200</td>
<td>100,000</td>
<td>500</td>
<td>200</td>
<td>90,000</td>
<td>450</td>
</tr>
<tr>
<td>TV sets</td>
<td>300</td>
<td>60,000</td>
<td>200</td>
<td>300</td>
<td>30,000</td>
<td>100</td>
</tr>
</tbody>
</table>

In total, 190,000 chairs are produced, and 90,000 TV sets are.

The US worker produces more chairs and TV sets per worker than Canada does. However, the US has a larger advantage in TV sets per worker than it does in chairs. Thus, if the US focuses all its workers on TVs instead:

<table>
<thead>
<tr>
<th>Products</th>
<th>US Workers</th>
<th>US Output</th>
<th>US Output/Worker</th>
<th>Canadian Workers</th>
<th>Canadian Output</th>
<th>Canadian Output/Worker</th>
</tr>
</thead>
<tbody>
<tr>
<td>chairs</td>
<td>0</td>
<td>0</td>
<td>500</td>
<td>500</td>
<td>225,000</td>
<td>450</td>
</tr>
<tr>
<td>TV sets</td>
<td>500</td>
<td>100,000</td>
<td>200</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
</tbody>
</table>

In this case, 225,000 total chairs and 100,000 TV sets are produced, more than in the previous case. Both countries can now enjoy cheaper prices for both produces, and trade their surplus goods for what other countries produce.

Here the US has an absolute advantage in producing both products, but Canada has a comparative advantage in producing chairs.

[This is a simplistic example assuming chairs and TV sets have the same value.]
If US workers produced chairs and Canadians produced TVs, you would end up with 250,000 chairs and 50,000 TVs - not strictly better, depending on the value of chairs vs TVs].

Likewise, Great Britain does not produce enough food to feed its people. It focuses on its comparative advantages in manufacturing, financial services, and shipping to buy food from other countries. It would cost the British too much in labor and resources to give up its industry to become self-sufficient in food, even if another country’s farmers are not as efficient as British farmers.

This can be heartening for poorer countries. Every nation can produce some products more efficiently than they can produce other products - meaning it has a comparative advantage in something.

[Likewise, I have heard an argument that comparative advantage provides existential meaning to everyone, regardless of your abilities. Even if you feel you pale in comparison to demigod humans who seem good at everything, you can still contribute to the economy by working on what you are relatively less bad at - thus the janitor at SpaceX is still contributing to the mission.]

**Economies of Scale**

Some goods require high fixed costs and large volumes to be profitable. Countries that have smaller populations cannot produce goods at a great enough scale to be priced competitively. For example, Australia doesn’t produce its own cars, since its small market makes it unable to compete with efficient, large-scale American or Japanese manufacturers.

Exports enable countries to achieve economies of scale that would not be possible from domestic sales alone. Heineken sells far more beer worldwide than in the Netherlands; Taiwan sells far more computer hardware than the Taiwanese market can support. All countries importing these products benefit from the efficiency and lower prices.

[There are virtuous cycle effects here, wherein a starting comparative advantage gives a country business to produce a good, which allows it to make further investments and become more efficient, which gives it a greater comparative advantage - possibly even an absolute one. In some cases it may thus make sense for a country to invest in an area of expertise to provide a critical mass to kick off this virtuous cycle.]

**International Trade Restrictions**

The same frictions felt for domestic trade apply to international trade as well. Various reasons are given for barriers to international trade, some more accepted than others. In general, when a trade dispute is presented as our country vs theirs, in reality it’s more special protected interest vs general consumers. “Globalization” is a common keyword meant to create FUD.

Restrictions can occur in the form of higher tariffs, import quotas, or health and safety rules. While tariffs
are transparent, more opaque barriers can increase domestic prices without clear cause-and-effect. If you’re a Spanish strawberry exporter, and US regulation on strawberry imports requires a week to get through customs and causes spoilage, then you might as well not export to the US.

**Difference in Wages**

Much is said about how American goods can’t compete with goods produced by low-wage workers in poorer countries. In reality, American workers produce more per worker-hour than poorer elsewhere; thus they are more efficient per unit of output. The efficiency may arise from better machinery, more capital investment, or greater economies of scale.

It’s estimated that the average labor productivity in India is 15% of that in the US. Hiring an Indian worker for 20% of a US worker’s cost would be more expensive [though allows for finer segmentation of work.]

Furthermore, high-wage countries have been exporting to low-wage countries for centuries. Britain was the world’s largest exporter in the 19th century despite higher wages than in most recipient countries.

