

11

A theory of fragmentism

Akseli Kettula

After 100 years of market and government failure, it is time for capitalism to take a new path. In this chapter, I present a new theory of fragmentism, which is inspired by the debate on market failure and government failure. It is a new theoretical proposal that shifts the focus from the debate to avoiding the root causes of these failures. In fragmentism, the consolidation of economic power and decision-making leads to unpleasant circumstances and thus must be avoided through vast diversification. Both the private and public sectors are unable to escape these adverse effects, which could be traced back to attributes of systemic risks. These risks exist in the economy regardless. Additionally, fragmentism unleashes what Joseph Schumpeter (1942) called creative destruction and enables Adam Smith's (1776) metaphoric invisible hand to operate in the economy in an unforeseen manner. Thus, the essence of fragmentism is a better-functioning market economy along with mitigating systemic risks. Moreover, there are very concrete examples of why both markets and centrally led economies tend to fail. Thus, why not abandon both if there is an alternative way to manage a capitalistic economy?

This theoretical contribution is developed through the following steps: The chapter begins with a description of the current form of the economy and its flaws. More precisely, current globalisation, consolidation, and multinationals are analysed from the perspectives of economic efficiency, democratic decision-making and, perhaps most importantly, in the context of creative destruction (Schumpeter, 1942) and the invisible hand (Smith, 1776). Then, the chapter shifts the context from the present day to the historical debate between market and government failure while connecting the

discussion to events in the past. The aim here is to reveal that pre-fragmentistic ideas have been outlined before but have never broken through to mainstream economics.

After a historical representation, both mainstream alternatives are questioned based on empirical evidence and in relation to theories concerning the chaotic nature of capitalism. Chaos is examined from several different perspectives particularly connecting it to capitalism itself. The purpose here is to illustrate how the invisible hand, combined with the dynamics of creative destruction, could harness chaos to improve the economic wellbeing of society. Moreover, attributes of systemic risks, one of the most essential theoretical pillars behind fragmentism, are examined. After this, it is time to return to the idea of fragmentism. The chapter not only presents a new model or theoretical abstractions of arranging capitalistic economy, but it also offers some ideas about implementations in practice. Especially alternative routes for managing publicly owned organisations are examined. This section is followed by clarifications to decrease misunderstandings in the context of the new theoretical concept of fragmentism. The chapter concludes with some final thoughts, presented with an evocative touch.

Today, before, and pre-fragmentistic ideas

The first section consists of two different parts. The first part broadly describes the current form of the economy as flawed. It delineates a perspective of the current economic system, within which the ideas concerning fragmentism are easier to understand. In the second part, the historical debate between market and government failure is considered, while connecting the economic academic discussion to events in the past. The aim here is to reveal that pre-fragmentistic ideas have been outlined before but have never broken through to mainstream economics. Fragmentism is not coming out of nowhere; it has been vastly influenced by economic thinkers throughout history, and they deserve to be mentioned and connected to the great debate concerning failures themselves.

The age of multinationals and consolidation

Since Ronald Reagan and Margaret Thatcher took office at the turn of the 1970s and 1980s, (neo)classical economic policies were dominant in the West until the Great Recession of 2008. This rather long period included some earth-shaking economic and (geo)political transformations. The Soviet Union and the Eastern Bloc collapsed, the European Union expanded rapidly in addition to the, perhaps, most influential process: the globalising economy. The globalising economy is an essential piece of globalisation, which could be described as an expansion of interconnections that exceed geographical boundaries among humans on Tellus (Scholte, 2008). The period from around 1980 can be described as an era of globalisation or, more precisely, the second era of globalisation (Das, 2010). However, the timeline and the process of globalisation itself is under debate. For example, Amartya Sen (2002) sees

globalisation as a remarkably older phenomenon, a few millennia at a bare minimum. Although there are, as already mentioned, disagreements with the timeline and periods of globalisation, there is a consensus about living in a globalising era today (e.g., Dreher et al., 2008, p. 5). Thus, in this chapter, the era is defined as the current era of globalisation instead of the second era of globalisation.

In the area of current globalisation, business organisations have consolidated into larger and more powerful units, so-called multinationals. This consolidation has reached a rather extreme form. For example, only five multinationals dominated all major business segments worldwide at the turn of the millennium. Moreover, a single company had over 40 percent market share in one-third of them. (Nolan et al., 2002) Rather understandably, such an accumulation of markets raises discussions concerning the functionality of markets. For example, Crouch (2011) argues against competitive markets and claims that market forces have been hijacked by multinationals, and thus free markets have failed while historically they helped the growth of these organisations. Along with these shifts in the power over the economy, this development has led to situations where systemic risks (presented in section 2.2. below) posed by these entities have increased. Nowadays, there are global giants that could cause an economic disaster in the case of rather long business interruptions—not to mention impairments or bankruptcies. For example, if the operations of Microsoft, Alphabet, or Pfizer pauses, the consequences could be catastrophic.

The development of consolidation has been associated with increased problems of systemic risks. For example, Mühlnickel & Weiß (2015) have made interesting findings from the perspective of financial markets. They discovered a remarkable positive relation between two attributes: consolidations and these risks. Especially non-traditional financial functions, a large portfolio of different insurance segments, and the size of the firm were found to correlate with increased systemic risks (Mühlnickel & Weiß, 2015). In addition to systemic risks, consolidation is sometimes harmful also to others—for consumers and other customers. For example, consolidation development has led to rising insurance costs in the United States (Dafny et al., 2012, pp. 1183–1185).

Furthermore, consolidation concentrates global economic power to even more powerful corporations (e.g., Wu, 2018), and thus to their owners and decision-makers, a small number of influential individuals (e.g., Phillips, 2018). This development makes economic decision-making more undemocratic (e.g., Wilks, 2013). Single international business stars, such as Elon Musk, Warren Buffett, Bill Gates, Mark Zuckerberg, and Jeff Bezos, have become richer and richer (Peterson-Withorn, 2024). Hence, they have enough resources to transform entire industries, such as private motoring and social platforms, in our daily lives. It is rather unheard-of that individuals are competing against each other with space programmes, for instance. Furthermore, projects such as Neuralink and metaverse experiments emphasise the significant power of private businessmen. Even the wealthiest nations might struggle to find finance for such projects while battling against increasing public debt regardless of the will of politicians.

Old classics, such as *Das Kapital* (Marx, 1867), seem to be relevant again. Accumulative asset clusters push the petty bourgeoisie and other smaller owners into the margins. Along with increasing power of multinationals, these power-figures are extreme examples of modern accumulation of capital after the 1970s, which is continuing still after the 2007–2008 financial crisis (e.g., Piketty, 2013; Brancaccio et al., 2018), and the current form of the iron law of oligarchy (Michels, 1911). If undemocratic economic decision-making, the accumulation of capital, and the concentration of power inside organisations are not viewed as problematic, the vast increase of systemic risks among single individuals should at least be concerning. If any of these business stars choose the wrong path for the rest of us, unintentionally or not, the whole society could suffer serious consequences.

Pre-fragmentistic ideas and historical economic selections

Even though concerns about consolidation development have increased in rather recent times, they are not especially new. Relatively recently, Crouch (2011) declared global giants as anti-market actors. However, much earlier, right after the Great Depression of 1929, Henry Calvert Simons (1934), a member of the “Old School of Chicago,” wrote an academic essay where he describes giant monopolies, along with other similar organisations, as not only the great enemy of the economy but also “the great enemy of democracy” (Simons, 1934, p. 4). In the essay where he also discusses other themes, such as critique against tariff regulations and practised monetary policies, Simons targets monopolies heavily on several occasions. Monopolies are argued to manipulate prices and incomes, which makes them harmful for society. Power imbalances are seen as a fault of gigantic entities. The very first element of Simons’ liberal-sounding programme is the “elimination of private monopoly in all its forms” (p. 17). Rather obviously, acquisitions of monopolistic corporations should be prohibited as well (p. 19). He even manifests that too influential groups, monopolies included, oppress and undermine the economy as competition disappears (p. 4). This sounds rather familiar in the context of this chapter. Today, we face the same problems with economic consolidation, and fragmentism gains its inspiration from them.

