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Abstract

This chapter revisits two century-old major financial and health crises and compares them with the recent global 2008 financial crisis and the COVID-19 pandemic. In spite of each crisis' specificities, many triggers and the major consequences are similar, especially in the case of financial crises. The analysis suggests that ignoring previous experiences may lead to the repetition of avoidable errors, for no matter how distinct current troubles may seem, similar ones have occurred before. The past is thus a relevant reference when searching for solutions to solve present problems and to avoid future ones.

Keywords

Financial Crises, Economic Depressions, Pandemics, Lessons from History

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Introduction

Time and memory are pivotal in our exercise of going back to the past in order to better understand the present, but the conceptualisation and dimensionality of time varies across scientific domains. In the field of economics, researchers have strived to include time among the variables in their dynamic models, sometimes treating it as a resource. Economists usually distinguish between the short-term, to identify the immediate impact, and the long-term, to uncover more long-lasting effects, despite warnings from the most prominent economist, John Maynard Keynes, that in the long-term we are all dead. This distinction is important in our analysis of recent crises. Immediately after the last financial turmoil, governments opened their purses with generous programmes of public spending to substitute for declining private incomes. In the longer-term, however, most countries had to endure a

long period of austerity. The first reaction to the current health crisis was an almost complete shutdown of most economic activity, with massive financial flows to individuals and firms. After some time, however, government intentions reversed, encouraging the quick return to ‘normal’ economic activities, to avoid an even more serious economic breakdown and a return to austerity.

Economists also acknowledge the effect of time on memory, how it changes people’s perceptions and behaviour. This is also quite relevant for this chapter. After every crisis, public opinion forces governments to take pre-emptive actions to avoid future similar ones. Tougher regulations on the financial markets, on the one hand, higher spending on public health and related research, on the other, show a strong resolution to ensure that next time may be different. However, as memories of past crises slowly but inexorably

fade, so does public pressures and governments' precaution.

In what follows we focus on crises occurred in the early twentieth century: the 1918 influenza pandemic and the United States' (US) stock market crash of 1929, in an attempt to draw lessons for the present. In fact, although the order of events has not been the same, crises comparable in nature and scope have already occurred in the new century: the 2008 *subprime* financial crisis and the Coronavirus disease (COVID19) pandemic. By focusing on past events and examining policy measures adopted to address the consequences of those crises, or to prevent the re-emergence of similar ones, we try to identify useful guidance for the current conjuncture.

The relevance of past crises

Financial and health crises are inter-related phenomena. Amongst many other aspects, the former influence the social and economic consequences of the latter, because they prompt economic downturns and thus reduce the resources available for research, education, and public health and welfare services. Both types of crises share common features, of which we mention two that are relevant for the analysis developed in this chapter. One is that they have been intermittent throughout history but, whenever they occur, they are often viewed as exceptional occurrences. This is mostly due to the fact that more than one major episode of such adversities are rare in a single generation. Therefore, the memory that holds for some years in their aftermath fades away. Another is that although financial crises are often caused by domestic deregulation and

analytical flaws resting on unrealistic assumptions of how markets work, their impact is greatly enhanced by globalisation and thus, as with pandemics, global, cooperative solutions are required to reduce contagion and its consequences.

Financial Crises

When the first worrying signs of the subprime crisis arose and developed, anyone who read the financial news would have thought that a very singular event was unfolding. As the press reported first the defaults on subprime mortgage loans, and afterwards their increasingly widespread impact in the US financial system, what was happening was described as something that could not have been predicted. It took a while to become clear that what was occurring would probably become the worst financial crisis since the 1929 stock market crash, but as such notion settled, so did the narrative that it could not have been anticipated.