**Saving Jobs**

Superficially, tariffs seem to protect domestic jobs - if you import less of a good that is also produced domestically, then you preserve those jobs. **However, this reduces efficiency of all countries, lowering standards of living and prosperity, which reduces jobs.**

During the Great Depression, higher tariffs led to retaliatory tariffs by other countries. Thus American farmers lost in net balance, and unemployment worsened.

In the 1980s, steel industry jobs fell from 340k to 125k, prompting restrictions on steel importation. This led to higher prices for steel and all steel-derived products (cars, oil rigs), and thus their ensuing products (shipping, oil), in the US. All these products were now at a disadvantage internationally. It’s estimated that steel tariffs produced $240MM in profits to steel companies and saved 5k jobs in steel, while costing $600MM in profits and 26k jobs in other industries.

Politically, a vocal special group of 500k facing large pains (losing jobs in one very focused industry enriched in a geographic area) may have more influence than 100MM individuals with modest gains (cheaper goods and more jobs distributed nationwide). It is also easier for people to empathize with clear transparent losses than with modest systemic benefits.

However, just as automobiles obviated the horse industry, changing international trends (like a country with rising comparative advantages) require shifting of domestic labor to areas of domestic comparative advantage - aka losing jobs in one sector while gaining in another.
If the EU permitted 100% free international trade, every worker who lost his job could be paid $100k in compensation, and the EU would still come out ahead.

**Dumping**

Dumping is a form of predatory pricing where a country exports goods at low costs to drive international companies out of business, after which it can control prices through a monopoly.

Thomas Sowell cites **dumping as pricing below cost of production**, but it has also been defined as lower prices than offered domestically in the country of production.

As previously explained, it can be ambiguous what is predatory pricing and what is merely the result of economies of scale. It may make sense for Taiwan to offer lower-priced computer chips to America, which buys 100x the volume that Taiwan does. Production cost can be difficult to determine.

Politically, it often becomes easier to accept charges of dumping with murky evidence, often pushed by domestic business special interests.

**Legitimate Restrictions on International Trade**

Surprise! Economists justify restrictions on international trade in a few circumstances - but these are often warped to become counterproductive.

A country that wants to develop expertise in an “infant industry” may block it from competing with more mature foreign competitors. [China did this to great effect in internet technology, stifling Google, Facebook, and Amazon to allow its native Baidu, Tencent, and Alibaba to arise, leading to its own economies of scale and domestic skills.] In practice, however, new industries seldom have enough political muscle to get protection; often old inefficient industries tend to get protection.

For national defense, a country may hesitate to import military equipment from nations that could become enemies in the future, or to export technology to them. [Hence the US trades more defense with Canada than it might with China.] However, this rhetoric can be used to protect products only tangentially related to military defense in the interest of “national safety.”

**International Transfers of Wealth**

Transfers of wealth between countries take several forms:

- Direct investment through stock and bond investment
• Putting money in a country’s banks, which will then issue loans domestically
• Remittances from outside workers back in to family
• Imperialists transferring wealth from nations they conquered (now more obsolete)
• Foreign aid

International Investments

Capital flows from where it is abundant and cheap (in terms of interest rates) to where it is in short supply (which can offer higher rates of return).

Ideally, wealthy nations would invest much in poorer nations. However, rich countries tend to invest in other rich countries - out of $21 trillion in international bank loans, only $2.5 trillion went to poor countries. (This contradicts the claim that multinationals are exploiting Third World workers - if it were such a great deal, then American investments wouldn’t be primarily into other rich countries.)

In practice, poorer countries discourage investments due to high risk from unstable governments and risk of confiscation, corruption, and inadequate financial infrastructure.

Trade Deficits and Surpluses

There are many problems with typical considerations of national trade deficits and surpluses.

Much is said about how excessive importing (or trade deficits) impoverish a nation because money is being transferred out of the country. This is true if a nation’s wealth is seen as its gold supply, but Adam Smith argued that the real wealth consists of its goods and services.

Trade balance is not necessarily predictive of economic health. In the Great Depression, the US had an export surplus, but both imports and exports were sharply reduced as a result of higher tariffs around the world. Nigeria has had trade surpluses in the recent past but is a very poor country.

There are also misleading accounting practices. When countries have a trade surplus, they have more of a foreign currency, which they often use to invest in the local economy. If Americans buy more Japanese goods than the opposite, then Japan gets US dollars, which often never leave the US - the dollars are invested in American factories and employing workers, or in goods like Rockefeller Center.

However, standard accounting practices consider only physical goods that move in the international trade balance. This ignores trade of services and investments that “don’t move” like Rockefeller center. Thus, typical accusations of trade deficits and surpluses are often deceptive. Naturally, the US exports more services than it imports, which isn’t counted.