However, Simons’ views did not have much influence on mainstream economic practices. More precisely, the economic theory that gained traction in the early 20th century was Keynesianism, and the role of central governments was increased. However, the transformation was rather slow. For example, as Renshaw (1999, pp. 342–343) describes, New Deal policies did not increase public deficits in the US remarkably until the Second World War, although public sector spending began to diminish unemployment rates in 1934. However, it was rather impossible to be Keynesian before his *The General Theory of Employment, Interest, and Money* (1936) was published. In Europe, the transition was even slower. Moreover, Keynesian economic policies spread country by country: at first to the United Kingdom, Scandinavia, the Netherlands, and France, followed by others such as Italy and Belgium during the 1950s and 1960s (Maes, 2008). Even though Western societies restricted the role of unregulated markets, large corporations remained large. Thus, the core of Simons’ message was ignored.

Later, the existence of large companies—more precisely financial institutions—was criticised by Hyman Minsky. He proposed that private banks should remain small and independent. Furthermore, Minsky argued that other private corporations would not remain large without access to larger financial institutions. Large corporations need larger external funding possibilities. (Minsky, 1986, p. 355)

As mentioned above, the economic mainstream shifted towards an increased role of central governments prompted by the Great Depression. Remarkable public sector driven economic programmes were planned and implemented, such as the New Deal before the Second World War. Internationally, Marshall Aid was launched right after the global devastation. As a clarification, big governments were dominant both in the capitalist world and in authoritarian regimes. The era ended with the Oil Crisis, stagflation, and most importantly, the crisis of the strong presence of the public sector, especially in the United States and the United Kingdom. The *laissez-faire* orientated economic school, the Economic School of Chicago, played an impactful role in the transition and critique against existing economic policies, probably most famously in the context of monetary policy (Reichart & Slifi, 2016; De Long, 2004, p. 84) and antitrust policies in the United States (Bradford, et al., 2020; McKenna 2023). Issues with the inefficiency and negative aspects of policies that restricted market forces empowered ideas related to unregulated market forces. As an illustration, Milton Friedman, one of the 20th century's most prominent defenders of free markets, refers more than a few times to Adam Smith, the inventor of liberal economics and the term invisible hand (Smith, 1776), and calls for a return to the idea of *laissez-faire*, to allow markets to be free, in the same context. (e.g., Friedman & Friedman, 1979; Friedman, 1976)

Like their predecessors, Friedman and others neglected to pay attention to the counterforce of the invisible hand, Chandler's (1978) visible hand. Chandler's seminal observation revealed the great shift from small independent companies to large enterprises with several functions and the increasing power of their managers in the United States already during the 19th century. It is debatable whether free markets are free in an environment where the visible hand rules. Unfortunately, the roles of large corporations in the economy were ignored by Friedman and others, again. Ironically, the very same critique by Simons and Minsky was valid despite the drastic change in Western economies since large were allowed to remain large. Policies before the Great Depression failed in limiting power and adverse effects of large organisations as well as policies before the Oil Crisis. Again, the public debate of economics revolved around the question of which one fails less, the government or the market (e.g., Datta-Chaudhuri, 1990; Keech, et al., 2012; Zerby & McCurdy, 1999). In this discussion, the focus is not on the size of organisations. Hence, the debate tends to be rather useless and even slightly counterproductive. Fractioning the public or the private sector is not represented as an option for *laissez-faire* and Keynesian economics and has been abandoned to the shadows.

Far more dramatic examples of the failures of central planning appeared in the communist world. Mao's Great Leap Forward and the four-year Red Khmer regime

in Cambodia were economic and social disasters, as well as the 1930s Kazakh famine *Asharshylyk* (e.g., Grantseva Ageeva, 2023) in the Soviet Union, approximately concurrent with *Holodomor*, the starvation of Ukrainians due to Soviet policies. The status of the *Holodomor* as a genocide of Ukrainians is under scholarly debate (e.g., Andriewsky, 2015). In addition to offering empirical evidence of the failures of communist experiments, they share a unifying factor with capitalistic economies in the 1970s. In the Oil Crisis, centralised publicly driven decision-making failed to handle stagflation at that time. Fortunately, the consequences of this misjudgement were much less severe than in the other above-mentioned cases. These other cases are illustrations of how consolidated economic decision-making could lead to remarkable catastrophes if economic analysis turned out to be inaccurate or purely false. It must be concluded that arranging the economy should not be in the hands of a few individuals or a single governing body. Furthermore, a constantly continuing discussion about how to organise economics is a necessity to avoid such tragedies.

The everlasting debate

The debate between market failure and government failure has existed for nearly a century, and there is still no winner in terms of which one fails less. In this section, I argue that both fail, and the root causes are, in fact, the same. Moreover, the section examines these causes, systemic risks, and their essence. After examining systemic risks and especially their attributes, the section flows to the areas of complexity and uncertainty. Complexity and uncertainty are viewed as an inevitable part of modern human society. Thus, they must be managed as carefully as possible. Management happens by utilising market forces and creative destruction as widely as possible—but within the scope of good chaos. Due to the key role of good chaos, the definition of good and bad chaos is presented. This section's perspectives and theoretical approaches to society overall are crucial in understanding fragmentism and why this new theoretical proposal is needed to replace the great debate.

Market failure or government failure, or both

As described above, the debate between market failure and government failure has been present in economics literature for decades (e.g., Datta-Chaudhuri, 1990). The debate has heated up again after the Great Recession in 2008 and especially the critics of unrestricted globalised markets have become more active and paid more attention to it (e.g., Stiglitz, 2009). However, as described above, both unrestricted markets and heavily centralised economies tend to fail. Given this, the intention of scholarly discussions and analyses should be to avoid failure, not to debate about which one fails less.

When the focus is turned to Simons' and Minsky's perspectives on large corporations and other dominant entities, the view changes vastly. From time to time, bankruptcies and impairments of large companies, even industries, happen. Moreover, from time

to time, bailouts have been in the toolbox of economic policies, despite whichever economic school rules in the Western world. To give examples of this, the American military corporation Lockheed Martin was bailed out in 1971, during a time of Keynesian hegemony, and the German energy giant Uniper was also bailed out in 2022, during the current age of globalisation, after suffering drastically reduced gas exports due to the Russo-Ukrainian war. Bailouts, and ending up in situations where decisions to bail out or not to bail out, are unpleasant and costly in any circumstance (e.g., Sjostrom, 2009). Bailouts are always debatable, but sometimes they seem to be against the common good and not justified whatsoever (e.g., Eidenmueller & Valbuena, 2023). Furthermore, it could be rightfully asked whether bailouts are an ineffective use of resources or not. Since bailouts have become a common practice throughout contemporary Western economic history, they increase moral hazard issues. If profits are privatised and losses socialised, the incentive to limit risks is reduced. Moreover, bailouts are restricting one of the greatest forces of capitalism, Joseph Schumpeter's (1942, pp. 81–86) idea of creative destruction.

Besides purely economic problems, large economic entities face issues in the context of social sustainability and democratic decision-making. In these organisations, like in every other entity where large number of stakeholders do not have access, the economic power is in the hands of a few individuals. This is not a problem if the organisation is not so influential that it impacts a remarkable business segment or the economy overall. However, when this is the case, diversified decision-making disappears. This issue applies regardless of the economic sector, from local retail stores to global consulting.