In fact, this was not the case. Not many economists foresaw the last financial crisis and the severity of the subsequent economic depression, but those who did, draw attention for an imminent financial disaster. Perhaps the most prominent amongst those anticipating a crisis was Nouriel Roubini who, in an International Monetary Fund address in 2006, was specific in pointing out the impending bursting of the housing bubble, its transmission to the rest of the US financial system and economy, and its impact across the world.¹

Why did Roubini and others predict this and previous financial crises? Because financial crises have been pervasive throughout history, and have been thoroughly

¹ Roubini's 2006 address at the International Monetary Fund is available at: <https://www.businesscycle.com/ecr-news-events/news-details/nyt-roubini-article-imf-transcript>

investigated. Published studies display long lists of financial crises occurred across the world (examples were produced by Kindleberger and Aliber, 2005, or Reinhart and Rogoff, 2009). Such analyses describe episodes arising as early as the fourteenth century and highlight two interesting aspects. One is that although every crisis has its specific features, they all share commonalities that have allowed the identification of their most relevant causes and consequences; the other is that throughout history, the periods of time when no financial problems occurred have been scarce, but telling in terms of the roles of governments and regulators in the stabilisation of financial systems.

The research developed so far suggests that some indicators (for example volumes of credit, asset prices, economic activity and international trade and financial flows) behave in the same way before a crisis. Their evolution in the US prior to 2008 prompted some observers to announce an eminent crisis. The aftermath of crises also display similar effects on prices, output, employment, and government debt. The similarities of financial crises led Hyman Minsky to develop a model describing how a crisis progresses that has had explanatory power for all occurred crises. Kindleberger and Aliber (2005) assess such validity up to the early 2000s, but the model is also valid for the 2008 subprime crisis (see Silipo, 2011).

According to Minsky, crises are not anomalies. They are the outcome of the dynamics of economic and financial activities that internally promote financial fragility and incoherent behaviours characterising the phases preceding a crisis (Minsky, 1977, 1992). A fragile financial structure is required to originate a crisis but the fragility of financial systems is a normal feature resulting from the dynamics of market economies. Systems

may start to be robust but, due to the way investments and the stock of capital are financed, gradually grow more fragile.

Minsky classified debt as precautionary, speculative and Ponzi (Minsky, 1977). Debtors of the first type have enough income to pay interest and capital; for the second type, debtors' income is sufficient to pay the interest but the principal will only be paid by contracting new debt; with the third type, there is no income to pay either interest or capital. An example of the last type of debt occurs when a bank lends money for the construction of a real estate project and payments can only be made once the project is finished. The loan is granted assuming that home sales will yield more money than required to pay interest and principal. The degree of robustness of the financial system depends on the proportion of precautionary debt that exists at each moment. When the majority of granted loans are of this type, the financial system is robust. As the percentage of speculative and Ponzi debt increases, so does the fragility of the system.

Why does the normal functioning of market economies endogenously turn a robust financial system into a fragile one? This occurs because investment is mostly financed through debt and the assessment of capacity to pay incurred debts is based on the expectation of future earnings. Thus, individuals assume responsibilities for making *certain* payments over a defined period of time, rooted on expectations of *uncertain* future income. In the aftermath of a crisis, both borrowers and lenders are more cautious, establish adequate safety margins and therefore most existing debts are of the precautionary type. Such behaviour enhances the financial system's robustness. Nevertheless, as financial robustness translates into financial stability and economic growth is

viewed as sustainable, precautionary safety margins diminish and fragility that may lead to financial crises starts building up.

Following the stock market crash of 1929, and the 1930s economic depression, major monetary reforms occurred in the US. Laws were implemented to address the weaknesses identified in the financial system. Examples are the National Banking Act (or Glass-Steagall Act, which separated commercial and investment banking activities) or the Banking and Financial Act. Such legislation, the reinforcement of the Federal Reserve's role as creditor of last resort, and the government's intervention, allowed the US to live a period of financial stability in the three decades that followed the Second World War. During that phase, with the crisis still vivid in collective memory, banks were cautious in granting credit and precautionary debt predominated - the financial system was robust.