Similarly, when people in other countries buy American bonds, the US can be considered a “debtor,” which sounds scary. But in reality this is a sign of faith in investments in America - the more prosperous
it is, the higher the international “debt” rises. Similarly, each time you deposit $1000 into a bank, the bank is “indebted” to you for that money; and when other people invest their money in, it goes further into debt. But banks would gladly take as much money as you can offer, so they can offer more loans elsewhere.

**Debt actually becomes troublesome when you run up debts beyond your means of repayment** [in the national case, when Americans agree to over-optimistic interest rates and default on debt, due to bad investments or faulty assumptions], or when governments borrow money to cover the difference between exports and imports.

Finally, what matters is the **size of the trade difference and level of foreign investment**, relative to the whole economy. In 2011, the American trade deficit was 5% of the total GDP. In the 19th century, foreign investment financed 6% of capital formation in the US.

### Remittances and Human Capital

Remittances to poorer countries account for 2.5x the value of foreign aid to those countries. These are valuable investments to the recipient countries.

There is often local controversy against immigrants who remit money back to their home countries, as though this were impoverishing local countries for benefit of foreigners. However, this ignores the fact that the **remitters have generated more wealth locally than they are able to send back**. When hostility leads to policies that expel immigrants, the local economy can decline.

Influx of human capital can be a huge boon, as enjoyed by the United States, while emigration can cause economic losses. Germany lost large Jewish talent in World War II to the United States. (Fun fact: 4/5 of doughnut shops in California are owned by people of Cambodian ancestry.)

However, immigrants can also bring costs in terms of disease, crime, and terrorism. 2% of Japanese immigrants to the United States go on welfare, while 46% of Laotian immigrants do. Immigrants from corrupt countries tend to bring crime to their new host countries.

### Imperialism

Conquerors in history have indeed enslaved populations and plundered local wealth, transferring it back to the host country. However, these funds were often used more for profligate consumption rather than investment and labor, as in the Spanish empire.

However, profits from modern European empires, like the British empire, were economically negligible - and possibly negative in value - compared to trade with other rich countries. In the early 20th century, the British invested more in the US than in all of Asia and Africa put together. Similarly, Germany and Japan...
lost its colonies after World War II, but, given their resurgence after recovery, the colonies were clearly not necessary for their success.

**Foreign Aid**

Foreign aid is a transfer of wealth from foreign governments and organizations to governments of poorer countries. It is often meant for economic development, but instead often enriches existing politicians who entrench their influence, or funds government enterprises that lack the incentives of private enterprises.

**Part of the reason foreign aid is ineffective is that poorer countries lack not just financial capital but also human capital, which is much harder to develop.** The Marshall Plan in Western Europe after World War II was successful because the countries merely resumed their previous way of life, with existing human talent.

Further, foreign aid deployed incorrectly can cripple local economies. When the United States heavily subsidized Micronesia, many locals abandoned activities required to support themselves before. Likewise, donations of cheap excess foreign goods can cripple local economies in those industries (like donations of clothing impeding textile industries). [Though per comparative advantage, this might be net positive.]

Much is said about how America lags other rich countries in the % of national income that is sent in foreign aid. However, 90% of the wealth transfers to poorer nations from the US takes the form of business investments, remittances, or private donations.

**On Currency**

Stability of currency between two nations promotes investment, while instability creates risk (e.g. a debt fixed at one currency value can become vastly more expensive when exchange rates fluctuate).

In the past, fixing multiple currencies to the gold standard allowed for more predictable stability and discouraged governments from resorting to inflation. Similarly, pegging currencies to the dollar, or creating aggregated currencies like the Euro, allow for stability.

Further, instantaneous electronic transfers of money provide accountability for governments, since any government tempted toward inflation knows that money can flee from their economy in a moment.

Much is said about “strong” and “weak” currencies, but a strong currency doesn’t necessarily mean the economy is better off. Strong currencies make exports less competitive, since their effective prices in other countries have risen, while it makes imports cheaper.

[Why don’t export prices fall to become more competitive, when the currency’s purchasing power
International Disparities in Wealth

The vast differences in wealth between people living in different countries can be emotionally troubling. However, Thomas Sowell argues that **given the vast differences in factors underlying economies (geography, natural resources, culture), as well as the interaction of such factors, it is impossible to expect economic equality across the world.**

Places with inherent advantages had more opportunities to develop urban industrial, commercial, and financial skills than disadvantaged areas. These advantages can kick off virtuous cycles that widen the gap.