Moreover, along with moral hazard problems and more generic issues with democratic decision-making, challenges with transparency also occur. Especially nowadays, the decision-making of limited liability companies can be hidden rather effectively, no matter whether the corporation is owned publicly or privately. The current form of the limited liability company still exists and, hence, its issues (Tricker, 2011). Thus, forcing corporations under public ownership does not solve the problem. To give an example, because of drastically failed decisions with questionable securities, the publicly owned Finnish aviation company Finavia suffered losses of 34 million euros (Pietiläinen, 2015). The incident was not given public attention before a pilot, Horst Weckström, filed an investigation request to the Police of Finland (Loponen, 2015; Lehtonen, 2016)

Currently, these issues with the feeling of a lack of control over economic power can translate into politics. For example, the Brexit slogan “Take back control” captures the idea that people feel they do not have it (anymore). The construct of sovereign decision-making carried the popularity of leaving the EU years after the Brexit Referendum (Menon & Wager, 2020, p. 279), and probably still does for those who would still vote to leave the EU. The most frequently mentioned premise to vote for Brexit was “the principle that decisions about the UK should be made in the UK” in surveys right after the Brexit Referendum (Ashcroft, 2016; Richards & Heath, 2018), not in Brussels.

Attributes of systemic risks and their impact

Market and government failure have something critical in common: the root causes of both failures are the same. Failures come from the inability to avoid attributes of systemic risks. Thus, the consequences of failure among certain organisations are too severe. Someone might ask: what are these attributes? Cummins and Weiss (2014, p. 493) have introduced three attributes of systemic risk to academic literature. Originally, these were conceptualised by the Financial Stability Board (2009, p. 9), approximately at the time of the Financial Crisis, which started in December 2007. These attributes are size, interconnectedness, and lack of substitutability. Size is a rather straightforward term that is easily understood. However, interconnectedness and lack of substitutability need to be defined in a more comprehensive manner to avoid misunderstandings. The term interconnectedness describes a situation where the struggling organisation drags other significant organisations or even industries down due to its critical ties with them. For example, financial institutions could be connected in such a manner. It is not about the organisation itself, but instead about dependent entities. If there are no ways to find a replacement for the organisation, it has an attribute which is defined as the lack of substitutability. Usually, organisations managing critical infrastructure have this attribute. For example, power grids could be irreplaceable (e.g., Fairley, 2024).

These three attributes are designed for financial markets. Naturally so since the discussion around industries' risks has traditionally included booms and busts. For example, and perhaps most famously, the idea of the structurally unstable cyclic nature of financial markets has been developed by Hyman Minsky (1980). However, it is reasonable to assume that these are also relevant to other areas of society. If comparing the current era of globalisation to the attributes of systemic risks, it becomes rather obvious that organisations with such attributes exist outside financial markets. Moreover, their impact on the world is indeed not diminishing. On the contrary, global giants such as the aforementioned Microsoft, Alphabet, and Pfizer are even larger, interconnected, and possibly even irreplaceable—at least rapidly, if something bad happens.

Complexity and uncertainty—advantages of market economy

Whether living in a capitalistic economic system or not, humankind must face challenges posed by complexity and uncertainty. In the context of this section, Nassim Nicholas Taleb's (2007, pp. 26–37) concepts of Extremistan and Mediocristan prove helpful. A brief simplified illustration is in order. People previously lived in smaller communities, slowly changing environments with more significant geographical and physical restrictions—hence in Mediocristan. Today, the global world with its turbulent shifts and exponential scalability in critical areas from the economy to scientific citations illustrates the turn towards Extremistan. In our society, uncertainty is faced more widely compared to measurable risk. According to Knight, risk is measurable and thus probabilities of outcomes could be accurately measured, unlike

in uncertainty where the lack of information prevents such evaluation (Knight, 1921). To make Taleb's concepts more convincing, empirical observations of even the long-term economy and stock market (e.g. Mandelbrot & Hudson, 2004; Day, 1982) show significant turbulence and irregularities. Mediocristan is absent in these empirical datasets, while Extremistan dominates. These effects are applied—regardless of economic periods, ruling economic schools, and forms of arranging society. Moreover, recent crises, such as the COVID-19 pandemic, demonstrate rather well whether we live in Mediocristan or not.

Even though market failure and government failure exist in Western societies, capitalist systems have a significant advantage over the world of Extremistan, complexity, and uncertainty—and this advantage is market forces. Market forces are dynamic and flexible, and they react rapidly to the changing environment. Furthermore, market forces, when applied properly, diversify decision-making and prevent the adverse accumulation of single wrong decisions. If a few individuals choose inaccurate actions, the whole society does not suffer. Furthermore, the most powerful individuals and organisations have resources to impact collective reallocation over the less powerful after the turmoil. In the context of organising economies, the intention should be to diminish their influence after a crisis, not to foster it.

Consumer markets and business-to-business trade do not require capitalism explicitly. However, capitalism extends market forces to organisations effectively and unleashes Schumpeter's creative destruction. According to Schumpeter (1942, p. 82), creative destruction is a process that "revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one" and this process "is what capitalism consists in and what every capitalist concern has got to live in." Collective ownership structures have a remarkable problem. They vastly restrict the renewability of organisations, since there is only a little on no competition (e.g., Clark & Wildavsky, 1990). This renewability is essential in the world of Extremistan. It should be possible to establish new organisations without severe restrictions and, perhaps more importantly, to discontinue them without almost any limitations. Unfortunately, the current form of capitalism has failed this principle and approved practices in which discontinuation is sometimes almost impossible, and bailouts happen. Thus, creative destruction is not unleashed in a proper manner.

Interestingly, by combining insights from great, but drastically different, economic thinkers such as Keynes, Schumpeter, and Marx, it is possible to draw a conclusion about the structural instability of capitalism. In Keynesian thinking, instability appears in stochastic and cyclical models. Incremental deviance from the economic equilibrium is the basis of Schumpeterian instability. Marxian instability appears in long-term developments such as the accumulation of capital. (Vercelli, 1985) Structural instability can be harmful in a stable and forecastable environment. However, instability is not a weakness if the environment is unstable and hardly predictable, like today's society seems to be. In fact, structural instability could be used as a tool to survive in a chaotic environment. In this section, chaos is divided into good chaos

and bad chaos. Characteristics of these different types of chaos are illustrated below (Figure 1).

Good chaos and bad chaos

Good chaos

Enables all failures

- Creative destruction is unleashed

Disables uncontrollable growth

- Systemically risky organisations and asset accumulations are prevented

Benefits from asset bubbles

- Small enough to stimulate growth

Uses unstable nature as an advantage

- Intrinsically matches with capitalism

Bad chaos

Disables failures of significant organisations

- Creative destruction is drastically limited

Enables uncontrollable growth

- Society becomes vulnerable for systemic risks in the context of organisations and capital

Drastically suffers from asset bubbles

- Large crashes are harmful for the economy

At the mercy of unstable nature of capitalism

- Is contradictory for the capitalism itself

Figure 1. Good chaos vs. bad chaos

Usually, and also in this chapter, chaos has been viewed as a negative abstraction that should be feared. However, chaos is a creative force and sometimes leads to progression, prosperity, and development. Good chaos exists, and exploiting it is as important as avoiding undesirable outcomes. For example, the fourth industrial revolution, characterised by a rapid advancement in technology, has had undeniably positive outcomes, regardless of its somewhat chaotic nature. Moreover, it seems that small asset bubbles even stimulate economic growth, while large ones obviously do not (Hirano et al., 2014). The gist of the problem is how to limit the cons of chaos while utilising it with Smith's (1776) invisible hand and Schumpeter's (1942) creative destruction, all while tackling the attributes of systemic risk. In other words, how could societies gain the benefits of chaos by limiting bad storms and cycles to ones in water glasses?

Hyman Minsky's (1986) proposal about limiting corporations to small and medium enterprises while maintaining big government seems like an attractive path to pursue while trying to find a solution. Limiting the size of corporations does increase the workability of both creative destruction and the invisible hand. However, it does not solve the problem of government failure. Thus, Minsky is still lacking the answer to how to avoid failures completely. Is this a dead end? Or is there a way to bypass the problem while limiting chaos and gaining from it?