As prosperity continued, financing decisions gradually reflected expectations that favourable economic conditions would continue. With time, banks became less careful, lowering safety margins and financing projects that previously would have been rejected. Such behaviour is rational, since if a bank does not grant credit for riskier projects, another bank will, lowering the first's profits' prospects. When economic growth is expected to continue, it makes sense to finance a project even if the debtor is unable to pay the capital, or interest, before the project's completion. In the end, there is a good chance that the investment will generate money to pay all that is due. However, this climate of euphoria and easy credit often promotes the emergence of one or more speculative bubbles (for example, in housing or financial markets).

No bubble expands forever and no phase of

euphoria is eternal. At first signs of trouble, bankers begin to get nervous about the amount of risky credit already granted, becoming more careful with new credits and demanding payment of due interest. Eventually, they may even temporarily ration lending. Again, this behaviour is rational from each bank's point of view. But when all creditors change attitudes, money becomes scarce, even for those capable of paying debts. In order to fulfil their obligations, some debtors have to sell assets, leading to a decrease in their value and ultimately putting in motion a depressive spiral, with falling prices, falling profits and falling investments. Unless the government intervenes, the result is a deflationary debt crisis and an economic depression.

After a long period of stability, a number of financial crises occurred in the US from 1979 onwards, but none comparable to the financial crisis of 1929, so far the most severe in history. The 1929 crisis stands out as an example of a lesson first learnt and later disregarded. The most relevant warnings remained valid for a while. In fact, it took almost 70 years to re-enact the conditions capable of originating an equivalent crisis. The financial system deregulation which gradually dismantled safety nets put in place in the 1930s began in 1978. More than 20 years of lobbying were required before the complete revoking of the Glass-Steagall Act (forbidding financial institutions from combining commercial banking, investment and insurance operations). This finally occurred in 1999, with approval of the Gramm-Leach-Bliley Act (see Sherman, 2009). By the end of the twentieth century, politicians had finally been convinced that financial markets were capable of self-regulation and did not need the regulatory devices put in place following the 1929 financial debacle. Complex derivative products and practices, and quasi banks, thus developed without

supervision. When severe crisis' triggers were identified (as the rapid increasing levels of house prices and of subprime mortgages), those calling attention for the severity of the situation were dismissed as heralds of doom.

The 1920s were, in the US, mostly a decade of economic growth and cultural innovation, known as the 'Roaring Twenties'. Such optimistic environment fuelled stock market speculation, a trend that continued despite clear signs of economic cooling from 1927 onwards (McMillin and Parker, 1994). By 1929, there was an inconsistency between economic perspectives and stock prices. The stock market was so disconnected from the economic reality that the Federal Reserve increased interest rates in an attempt to depress stock prices. Nevertheless, such increase not only did not attain its objective but contributed to augment the economic contraction, further increasing the gap between the economy and the stock exchange.

In order to participate in the stock market bonanza, or to increase the gains that could be made, many bought stocks with borrowed money. Therefore, when the bubble burst and stock prices started to collapse (on October 24, 1929 - 'the Black Thursday') and reached the lowest levels five days later (October 29 - 'the Black Tuesday'), large fortunes were lost, but also small savings and family houses. People lost money not only due to the crash, but also following the many bank failures, firm closures and high unemployment.

The financial crisis, the contractionary monetary policies adopted and the absence of fiscal stimulus, propelled and sustained the most severe economic and social crisis in US history. The Great Depression, characterised by a decade of real economic stagnation and high unemployment, was also

exported to many countries, mainly due to the links binding them within the fixed foreign exchange rates system of the Gold Standard (for details see Obstfeld and Taylor, 2003).

As the 1929 financial crisis began with the burst of a stock market bubble, the 2008 crisis began with the burst of a real estate bubble. The concession of loans to buy houses to people with no conditions to repay them had for a while been a concern in the US. The fact that the banks could securitise such mortgages into mortgage based securities, subsequently sold to third parties and thus written off the banks' balance sheets, led to the concession of such credits without careful risk evaluation.

The absence of adequate regulation, and the belief that an unsustainable situation could be prolonged, allowed the accumulation and disguise of bad debt and to its spread across the US financial system. The high level of international financial integration allowed contagion to many foreign countries.