(Quick note: one study claimed that inequality is rising, because the ratio of the incomes of the top 20 vs lowest 20 nations increased from 23:1 in 1960 to 36:1 in 2000. However, this is misleading because the identity of the nations had changed - when comparing the same 20 countries in 2000, the ratio had declined to 10:1.)

Relevant factors that differ between nations include:

**Geography**

- Agriculture
  - Land differs in fertility.
    - Fertile mollisols are found in the American midwest and Eurasia. They are seldom found in the tropics or sub-Saharan Africa.
  - Rainfall, and even different absorption of rainfall.
    - Loess soil in northern China holds more rain than limestone soils in the Balkans.
    - Sunlight.
  - Lack of agriculture inhibits development of cities, which spur economic growth.
  - [Guns, Germs, and Steel argues that the vast tracts of land in the same latitude in Western Europe - and thus a consistent climate - facilitated spreading of agricultural practices, compared to the longitudinal orientation of Africa with varying climates]

- Natural resources

- Water access
  - Water transport is far cheaper than land transport. Thus access to waterways increases imports and exports.
    - Calmer, flatter, contiguous, more consistent waters like European or Chinese rivers were far more helpful than sub-Saharan rivers that suffer huge plunges in elevation, vary dramatically in depth and width by season, and don’t connect continuously; or
Eastern European rivers that flowed inward into inland seas or the Arctic Ocean (rather than outward into the more useful Atlantic) and were more likely to be frozen.
- Even though Africa is twice the size of Europe, it has a shorter coastline due to fewer twists and turns and less surface area.
- It’s cheaper to load large volumes of goods directly onto ships docked near shore, rather than requiring large vessels to anchor offshore and require loading and unloading with smaller vessels.
- Water is also drinkable, used for irrigation, and provides marine food.

• Mountains and Isolation
  - The slow speed and cost of traveling through mountains means less open trade, exchange of ideas, and economic opportunities. Thus mountainous regions tend to lag behind lowland areas and become insular communities.
  - Cultural differences (language, way of life) and skill differences that develop over centuries in mountains areas persist when people move away - for instance, Appalachian people and Scottish highlanders tend to be poorer even in new environments.
  - Isolation can occur on islands, deserts, and other geographic barriers.
    - The Canary Island natives discovered in the 15th century were in the stone age level.
  - Ironically, mountains can provide valuable water to lowland regions.

• Animals
  - Horses increase transportation range and increase the size of the “cultural universe.”
  - Oxen allow for more efficient agriculture and enable more trade by carrying cargo from ships.

• Location to other cultures
  - Agriculture first started in the Middle East, giving mediterranean Europe earlier access to agricultural practices than northern Europe.
  - Koreans and Japanese adapted Chinese writing to develop languages, developing faster than more remote Asian societies.

Cultures

- Even with geographic advantages, culture can impede economic growth.
- Honesty and abiding by the rule of law increases trust, spurs broader trade outside one’s trusted circle, and promotes less risky investment.
- Geographies that give resources aplenty can make humans develop less productive habits.
  - A tropical land that produces crops all year creates less urgency with time and self-discipline, compared to colder areas where people must begin plowing as soon as the spring thaw arrives to raise sufficient crop before the winter months to avoid starving.
  - Similarly, the need to store food in winter (as well as the ability to store food in colder temperatures, period) can promote a culture of frugality and saving.
  - “Living in harmony with nature” can make a culture less resourceful and efficient [or rapacious, depending on how you look at it].
- Some cultures seek progress rather than stay contented with the status quo.
  - The antebellum South tended to adopt new technology and create patents at lower rates than the North.
Some cultures are more receptive to new ideas from outside; others isolate themselves.

- The Ming Dynasty in 15th century China isolated itself from the outside world, convinced of its clear superiority over barbarian nations, and its desire to focus inward to fight a Mongol threat.
- In the 17th century, Japan became isolationist to ward off foreign threats to political stability, such as encroachment of Spain/Portugal, Christianity, and foreign support of feudal lords (daimyo) who might gain too much power and overthrow the shogunate.
- The Middle East translates 3 orders of magnitude fewer books into Arabic than Spain or Greece.
- Smaller tribal societies find it harder to combine with others to form large nation-states and remain vulnerable to marauders or imperial conquerors.
- However, while Britain and Japan both started off as poor island nations, they were alike in absorbing advances from other cultures.

Some cultures discriminate within its society (by gender, class, caste, religion, race), preventing the best ideas from winning out.

- Limiting the potential of all people can only be limiting and less productive.

Some cultures practice more xenophobia and less meritocracy than others.