Fragmentism

The theory of fragmentism, which I develop in this section, is a route to escape the debate between market failure and government failure. It extends Minsky's ideas concerning corporations to the public sector. In fragmentism, the central government has two main economic principles: to maintain both itself and the markets diversified. From the perspective of the public sector, the central government should allocate a great number of economic resources to regional decision-makers and municipalities. Furthermore, the regulation of the central government should give significant freedom to smaller units to use money and provide public services.

Since the power of single private and public organisations has been confined by diversification, the undesired consequences of failures have abated. If failures do not cause such significant risks for society, they could be allowed. Thus, the great force, creative destruction, is unleashed in a much wider manner than before. When creative destruction is unleashed, the moral hazard issues of bailouts diminish. Losses cannot be socialised since society does not suffer remarkably from the impairments of a single organisation. Hence, the management of organisations cannot take excessive risks while chasing profits. Some organisations, such as healthcare services, exist in an environment where failures could have serious and inhumane consequences. To avoid these adverse situations and to enable creative destruction as widely as possible, a shared responsibility through regulation should be adopted. The Finnish employer's pension insurance system is a great example of how to implement shared responsibility without restricting creative destruction. If an insurance company collapses, others are required to carry policyholders' insurance covers (Finnish Government, 2021).

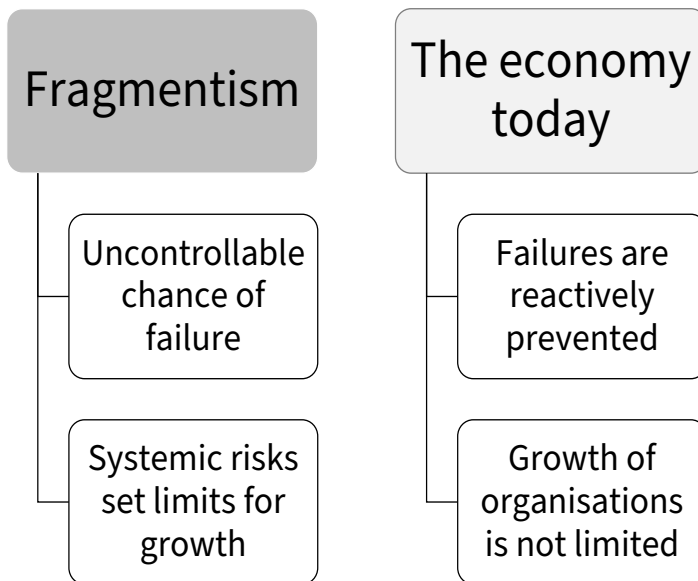


Figure 2. Fragmentism, growth, and failure

Fragmentism, then, turns the current relationship between success and failure upside down (figure 2). It enables the uncontrollable failure of organisations since the adverse effects of the failures are reduced. On the other hand, a key element of fragmentism is the ability to intercept situations where an organisation prospers in an uncontrollable manner. Fragmentism, following three attributes of systemic risks, limits organisations' growth and interconnections, and, if possible, prevents evolutions where organisations become irreplaceable. Hence, if an organisation fails, let it fail; if an organisation prospers, let it prosper—but in a controlled manner. Today, especially due to the remarkable scalability of digital technologies, giant organisations can become uncontrollable in relation to the rest of society. The tail is wagging the dog. In today's economy, organisations do not prosper under control. This leads to circumstances where bailouts might be the only realistic option. There are attempts, nowadays, to avoid these situations by increasing the amount of regulation and supervision. However, this does not reach the root causes like fragmentism does. Furthermore, a heavier burden of regulation and supervision leads to an increasing amount of entry costs (e.g., Gutiérrez & Philippon 2019; Djankov et al., 2002). Thus, they are harmful to the Smithian invisible hand. Moreover, rhetorically, it is possible to ask whether the global giants have more potential to influence regulation than other entities. Unfortunately, the current form of the economic system strengthens the power of huge corporations at the cost of two great forces, those outlined by Schumpeter and Smith.

As to regulation and regulators, fragmentism requires less than the current economy. As described above, the current society must heavily limit markets. While root causes are not recognised and dealt with through proper practices, avoiding bailouts and other negative effects of systemically risky organisations is unsuccessful. Good chaos, creative destruction, and the invisible hand do not explicitly need regulation. In fact, good chaos requires an almost limitless possibility of failure, not more rules. Bad chaos, i.e. systemically risky situations, does need rules. Thus, the core of fragmentistic regulation is prevention: restricting the uncontrollable growth of organisations and their path towards circumstances where they become too interconnected or irreplaceable. If mitigating systemic risks by restricting corporations and public sector entities is executed as carefully as possible, chaos could be used as an advantage. As fragmentism necessarily needs to be implemented against the background of the current society, reactive regulatory mechanisms must be adopted. More precisely, systemically risky companies should be split into smaller entities before fragmentism can be executed successfully. Otherwise, already existing giants remain as they were and invalidate the purpose and logic behind fragmentism.

When markets are more fragmented, there is more supply and demand. Hence, market forces work better overall compared to consolidated markets. Furthermore, like in the context of failure and creative destruction, less regulation is needed. Customers and providers have an opportunity to switch if they are not satisfied with partnerships. Thus, under these conditions, Smith's invisible hand is unleashed in an unforeseen manner. When there is no dependency on certain actors, these actors

are unable to exploit their power. Besides restricting the possibility of exploitation, the adverse effect of asymmetric information is also reduced. More rivals and more alternative routes for gathering information can be found. Thus, using asymmetric information for better economic outcomes becomes riskier compared to a situation where there are only a few competitors. Moreover, influential lobbying for public sector decisions becomes significantly harder from the perspective of single entities. There are just more channels to receive adequate knowledge, and thus the power imbalances among producers of information are diminished.

The public sector is not immune to systemic risks and, as illustrated above, even catastrophic decision-making. Hence, if fragmentism is applied in its most complete form, the public sector also needs to be subordinated to the same practices as the private economy. Most straightforwardly, fragmentism is applicable to publicly owned limited liability companies. If the costs of their struggles become too severe, they may also be fractioned into smaller units, if possible. This does not necessarily require the privatisation of these services. Publicly owned organisations are able to compete against each other if circumstances are set properly. Thus, founding more limited liability companies for the public sector in general could be a relevant scenario for implementing fragmentism.

In addition to limited liability companies, keeping the public sector diversified could be done by allocating great amounts of power from larger units to smaller units. In general, this means directing resources from the central government to municipalities and regional governments. Sometimes, sufficient diversification is not achievable without the existing structures of the public sector. In this case, new administrative units are an alternative to consider. If there are simply no sensible options for splitting power organisationally, obligatory and wide stakeholder engagement could be used. Even direct democracy could be applied in the context of the principles of fragmentism.

Through decentralisation, fragmentism can also decrease corruption. However, the relationship between a decentralised economy and corruption is far from linear. On the contrary, if a country struggles with high corruption rates, decentralising public services can lead to even worse outcomes (Freille et al., 2007a). Perhaps the best-known and most influential example is India and its diversification processes (Widmalm, 2008, pp. 55–111). When applying diversification procedures, unitarism has been empirically proven to be extremely useful in the context of decreasing corruption. Moreover, electoral reforms should be halted during the implementation of diversification. Other structural changes do not have the same effect. (Freille et al., 2007b) Regardless of decentralised or centralised decision-making practices, unitarism, or constitutional centralisation, reduces corruption (Gerring & Thacker, 2004). In conclusion, a fully adopted fragmentism requires unitarism, at least to some extent.

Fragmentism resembles the subsidiarity principle but is just extended even further. The principle, according to Føllesdal (1998), “regulates authority within a political order, directing that powers or tasks should rest with the lower-level sub-units of

that order unless allocating them to a higher-level central unit would ensure higher comparative efficiency or effectiveness in achieving them.” Moreover, it could be interpreted to be included in the United States Bill of Rights as the 10th Amendment (United States Creator, 1789) and is one of the General Principles of the European Union (European Union, 2016, p. 18). Thus, fragmentism helps societies follow one of their own fundamentals in the Western world.