Some lessons from the 1930s were not taken into account in the new century. Amongst them the fact that financial systems are not capable of self-regulation, that financial institutions should not be allowed to combine low risk commercial and speculative investment activities, and that precautionary debt should prevail over speculative one. Other lessons are still considered valid and have prevented a financial crisis similar to that of 1929 from having the depressive economic consequences witnessed in the 1930s. Indeed, an economic and social depression followed the subprime crisis but, in contrast to strategies followed during the Great Depression, the monetary and fiscal policy reactions that ensued, plus the attempts to sustain international trade, prevented a longer depression in many countries.

However, as in the 1930s, the financial crisis provoked an economic slowdown, high unemployment and increased public debt. The latter resulted not only from the bailing out of financial institutions but also from reduced tax earnings and increased social expenses to support the livelihood of those in need. As a result, many countries reduced the public money available for scientific research, health services and education and, when the COVID19 pandemic hit, they had to deal with the consequences of under financed national health services, and fluctuating funding of research on Coronaviruses.

Health Crises

Like financial crises, pandemics are also not rare. A wide range of studies have reported episodes of international contagion of various diseases (the bubonic plague, smallpox, measles, or influenza) throughout history (see Cartwright and Bidiss, 1991). The most serious influenza pandemic occurred one hundred years ago, in 1918-19, and has become known as the Spanish Flu, although it has extensively affected Europe, the US and Asia.

Pandemics are an inevitable side effect of civilizational progress. Globalisation transfers wealth, technology, knowledge, but also viruses. The immediate consequences, observed in all such events throughout history, are rapid economic downturns and loss of many human lives. The same has been observed with the COVID19 pandemic. The relevant question now is whether longer-term effects from previous pandemics may also be a guide for what can be expected in the post-pandemic period.

The first type of effects concerns the heterogeneous impact on long-term economic growth. Globalisation-led growth is expected to fall, as private spending declines,

borders close and international trade recedes. The example of the Spanish Flu is not very helpful, since its effects on international trade have been entangled with those triggered by the First World War. Although current events may not be as critical to international trade, there is already a determination in most countries to decrease dependency on foreign suppliers of some basic products and services.

Some research shows that pandemics may however have positive effects on long-term economic growth rates. Brainerd and Siegler (2003) show that, controlling for a large number of other factors, last century's influenza pandemic had a significant positive impact on economic growth. In the US, the states more hardly hit were those later displaying higher rates of *per capita* economic growth in the following decade. This effect may have been caused by the increase in real wages, something not currently observed. There may however be a positive long-term impact of the COVID19 epidemic on productivity, and economic growth, arising from the hastened adoption of more technologically-advanced production methods. Also, the increasing trend in the number of people working from home, if not reversed, may have a positive impact on productivity, avoiding time-consuming commuting and long face-to-face meetings.

These effects are however heterogeneous across society. Poorer people are likely to be more adversely affected, being more vulnerable to unemployment and to lower incomes, since their jobs may be more difficult to perform from home or to respect the required social distancing. Cajner et al. (2020) show that employment at the top fifth of the income distribution in the US dropped only a quarter of the fall observed at the bottom fifth. However, history suggests that major crises tend to reduce inequality in the long

term. Piketty (2014) shows that the epidemics, financial and economic crises, and the world wars occurred in the first half of the twentieth century led to a more even distribution of income. Richer people are more negatively affected by stock market crashes and sustain the brunt of additional taxation required to finance extra public spending. Also, after major crises, pressure increases to extend the welfare state, a leveller of living conditions (Sihvo and Uusitalo, 1995, Vis et al., 2011, and Nettle et al., 2020). In particular, Bretnauer (2019) suggests that the influenza pandemic has gradually led to systems of universal access to health care.

There are now some concerns of a rise in gender inequality, unlike what evidence shows for other crises (Alon, and others, 2020). Some businesses traditionally run by and employing a larger share of women have been critically affected: hairdressers, hotels, shops or nurseries, for example. Women are also usually the first to quit jobs when there is a need to look after older relatives or small kids, while nursing homes, schools and kindergartens are closed. This is in stark contrast with previous recessions, including the recent financial crisis, when male-dominated sectors were more hardly affected (Doeppke and Tertilt 2016).