- Cited by Thomas Sowell, an Indian ethnic spokesman asked, “Are we not entitled to jobs just because we are not as qualified?”
- Xenophobia and clashes can lead to closing off foreigners and outside influences, once again limiting the best ideas from coming through.

Furthermore, these factors interact with each other and depend on timing.

- Technology affects the value of natural advantages.
  - Heavy soils in Europe became fertile only after harnessing oxen to plow, but these very soils were infertile in earlier centuries.
  - Oil in the Middle East became profitable in the 20th century, but primarily because the technology to extract such resources and make them useful made this possible [and also because global politics had changed - 200 years earlier, it might have been colonized and the resources siphoned to rich countries with little local investment.]
- Exposure to specific other cultures and technologies increases the size of the cultural universe.
  - In the 17th century, Europeans had had centuries of access to knowledge across Asia, the Middle East, and North Africa, using gunpowder, paper, and math. Meanwhile, Native Americans had a much smaller cultural universe, without ways of knowing other people even existed.
- Cultures that share common language tend to share more knowledge with each other.
  - Thus British industrialization spread more readily to the United States than to closer countries in Europe.
- Movement of peoples can result in displacement of existing culture, assimilation by migrants, or addition of a new culture.
- Poverty tends to be self-reinforcing. Parents have more children since child mortality is higher; children are put to work earlier, depriving them of education and economic opportunity.
- Culture tends to persist, even when people leave their host culture.
  - Tropical zones tend to be poorer, but immigrants from richer countries have prospered there.
• Even more culturally and advanced cultures can be destroyed by more militarily powerful peoples.
  ○ The Roman Empire was destroyed by barbarians, perhaps setting progress back by centuries.
• History leads to different population structures, such as growing vs shrinking; young vs old.

Given the large number of factors influencing economic growth, as well as the complex interaction of these factors, as well as mere happenstance, it seems foolish to expect roughly equal economic outcomes throughout the world. Rather, the more productive approach is to understand how the different factors at play can promote economic growth and impede it.

(Side note: Thomas Sowell dismisses imperialism and slavery as major contributions to economic inequality, given 1) some empires likely the Spanish simply consumed the wealth it gained, rather than investing it in the economy; 2) colonies in modern empires like Britain’s were economically negligible compared to trade with rich nations; 3) large economic disparities already existed before these conquests.)

Myths about Markets

Many misconceptions have been addressed above. We’ll summarize important ones here for good measure.

The market as a thing, not as humans

A market is just humans engaging in transactions among themselves. When it’s treated instead as a depersonified, third-party entity, rhetoric is allowed that takes away freedom from humans to transact on mutually agreeable terms.

Instead, restricting markets should be treated as subjecting humans to the will of third parties. [For instance, wage control laws may be seen as “preventing landlords and tenants from exchanging on the natural market price, thus leading to undersupply and inefficient allocation.”]

Profits as gratuitious

Profits have been seen, at different times throughout history, as gratuitous overpayment beyond costs that restrict standard of living of people at large. Implicit in this is the assumption that whatever profits entrepreneurs and investors earn exceed the value they contributed.

However, it’s clear that without private property rights and financial incentives, as in the Soviet Union, living standards simply worsen. People simply do better jobs when they have a personal incentive to do a better job than when they don’t. [Deeper reasons for this are not explored in the book, but are
likely contributed to through innate biology and general inability of humans to act like self-sacrificing
 drones in a hive.]

No one would say that wages were just arbitrary charges added to the price of goods for the benefit of
 workers, when the product would not exist without the workers, and they wouldn’t work without being
 compensated. Yet the same is true of entrepreneurs and investors; the risks of failure and difficulty of
 work on that level are just often more opaque than literal profits.

An economist would argue - **the profits an owner earns are exactly the measure of the owner’s
 contribution to production.** If the same contributions were available from others at lower cost, then
 those options would already exist. [This is an idealized generalization.]

### Different prices for the same thing

Physically identical things often have different prices because of different conditions. Cheerios may be
 more expensive in a modern supermarket with warm customer service, generous refund policy, in a
 location with more expensive real estate, and more consistent inventory; than in a remote budget
 warehouse store with spotty inventory.

### “Reasonable” or “affordable” prices

Saying prices should be more reasonable is to say that economic realities should adjust to our budget or
 what we are willing to pay. [This feeling seems to arise from coveting something scarce that you cannot
 have.]

In an effort to reduce prices, governments may forcibly lower prices without lowering corresponding
 costs. The costs to produce something are what they are; instead the costs are shifted from the buyer to
 society at large, eg through taxes or lower quality goods.

### Function of brand names

Brand names are sometimes considered a psychological trick to charge a higher price by persuading
 people there is a quality difference that doesn’t exist.