Including active and rather complete public sector decentralisation, fragmentism disperses economic decision-making in the private sector as well. The private sector economy affects society significantly. Thus, enabling more people to get involved in it limits the potential for errors by powerful individuals. Powerful individuals are not that powerful anymore, meaning that they can only mislead smaller organisations to dust, even if their mistakes are drastic. Because the very same diversified form of economy is applied in the public sector, the impact of prominent figures in the public sector vastly reduces, too. Most importantly, in fragmentism, their mistakes do not collapse the economy as a whole. In this system, economic failure can only happen if a remarkable share of decision-makers, whose numbers are increased and extended in the new areas, make severe errors.

If it were completely inevitable that all organisations end up being led by a few, as Michels’ (1911) iron law of oligarchy suggests, at least power-figures would rule unsystemically risky organisations. More power-figures leading smaller organisations is a more pleasant outcome than fewer power-figures leading larger ones. Even though this iron law is generally supported by empirical evidence (e.g., Rucht, 1999), it is not seen as “a cascade effect.” As Diefenbach (2019) illustrates, there are options to manage the *iron threat of oligarchy*, as he calls it, highlighting the constant presence of the threat and emphasising the importance of active and systematic procedures in various forms as counteractions. Because fragmentism diminishes the impact of the law, it could be seen as another tool to respond to the phenomenon.

The broader vision of diversification is rather simple. However, the principle itself does not yet answer the question of practice. How is diversification executed in fragmentism? What are the criteria that regulators should apply behind the process? To keep the markets diversified, regulators should focus on three attributes causing systemic risks: size, interconnectedness, and lack of substitutability. To diminish the systemic risk of size, officials should limit market shares aggressively whenever possible. Competition regulators already exist. Thus, the kinds of public processes required by fragmentism already exist in some form. If envisioned further, similar public officials could be hired to supervise interconnectedness and the threat of irreplaceability. Furthermore, wide interconnectedness as well as a lack of substitutes should be prevented on a large scale through regulation. There are already tools for monitoring interdependence. They are mostly made for financial markets (e.g., Fry-McKibbin et al., 2018), but there are no obstacles to developing them into a form that is more universally applicable.

The third criterion, lack of substitutes, is intuitively the hardest one to control. In some cases, alternative systems could be built. Secondary roads and powerplants could

be used as an example, as well as building a natural gas or biogas network to replace fossil fuels in cars with combustion engines. However, sometimes the attributes of an irreplaceable entity set remarkable challenges for building substitutive systems. They could be simply impossible or too expensive in the context of rational decision-making. For example, constructing a whole new water supply network as a backup appears nearly impossible to execute. Furthermore, some public sector functions, such as the judiciary, can be viewed as irreplaceable. In fragmentism, these exceptions are governed broadly through vast shareholder engagement inspired by the principle of subsidiarity. If, somehow, an industry cannot avoid systemically risky structures to function well, relevant stakeholders, not only shareholders, should be able to widely influence decision-making in private and public organisations. Figure 3 summarises the possible procedures for systemic risk management in practice.

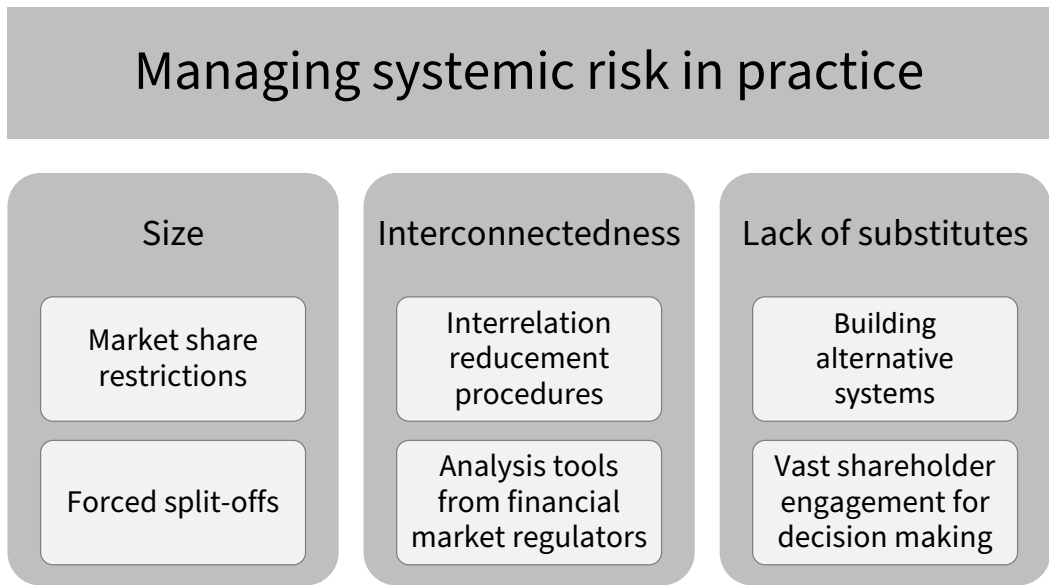


Figure 3. Proposed procedures for managing systemic risks

When observing the lack of resilience in the context of preparing for natural, industrial, or terrorist disasters, Perrow (2007) criticises consolidation development (e.g., pp. 211–247). However, he also offers solutions, and his ideas could be simplified and summarised with the sentence on the very first page: “[W]e should reduce the size of vulnerable targets” (p. 1). For all attributes of systemic risks, a network of small companies introduced by Perrow, could be a fascinating and relevant alternative. The network consists of, obviously, a remarkable number of small firms, but in more detail, it consists of a hub of producers, some distributors, and a vast number of independent suppliers. Most importantly, the solution emphasises restricting interdependencies between organisations. (Perrow, 2007, pp. 302–304) The proposed alternative, while making the economy more resilient to disasters, diminishes attributes of systemic

risks at the same time. If companies are small enough, failure is a completely possible outcome. If they are not interconnected with each other, a couple of them cannot drag the whole network down. If the network is well-planned, the risks of a lack of substitutes could also be reduced. Moreover, there is no reason why the concept of the network cannot be extended to the public sector.

Along with being an interesting idea in the context of fragmentism, empirical evidence shows that networks of small firms have been successful in economic development (e.g., Piore & Sabel, 1984). However, this is not a huge surprise in the context of fragmentism. In fragmentism, good chaos, or storms in water glasses, can foster economic wellbeing. Moreover, naturally limiting bad chaos diminishes the harmful side effects of capitalism. Given this, it is rather surprising that these networks have not gained more public attention. When practising fragmentism, they would be a cornerstone of the economy wherever and whenever they could be feasibly structured.

Even though rules and practices of fragmentism are applied, as suggested above, to public and private sectors, there is a threat of remaining systemic risky structures. If a single person, family, investment fund, or any entity has a systemically risky power to influence the economy through ownership, the advantages of fragmentism diminish. Fortunately, financial markets, such as real estates and natural resources, along with other capital-intensive markets, are markets despite their cumulative nature. Hence, the very same procedures presented in figure 3 above are in the toolbox. If a single owner has a share of ownership, which is found to be systemically risky in the context of a certain industry or the economy overall, regulators set obligatory requirements to reduce the amount of shares in a certain period. If a single owner seems to be at the centre of too interconnected financial instruments, such as subprime loans, these instruments are dismantled reasonably. If an owner's capital seems to be irreplaceable for certain industry, alternative capital systems should be put in place, or vast shareholder engagement must be applied.

Overall, financial markets are quick to adjust, and buyers appear when the price is attractive. Due to abolishing systemically risky accumulation of capital, prices drop, since the supply of capital is decreased. Thus, smaller investors and a larger number of individuals have access to the shares, which they previously did not. There is less capital in competing these assets, since systemically risky owners cannot buy and hold them anymore. Marx (1848) himself saw a conflict between capitalists; as the result of the accumulation of capital, more and more smaller capitalists drop to the proletariat inexorably. Incidentally, fragmentism mildly reverses this development and sets limits to the accumulation. Capital cannot be accumulated at the costs of attributes of systemic risks. Thus, these attributes constitute a ceiling that cannot be exceeded. As an annotation, if the ownership structure is too complicated and the owner cannot be identified, regulators should see it automatically as dangerous in the context of systemic risks and treat it accordingly.