The second kind of effect concerns demographics. In previous major pandemics, high mortality caused a population plunge. The fourteenth century's Black Death could have killed up to two thirds of European population, the Spanish Flu in the twentieth century up to one hundred million (see Benedictow, 2017, and Mamelund, 2017). This time, with better health and social care, improved living conditions, easy access to information, and a significant effort on research for medication and vaccines, the death toll is not likely to be as critical.

A third type of effect of pandemics is a shift in the balance of political and economic power between world regions. The impact and consequences of a pandemic, albeit of the prefix 'pan' are not uniform across nations. Some countries are more dependent on economic sectors severely affected, like tourism for instance. Some countries bear higher death tolls and require major health-related public spending. The Spanish Flu, as the designation suggests, was more severe in the Southern European countries (Johnson & Mueller, 2002). The COVID19 pandemic is also affecting countries with differing degrees of severity.

There are already some signals that the current pandemic may be pivotal in changing the old world order. The messy handling of the crisis in the US, and the seemingly more efficient way in which China has contained the spread of the virus and of its consequences, the fact that China's officials publicly announced its vaccine will be shared as a 'global public good', while the US attempts to secure privileged access and hoard large amounts, may boost the already emerging indications of China's prominent place in the world pecking order.

Some caution is required when comparing this with previous pandemics, but the severity and dire consequences of past episodes are a warning for attempting not to repeat past mistakes handling the crisis. We now have the benefit of research-informed early alerts, allowing the authorities to prepare contingency plans for worst-case scenarios. Many studies had predicted the near occurrence and dire consequences of a global pandemic (e.g. Keogh-Brown et al., 2010), particularly after the identification in 2003 of the SARS Coronavirus. Better living conditions, health systems, knowledge and public resources to intervene are a reminder that, unlike previous similar situations, we

now hold in our hands many more tools to deal with the circumstances. We should not waste them. This crisis uncovered many of our weaknesses; it should also expose humanity's major strengths.

Conclusions

Historical records show that neither financial crises nor pandemics are rare events, although major episodes of both tend to be felt solely once in each generation. There is thus no reason to think that after a large period of time without significant disturbances of these two kinds, the world has seen the last of them. Past experience has also shown that the higher the level of globalisation, the more widespread is the contagion of financial, economic and health emergencies. It is thus key to conclude that global problems require global solutions.

Financial crises, for not being dependent on natural developments, are much more preventable than health ones. Although human traits sustaining greed and irresponsible risk-taking behaviour have remained unchanged throughout history, governments and financial regulators are responsible for putting in place, and maintaining, the institutional, legislative and supervision protocols that prevent such traits from materialising into societal tragedies. Financial crises provoke economic depressions and are a drain for much needed resources. The last one has translated into a lack of public support for sectors that have now emerged as vital for the provision of the instruments required to face the many challenges of the COVID19 pandemic.

The financial system is fundamental for economic and social development and it is the joint responsibility of domestic and international authorities to make sure that it does not continue to play the inverse role of

resource absorber that we have been lately observing. It is relatively more difficult to prevent the emergence of new pandemics. However, it is possible to reduce their negative impacts by maintaining the financial support required to sustain scientific research, national health and welfare services, and good public education and social nets. If financial crises do not occur, there will be more resources available to these ends.

Past events tend to re-occur when memory of their consequences fades. Therefore, our failure to keep earlier experiences alive will translate into the periodic repetition of the same crises. Unless international coordination forces compliance with adequate prevention and control mechanisms, present and future generations will continue to face essentially the same problems that periodically have been affecting humanity. Nevertheless, unsettling times, as the ones we currently face, have been proven to be fertile ground for big societal leaps forward. We thus may come out of our present troubles with tools capable of, at least, pushing the next crises well into the distant future.

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