Functionally, **brand names signal higher quality because the brand owner has more to lose by
 offering low quality.** If you drive into town and eat at a local diner and get poisoned, you have less
 recourse and the diner owner has less to lose - he may simply disappear or go bankrupt, with little
 consequence to anyone else.
In contrast, if you get poisoned at a McDonald’s, you can publicize the story or sue for damages, which can instantly extend to lower business at thousands of other branded stores. **Thus owners of brands like McDonald’s have more at stake to insure quality, which itself increases quality.** [This can only increase with increased fluidity of information through the internet, like recent outrage over airline mishandling of baggage or Uber passenger harassment.]

**Brand names aren’t guarantees, but they do reduce the range of uncertainty.** They force producers to take responsibility for what they make, suffering consequences for poor quality.

[Implication: brand names have greater value in remote regions with fewer pre-existing brands and weaker legal recourse for mistreatment, possibly explaining the rapidity of “globalization” and brands worldwide.]

**Brand names are substitutes for scarce knowledge.** If you know how to assess quality among offerings without brand names, you can likely get a better deal.

Interesting: in the absence of brands, as in the Soviet Union, consumers learned to read barcodes to identify goods that came from more reliable factories.

Some assert that brand names are “all alike” and that they serve no function. This is the wrong conclusion - the better question is whether all brands are better because they are branded rather than generic and interchangeable.

### Non-profit organizations

Normal profit-and-loss businesses have strong incentives to respond to feedback from both customers and investors. These outside forces counteract the tendency of insiders to use the organization’s resources to benefit themselves - an owner who reinvests little of the company’s profits may find her product failing relative to competition, thus reducing the very ability to earn profits in the future.

**Non-profit organizations are thus insulated to varying degrees from responding to this feedback.** [Legally, a non-profit cannot distribute surplus income to shareholders, which means there is less incentive to be efficient.]

Non-profits are often funded primarily by donations, and secondarily by revenue. This often means the **product offered is heavily subsidized**, and “customers” are not paying the full cost of the product or receiving it for free. In turn, this means the **customers wield much less pressure on a non-profit** than they otherwise would as fully-paying customers of a profit-and-loss business. [In other words, even if an organization’s customers decided to completely boycott the company, the org would still survive from donations.] In cases where the non-profit issues grants of money, the recipients are in no position to influence the way the non-profit operates.

Similarly, **donors to non-profits cannot closely monitor what happens to donations.** Many of the largest donors may be deceased. It’s thus common for organizations to veer from their original mission to
benefit current officials. Granting academic tenure in universities, allowing professors to shirk their duties, can be considered one example that is unheard of in for-profit companies.

[Another contributory factor is that investors in non-profits are not looking for financial returns, so there is less pressure to be efficient. What are investors buying then? Perhaps they’re buying the feeling of impact - which in the ideal case is the actual real world impact, but often is merely a distillation of impact through colorful reports.]

As with other market distortions (like artificially low prices in rent control), non-profits can behave in ways that reduce inefficiency, like hiring discrimination, because there is a surplus of applicants.

It might be tempting to consider that non-profits may be as effective as for-profits. If true, this would suggest that non-profits should take away customers of for-profits and grow larger over time. In reality, the reverse is more likely to occur, where non-profits hospitals, universities, and even social aid programs have increasingly been displaced by for-profit organizations.

[From the most generous viewpoint, nonprofits may be subsidizing services that for-profit enterprises underestimate the value of, or find difficult to extract value from - like malaria bednets or teaching kids how to read (because you can’t take a fraction of their future wages). Basic science research may be too high-risk and take too long to commercialize for any single company to fund adequately. Governments should provide these services, but we already know how misaligned political incentives are.]

Non-economic values

Economics can seem too calculating and ignorant of “non-economic values.” Instead, Thomas Sowell argues economics is merely a way of weighing one value against another - it does not prescribe anything like making the most money possible or how to make use of wealth. In this sense, all values are “non-economic values.”

People dislike economic arguments when they prefer not to consider tradeoffs of their values against anything else. If they want to preserve a historic building, they don’t want to consider how that money might be better used vaccinating kids in Africa. To them, economics is a nuisance that obstructs them from what they’ve set their hearts on doing. In reality, we live in a resource-scarce world with constraints that requires tradeoffs.

The value of a human life is particularly controversial. Many justifications of great expenses rest on being “worth it just to save one human life.” But clearly a life doesn’t have infinite value - few would favor spending the entire GDP of the US to keep one person alive for 1 minute longer. Given that this extreme is untenable, the reality must be somewhere on a spectrum and not an absolute.