If Vercelli's (1985) three elements of structural instability and three attributes of systemic risks are combined according to fragmentism, the conclusion is rather surprising. Using the attributes, all three elements can be detained in the world of good

chaos (figure 1). Keynesian stochastic instability is used as an advantage in the form of small asset bubbles. Large bubbles are severely less likely due to vast mitigation of systemic risks. The accumulation of capital is restricted with the attributes of systemic risks—like the adverse effects of creative destruction. The attributes give freedom to these instabilities to do whatever they do—but in water glasses. Individuals, owners, and organisations have the freedom to fail.

For avoiding misunderstandings and some final thoughts

Since fragmentism is a proposal for a new theoretical framework, some clarifications need to be expressed for the sake of avoiding misunderstandings. First, proper diversification requires disconnection from interdependence within industries. Since business segments, such as financial markets, can cause economic turmoil on their own, properly adhering to fragmentism requires practices that prevent society from falling into the interdependency trap.

Second, the fragmentation of the capitalistic world has a slightly more complicated relationship to fragmentism than would be expected at first sight. Fragmentation, which was represented in a framework by Jones and Kierzkowski (1990), means splitting different processes of production into smaller parts, fragments. Thus, it makes supply chains and production more sophisticated and interconnected with certain locations and societies. In fragmentism, fragmentation itself is neither desired nor undesired if it does not lead to circumstances where systemically risky structures are formed. As mentioned above, interconnectedness is one of the key elements of systemic risks. Thus, if there are several alternative suppliers to potentially replace every link in the supply chain, fragmentation is not a problem in and of itself. On the other hand, fragmentation might prove useful in the context of fragmentism, since the concentration of manufacturing processes on a single producer is not an ideal outcome, to say the least.

Some Marxist thinkers, such as Ralph Miliband and David Harvey, have also taken part in the discussion about fragmentation. David Harvey (2001) sees fragmentation as a natural characteristic of capitalism and extends it throughout capitalistic societies due to the accumulation of capital as well as forced and continuous profit seeking. Miliband (1969, 265) argues that fragmentation of economic power is an inaccurate statement and that consolidation of power exists. As a clarification, Harvey does not deny this hypothesis. From the perspective of fragmentism, systemically risky organisations and too powerful individuals are harmful. Thus, if the accumulation of capital leads to their presence, it is undesirable. However, fragmentism does not argue where fragmentation in its various forms exists and where it does not. The focus is on Vercelli's (1985) three elements of instability, not on fragmentation.

Third, it is also crucial to understand that, in fragmentism, the overall proportional size of the public sector is not the most relevant issue. Therefore, fragmentism can be applied by economic liberals as well as by those with leftist orientations. These

traditional political perspectives could both find arguments that support a transition towards fragmentism. For economic liberals, fragmentism enables an economy where there is less regulation and intervention. Fragmentism does not imply more regulation, just better regulation. As Simons (1934, p. 3) argues, “[T]he existence (and preservation) of a competitive situation in private industry makes possible a minimizing of the responsibilities of the sovereign state.” The vision is to unleash market forces, not to restrict them. Moreover, fragmentism distributes public sector decision-making to smaller units. Hence, in it, there is no one large, centralised government that could disturb the private economy.

For leftist political actors, fragmentism could appear as a solution against the increased power of multinationals. Furthermore, powerful businessmen would be less powerful in fragmentism. Conversely, other people would have more influence in the private sector economy. For example, Ward and Guglielmo’s (2021) concept of pop-socialism could apply fragmentism as a tool to activate people through the involvement of private sector decision-making. Proposed procedures for managing systemic risks (figure 3) can be used as a guideline for implementing the involvement soundly—in the context of irreplaceability at least. Moreover, fragmentism offers the left a path to maintain the globalised world while restricting some of its unpleasant consequences, such as the dominance of corporations. There is no need to reverse globalisation if it can be fixed properly.

Extending fragmentistic regulation to capital markets (figure 3) creates an attractive option for the problem of highly concentrated capital. Specific criteria concerning systemically risky ownership are not set in fragmentism. Hence, it is completely possible to limit accumulation, even rather heavily if it is rationalised according to the three attributes of systemic risks. Fragmentism offers tools for the left to pose a challenge to whether traditional conservative economic policies support global corporatism rather than economic freedom. Significant accumulation of wealth and capital has the potential to lead to systemically risky structures and thus hinder the work of creative destruction and the invisible hand.

Fourth, fragmentism recognises the great force of creative destruction as initially theorised by Schumpeter. Therefore, fragmentism is not market socialism. Rather, it is a new theoretically structured form of capitalism. Technically, the form of ownership is irrelevant in fragmentism. It permits private and public ownership. The ownership structure must just allow for the failure of organisations. Consequently, not all global giants are contractionary from the perspective of fragmentism. For example, globally, the automotive industry is very competitive and rather immune to systemic risks. Obviously, territorial issues exist, and they should be dealt with according to the regulative principles of fragmentism. Fragmentism does not dismiss economies of scale and their benefits (e.g., Robinson, 1958, pp. 26–27; McGee, 2014; Caves & Christensen, 1988). Only when the principle of economies of scale conflicts with attributes of systemic risks should fragmentistic regulation be adopted.

Fifth, fragmentism is not ordoliberalism either. Fragmentism is a response to Vercelli’s (1985) structural instability by using three attributes of systemic risks

(Financial Stability Board, 2009) as a tool. Furthermore, in fragmentism, the public sector must keep itself diversified. A decentralised state is not necessarily strong. On the contrary, the strong state is seen as an essential part of well-functioning society in ordoliberalism; it must be protected from others, for example, private equity and advocacy groups (Hien, 2013, p. 351). Otherwise, it is “at the mercy of market forces” (Bonefeld 2012, 634) and other threats such as labour unions. In preventing market-dominating positions (Lenel, 1976) and the wide role of the competition authority (Krieger & Nientendt, 2023), ordoliberalism has undoubtedly similarities compared to fragmentism. However, the attributes of systemic risks, especially interconnectedness and irreplaceability, can exist without market domination. Thus, fragmentism extends the power of regulators to such sectors where ordoliberalistic views do not reach.

Sixth, fragmentism does not explicitly mean radical reforms in the context of globalisation. The interesting point in the current era of globalisation is that only a few multinationals have truly expanded globally. Right after the Great Recession of 2008, Rugman and Verbeke (2009) wrote in *The Oxford Handbook of International Business* that even among the top 500 companies, only nine could be considered *de facto* worldwide when observed in the context of significant sales activity and the number of countries. Furthermore, 320 out of 500 gained more than 80 percent of their revenue from domestic markets. (Rugman & Verbeke, 2009) Thus, even though the idea of restricting the global expansion of business might sound rather radical at first sight, in practice it would only concern a very limited group of organisations. As an annotation, fragmentism is not against globalisation *ipso facto*. On the contrary, fragmentism encourages releasing the forces of the free market and creative destruction as widely as possible.

For almost a century, large organisations and central economic planning have put us in trouble. This has been accompanied by a seemingly everlasting debate about which one fails less: free markets or central economic decision-making. However, both have undoubtedly failed and, ultimately, the root causes are the same. As has been discussed above, three attributes of systemic risks make the economy vulnerable and centralised decision-making dangerous. No more bailouts or unnecessary economic crises are needed. Moreover, socialising losses while privatising profits is not fair. Simultaneously, for a better-functioning economy, the invisible hand and creative destruction should be unleashed, since they deserve to be free. They have been chained by bad chaos in addition to the visible hand, and it is time to end that era. Fragmentism, which enables good chaos, puts Adam Smith, along with Joseph Schumpeter, in the spotlight again.