Furthermore, this argument ignores alternative ways to save human lives in other ways, like generating more wealth. If a human life is by consensus valued at 1 million dollars, then a policy that costs 10 million dollars can no longer be considered worth it “to save one human life” since it effectively costs 10
human lives.

A related feeling is the decrying of Wall Street greed - that the demands of financial analysts are insensitive to the idealistic needs for newspapers or American manufacturers to continue existing without a profit. But this ignores the needs of many other people who are stakeholders - like millions of pension holders who don’t want low rates of return on money invested in newspapers. People who make arguments like these are asking for special treatment of an in-group at the expense of other individuals, often summarized in impersonal terms like “the marketplace.”

Imprecise Predictions in Economics

Economics is rigorous in the sense that data are used to resolve mutually contradictory theories. However, it suffers from the inability to conduct controlled experiments, reducing its precision and repeatability.

Yet fields like astronomy don’t allow controlled experiments and are still highly accurate - why? In economics as in metereology, the principles are sound, but there is great complexity in the combinatorial interaction between variables, as well as the uncertainty around which principles apply in a particular situation at a particular time. Likewise, in metereology, it is known what happens when

Brief History of Economics

- 1600s-1700s: mercantilists argued that a nation should export more than it imports, causing a net inflow of gold. They equated gold with wealth. They were preoccupied with transfers of wealth and increasing the power of their own nations relative to that of other nations, not creating wealth for people at large. This supports policies like repressing wages to lower export costs.
- 1776: Adam Smith published The Wealth of Nations, conceiving of economic activity as creating wealth and non-zero-sum. He saw wealth as the goods and services as determining the standard of living, not as the amount of gold. He rejected government intervention to help merchants, believing individuals could sort out interactions with each other just fine. This builds the foundation of classical economics.
- 1817: David Ricardo published Principles of Political Economy, adding rigor to terminology and analysis of economics. He also introduced the theory of comparative advantage.
- 19th Century: Say’s Law: Argued that production of output and the generation of income for those producing the output were one and the same. This addressed popular fears that growing output would exceed the ability of people to buy it, leading to unsold goods and unemployment.
- 19th Century: The “marginalist revolution” allowed price theory to incorporate the demands of consumers, rather than just the costs of producers, giving rise to neo-classical economics.
  - Previously, the fact that diamonds cost more than water contradicted pricing based on consumer demand, given that water was critical to life and diamonds weren’t. But this analysis compared the total utility of water vs the total utility of diamonds - arguing
humans were better off with no diamonds than with no water.

○ But innovations in marginal utility resolved this issue - utility is subjective and depends on how much of that good the consumer already has.

○ This was expressed precisely through differential calculus.

- **20th Century**: Equilibrium theory arose to illustrate the complex interdependencies of economic activities.

  ○ Even though the real world is seldom in equilibrium, theory usefully illustrates what happens when things are not in equilibrium.

- **1936**: John Maynard Keynes published *The General Theory of Employment, Interest and Money*, giving rise to Keynesian economics, which explained changes in aggregate output and employment, and argued for government intervention to restore an economy in depression. It allowed tradeoffs between rates of unemployment and rates of inflation in the Phillips Curve.

- **1970s**: Milton Friedman and the Chicago school of economics found the market more rational and responsive than Keynesians assumed.

  ○ Inflation and unemployment simultaneously rising in 1970s undermined the Phillips Curve tradeoff concept.

### Open questions

- While the efficiency of markets seems obvious now, over the 20th century it seems this was of great controversy relative to socialism.

  ○ **What within economics will be plainly obvious 50 years from now that we’re doing wrong today?**

- Much in economics is centered around the power of incentives to drive behavior, and where property rights and incentives don’t exist (as in the Soviet Union), the economy broke down.

  ○ On a deeper level, why do people fail to work without proper incentives? Why can we not work like self-sacrificing drones in a bee colony, driven internally to do the best we can regardless of the external world?

  ○ It could be that self-awareness makes us distinguish us vs the group, so that we notice differences in productivity between people. Furthermore, we’ve evolved feelings of injustice that served us well as primates to punish bad societal actors. Together, this makes us unwilling to subsidize others with our hard work - thus when we lack incentive to work harder than others, we simply don’t.

- Price is a representation of the underlying real cost, much like the map represents the territory. **Where can you find mismatches in the current price and the underlying cost?** Predicting this would allow predicting trends, as you'd expect prices to normalize to reflect cost.

  ○ eg cigarettes. The real cost was huge and the price was low, so you could predict rising prices and lower demand with time.