References

- Andriewsky, O. (2015). Towards a decentred history: The study of the Holodomor and Ukrainian historiography. *East/West: Journal of Ukrainian Studies*, 2(1), 18–52. <https://doi.org/10.21226/T2301N>
- Ashcroft, M. (2016, June 24). How the United Kingdom voted on Thursday ... and why. *Lord Ashcroft Polls*. <https://lordashcroftpolls.com/2016/06/how-the-united-kingdom-voted-and-why/>
- Bonefeld, W. (2012). Freedom and the strong state: On German ordoliberalism. *New Political Economy*, 17(5), 633–656. <https://doi.org/10.1080/13563467.2012.656082>
- Bradford, A., Chilton, A. S., & Lancieri, F. M. (2020). The Chicago School's limited influence on international antitrust. *University of Chicago Law Review* 87(2), 297–329. <https://doi.org/10.7910/DVN/WB7KPY>
- Brancaccio, E., Giammetti, R., Lopreite, M., & Puliga, M. (2018). Centralization of capital and financial crisis: A global network analysis of corporate control. *Structural Change and Economic Dynamics* 45(1), 94–104. <https://doi.org/10.1016/j.strueco.2018.03.001>
- Caves, D. W., & Christensen L. R. (1988). The importance of economies of scale, capacity utilization, and density in explaining interindustry differences in productivity growth. *Logistics and Transportation Review* 24(1), 3–32.
- Chandler, A. J. (1978). *The visible hand: The managerial revolution in American business*. Belknap Press.
- Clark, J., & Wildavsky, A. (1990). Why communism collapses: The moral and material failures of command economies are intertwined. *Journal of Public Policy* 10(4), 361–390. <https://doi.org/10.1017/S0143814X0000605X>
- Crouch, C. (2011). *The strange non-death of neo-liberalism*. John Wiley & Sons, Ltd.
- Cummins, J. D., & Weiss, M. A. (2014). Systemic risk and the U.S. insurance sector. *The Journal of Risk and Insurance*, 81(3), 489–527. <https://doi.org/10.1111/jori.12039>
- Dafny, L., Duggan, M., & Subramaniam, R. (2012). Paying a premium on your premium? Consolidation in the US health insurance industry. *American Economic Review*, 102(2), 1161–1185. <https://doi.org/10.1257/aer.102.2.1161>
- Das, D. K. (2010). Globalisation: Past and present. *Economic Affairs*, 30(1), 66–70. <https://doi.org/10.1111/j.1468-0270.2009.01976.x>
- Datta-Chaudhuri, M. (1990). Market failure and government failure. *Journal of Economic Perspectives* 4(3), 25–39. <https://doi.org/10.1257/jep.4.3.25>
- Day, R. (1982). Irregular growth cycles. *The American Economic Review*, 72(3), 406–414. [https://doi.org/10.1016/0304-3932\(93\)90008-4](https://doi.org/10.1016/0304-3932(93)90008-4)
- De Long, J. B. (2000). The triumph of monetarism? *Journal of Economic Perspectives*, 14(1), 83–94. <https://doi.org/10.1257/jep.14.1.83>
- Diefenbach, T. (2019). Why Michels' 'iron law of oligarchy' is not an iron law – and how democratic organisations can stay 'oligarchy-free'. *Organization Studies* 40(4), 545–562. <https://doi.org/10.1177/0170840617751007>
- Djankov, S., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2002). The regulation of entry. *Quarterly Journal of Economics*, 117(1), 1–37. <https://doi.org/10.1162/003355302753399436>

- Dreher, A., Gaston N., & Martens P. (2008). *Measuring globalisation: Gauging its consequences*. Springer.
- Fairley, P. (2024, April 15). There is a part of modern life that is so essential armies should never attack it again. *New York Times*. <https://www.nytimes.com/2024/04/15/opinion/ukraine-russia-power-grid.html>
- Financial Stability Board. (2009). *Guidance to assess the systemic importance of financial institutions, markets and instruments: Initial considerations*. https://www.fsb.org/2009/11/r_091107d/
- Freille, S., Haque, M. E., & Kneller, R. (2007a). Decentralisation, corruption and economic development. SSRN. <http://dx.doi.org/10.2139/ssrn.985638>
- Freille, S., Haque, M. E., & Kneller, R. (2007b). Federalism, decentralisation and corruption. SSRN. <http://dx.doi.org/10.2139/ssrn.951110>
- Fry-McKibbin, R., Hsiao, C. Y-L., & Martin, V. L. (2018). *Measuring financial interdependence in asset returns with an application to euro zone equities* (CAMA Working Paper, 5). Centre for Applied Macroeconomic Analysis. <https://cama.crawford.anu.edu.au/publication/cama-working-paper-series/12093/measuring-financial-interdependence-asset-returns>
- Eidenmueller, H. G. M., & Paz Valbuena, J. (2023). Taxes blown in the wind? The Siemens Gamesa bailout. *European Corporate Governance Institute – Law Working Paper*, 745, 1–15. <http://dx.doi.org/10.2139/ssrn.4653156>
- European Union. (2016). 12016M005/2016. *Consolidated version of the Treaty on European Union. Title I – Common Provisions. Article 5 (ex Article 5 TEC)*. http://data.europa.eu/eli/treaty/teu_2016/art_5/oj
- Finnish Government. (2021). *Hallituksen esitys 28/2021*. Ministry of Justice of Finland. <https://www.finlex.fi/fi/esitykset/he/2021/20210028>
- Friedman, M. (1976). *Adam Smith's relevance for 1976*. University of Chicago.
- Friedman, M., & Friedman, R. D. (1979). *Free to choose*. Harcourt.
- Føllesdal, A. (1998). Survey article: Subsidiarity. *The Journal of Political Philosophy* 6(2), 190–218. <https://doi.org/10.1111/1467-9760.00052>
- Gerring, J., & Thacker, S.C. (2004). Political institutions and corruption: The role of unitarism and parliamentarism. *British Journal of Political Science* (34)2, 295–330. <https://doi.org/10.1017/S0007123404000067>
- Grantseva Ageeva, V. (2023). *Russia's exceptional role in managing Kazakhstan's postcolonial identity*. Routledge.
- Gutiérrez, G., & Philippon, T. (2019). The failure of free entry. *NBER Working Paper*, 26001, 1–48. <https://doi.org/10.2139/ssrn.3408936>
- Harvey, D. (2001). *Spaces of capital: Towards a critical geography*. Routledge.
- Hien, J. (2013). The ordoliberalism that never was. *Contemporary Political Theory*, 12(4), 349–358. <http://dx.doi.org/10.1057/cpt.2013.19>
- Hirano T., Inaba, M., & Yanagawa, N. (2014). Asset bubbles and bailouts. *Journal of Monetary Economics*, 7(6), 7189. <http://dx.doi.org/10.1016/j.jmoneco.2015.09.008>
- Jones, R. W., & Kierzkowski, H. (1990). The role of services in production and international trade: A theoretical framework. In R. Jones & A. Krueger (Eds.), *The political economy of international trade* (pp. 233–253). Basil Blackwell.