  ○ eg Herbalife, if the price is greater than the actual nutritional value and placebo effect.

  ○ might a similar correction be coming for things that public sentiment is turning against - sugar in diet, and Facebook?

- Where are there gaps in the real value to a person and their buying behavior? For instance, people may really rationally prefer not to eat Oreos, yet they can’t resist and buy them anyway.
If identified, could you find a way to force people to pay the higher prices they would rationally choose? For instance, someone on a diet would prefer that Oreos would cost $100 instead.

Many economic policies tend to get further reinforced, as increasingly people have a stake in the previous regime.

- Eg once zoning laws have come into effect, people who have bought higher priced units in this regime will oppose efforts to build more supply
- Eg once agriculture subsidies come in, farms will oppose removing them
- As this continues, entrenchment will only deepen. These tend to favor a few at the cost of a large mass of people.

How do you break out of this vicious cycle?

- Uber broke out of the taxicab monopoly by mobilizing mass popular support.
  Maybe you have to make the benefits at large plainly clear.

- In price controls like healthcare that cause utilization, it’s unclear what has greater utility to patients - seeing a lower quality doctor more often, or a higher quality doctor for longer less often.
  Maybe you acclimate to whatever environment you’re in and it doesn’t really matter.

- Borders seem to be economically costly. Many restrictions on trade seem bound by local fiefdoms - intercity, interstate, international - that have been grandfathered in by history.
  Could a borderless world arise? Or do we have too many grandfathered national concerns that the border paradigm won’t be broken? Or do we naturally, biologically prefer to have us vs them mentality?

- Did socialism fail because of flawed ideals, or flawed execution of those ideas due to human foibles?

- AI may transform what is economically possible.
  Central governments may use this to set prices optimally across millions of goods.
  AI-connected human brains may make mass coordination a lot easier, allowing enterprises to grow larger than ever.

- Why do profits still exist on branded cereal, whereas airlines have competed away profits to little? As Warren Buffett notes, why does one brand not simply invest heavily to take over the market at lower profits?
  Maybe there is a ceiling to demand - people want sufficient variety in cereal to prevent a huge single player in cereal.
  Contrast to airlines, where the goods are basically fungible, and branding is unnecessary (aggregators like Kayak make discovery cheap). New entrants can therefore compete profit levels down

- Beliefs about functioning markets and prices lead to some attack vectors.
  Higher priced goods signal demand - “they wouldn’t be able to survive if other people didn’t buy them, thus they’re worth it.” So you can overprice relative to actual quality, and without information transfer, you can reap extra profits.
  Belief that the market generally takes care of problems can lead to bad actors causing harm for a long period of time before correction. Information opacity contributes to this.

- People like stability of pricing, which prevents efficiencies in goods like utilities and tolls. How do you get people to be OK with surge pricing of basic utilities?
  It took time, but people got used to Uber’s surge pricing.
  Maybe you have to demonstrate savings in non-peak periods to avoid accusations of greed? Like a $10 ride to airport makes me more ok with a $30 ride to work at rush hour.
• The government once forced Kodak to sell film and film processing separately for antitrust reasons. Why do they not force Apple to sell iOS and hardware separately? Have antitrust regulators learned their lesson, or does Apple simply not control enough of the market?
• There is a statistic that differences in gender representation in fields is heightened in more egalitarian societies (e.g., there is a greater difference in genders for engineering in Norway than in Iraq).
  ○ Might this be because women in societies of greater welfare support are freer to choose by their own interests, rather than fighting to earn higher salaries?
• Given the misaligned incentives of politicians, is it possible to orient their incentives around their performance along economic growth? Pay them like CEOs along their ROI decisions.
  ○ Counter: the metrics will be controversial and game-able.
• What jobs are currently done by nonprofits that can be increasingly displaced by the private sector? We have seen this done in education and healthcare.
  ○ Religion - provides guidance through tough life situations (therapists and self-help books); moral lessons; communities (Reddit, health clubs like SoulCycle).
    § **Theory:** wealthier nations become more secular, as an efficient private sector allows displacement of religion’s roles in people’s lives.
• If nonprofits are so ineffective, why is much wealth being used for philanthropy, when as a scarce resource it might be better used elsewhere? Why is buying malaria nets a good use of money when the market doesn’t already make this happen?
  ○ Poorer people and worse-educated people can’t make perfectly rational decisions, so you have to subsidize the service to kickstart virtuous cycles. This takes on a paternalistic air, but might be worth it in the long term.
  ○ Some governments are too corrupt to allow markets to run their natural course.
  ○ To donors, the use of money to solve social problems has more value than enriching the richer further, even if that is more profitable.