- Keech, W. R., Munger, M. C., & Simon, C. (2012, March 8–11). *Market failure and government failure* [Conference presentation]. World Congress of the Public Choice Societies, Miami, FL, United States.
- Keynes, J. M. (1936). *The general theory of employment, interest and money*. Palgrave Macmillan.
- Knight, F. H. (1921). *Risk, uncertainty and profit*. The Riverside Press.
- Krieger, T., & Nientiedt, D. (2023). The renaissance of ordoliberalism in the 1970s and 1980s. *Constitutional Political Economy*, 1–16. <https://doi.org/10.1007/s10602-023-09411-2>
- Lehtonen, M.-O. (2016, September 15). Tämä mies nosti Finavian johdannaiset pöydälle: "Kuka tekee näin idioottimaisia sopimuksia?". *Kauppalehti*. <https://www.kauppalehti.fi/uutiset/tama-mies-nosti-finavian-johdannaiset-poydalle-kuka-tekee-nain-idioottimaisia-sopimuksia/38e739d4-ab88-3321-96dc-foe261d6c9f3>
- Lenel, H. O. (1976). Perfect and free competition as guiding principles in competition policy towards large enterprises. In A. P. Jacquemin & H. W. de Jong (Eds.), *Markets, corporate behaviour and the state: International aspects of industrial organization* (pp. 316–323). Springer.
- Loponen, T. (2015, April 13). Tutkintapyyntö Finavian johdosta. *Koillis-Helsingin Lähtietö*. <https://www.lahitieto.fi/2015/04/13/tutkintapyynto-finavian-johdosta/>
- Maes, I. (2008). The spread of Keynesian economics: A comparison of the Belgian and Italian experiences (1945–1970). *Journal of the History of Economic Thought*, 30(4), 491–509. <https://doi.org/10.1017/S105383720800045X>
- Mandelbrot, B. B., & Hudson, R. L. (2004). *The (mis)behavior of markets: a fractal view of risk, ruin, and reward*. Profile Books.
- Marx, K. (1867). *Das Kapital: Kritik der politischen Ökonomie*. Meissner.
- Marx, K., & Engels, F. (1848). *The communist manifesto*. Kommunistischer Arbeiterbildungsverein.
- McGee, J. (2014). Economies of scale. In C. L. Cooper (Ed.), *Wiley encyclopedia of management* (3rd ed., pp. 1–6). John Wiley & Sons, Ltd.
- McKenna, F. (2023, August 7). What made the Chicago School so influential in antitrust policy? *Chicago Booth Review*. <https://www.chicagobooth.edu/review/what-made-chicago-school-so-influential-antitrust-policy>
- Menon A., & Wager, A. (2020). Taking back control: sovereignty as strategy in Brexit politics. *Territory, Politics, Governance*, 8(2), 279–284. <https://doi.org/10.1080/21622671.2019.1702895>
- Michels, R. (1911). *Zur Soziologie des Parteiwesens in der modernen Demokratie; Untersuchungen über die oligarchischen Tendenzen des Gruppenlebens*. Werner Klinkhardt.
- Miliband, R. (1969). *The state in capitalist society*. Basic Books.
- Minsky, H. (1980). The finance and profits: the changing nature of American business cycles. *The Business Cycle and Public Policy, 1929–80*. 209–244. https://digitalcommons.bard.edu/hm_archive/63
- Minsky, H. (1986). *Stabilizing an unstable economy*. McGraw-Hill.

- Mühlnickel, J., & Weiß, G. N.F. (2015). Consolidation and systemic risk in the international insurance industry. *Journal of Financial Stability*, 18(1), 187–202. <https://doi.org/10.1016/j.jfs.2015.04.005>
- Nolan, P., Sutherland, D., & Zhang, J. (2002). The challenge of the global business revolution. *Contributions to Political Economy*, 21(1), 91–110. <https://doi.org/10.1093/cpe/21.1.91>
- Perrow, C. (2007). *The next catastrophe*. Princeton University Press.
- Peterson-Withorn, C. (2024, April 2). Forbes' 38th annual World's Billionaires List: Facts and figures 2024. *Forbes*. <https://www.forbes.com/sites/chasewithorn/2024/04/02/forbes-38th-annual-worlds-billionaires-list-facts-and-figures-2024/>
- Phillips, P. (2018). *Giants: The global power elite*. Seven Stories Press.
- Pietiläinen, T. (2015, November 11). Finavia teki johdannaisilla 34 miljoonan euron tappiot – myönsi isot puutteen riskinhallinnassa. *Helsingin Sanomat*. <https://www.hs.fi/talous/art-2000002868751.html>
- Piketty, T. (2013). *Capital in the twenty-first century*. Harvard University Press.
- Piore, M. J., & Sabel, C. F. (1984). *The second industrial divide: Possibilities for prosperity*. Basic Books.
- Reichart, A., & Slifi, A. (2016). The influence of monetarism on Federal Reserve policy during the 1980s. *Cahiers d'économie politique* (70)1, 107–150. <https://doi.org/10.3917/cep.070.0107>
- Renshaw, P. (1999). Was there a Keynesian economy in the USA between 1933 and 1945? *Journal of Contemporary History*, 34(3), 337–364. <https://doi.org/10.1177/002200949903400302>
- Richards, L., & Heath, A. (2018). *Sovereignty and co-operation: Different dimensions of Brexit. Brexit and public opinion*. The UK in a Changing Europe. <https://ukandeu.ac.uk/wp-content/uploads/2018/01/Public-Opinion.pdf>
- Robinson, E.A.G. (1958). *The structure of competitive industry*. University of Chicago Press.
- Rucht, D. (1999). Linking organization and mobilization: Michels's iron law of oligarchy reconsidered. *Mobilization: An International Quarterly*, 4(2), 151–169. <https://doi.org/10.17813/maiq.4.2.l2680365q32h6616>
- Rugman, A. P., & Verbeke, A. (2009). Competitiveness, and the multinational enterprise. In A. P. Rugman (Ed.), *The Oxford handbook of international Business* (2nd ed., pp. 146–180). Oxford University Press.
- Scholte, J. A. (2008). Defining globalisation. *World Economy*, 31(11), 1471–1502. <https://doi.org/10.1111/j.1467-9701.2007.01019.x>
- Schumpeter, J. (1942). *Capitalism, socialism, and democracy*. Harper & Brothers.
- Sen, A. (2002). How to judge globalism. *The American Prospect* 13(1). <https://prospect.org/features/judge-globalism/>
- Simons, H. C. (1934). *A positive program for laissez faire*. Chicago University Press.
- Sjostrom, W. K. (2009). The AIG bailout. *Washington and Lee Law Review*, 66(1), 943–991. <https://scholarlycommons.law.wlu.edu/wlulr/vol66/iss3/2>
- Smith, A. (1776). *The wealth of nations*. W. Strahan and T. Cadell.
- Stiglitz, J. (2009). Government failure vs. market failure: Principles of regulation. In E. J. Balleisen & D. A. Moss (Eds.), *Government and markets toward a new theory of regulation* (1st ed., pp. 13–51). Cambridge University Press

- Taleb, N. N. (2007). *The black swan: The impact of the highly improbable*. Random house Inc.
- Tricker, R. (2011). Re-inventing the limited liability company. *Corporate Governance: An International Review*, (19)4, 384–393. <https://doi.org/10.1111/j.1467-8683.2011.00851.x>
- United States Creator. (1789). *Bill of Rights*. Library of Congress. <https://www.loc.gov/item/2021667570/>
- Vercelli, A. (1985). Keynes, Schumpeter, Marx and the structural instability of capitalism. *Cahiers d'économie politique*, 10–11, 279–304. <https://doi.org/10.3406/cep.1985.1013>
- Ward, B., & Guglielmo, M. (2021). Pop-socialism: A new radical left politics? Evaluating the rise and fall of the British and Italian left in the anti-austerity age. *The British Journal of Politics and International Relations*, 24(4), 1–16. <https://doi.org/10.1177/13691481211044643>
- Widmalm, S. (2008). *Decentralisation, corruption and social capital: From India to the West*. Sage Publications.
- Wilks, S. (2013). *The political power of the business corporation*. Edward Elgar Publishing Limited.
- Wu, T. (2018). *The curse of bigness: How corporate giants came to rule the world*. Columbia Global Reports.
- Zerbe, R. O., & McCurdy, H. E. (1999). The failure of market failure. *Journal of Policy Analysis and Management*, 18(4), 558–578. [https://doi.org/10.1002/\(SICI\)1520-6688\(199923\)18:4<558::AID-PAM2>3.0.CO;2-U](https://doi.org/10.1002/(SICI)1520-6688(199923)18:4<558::AID-PAM2>3.0.CO;2-U)