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When the Economic Road Ends

Is Another Great Depression on the Horizon?

Tuomas Malinen

The crisis takes a much longer time coming than you think and then it happens much faster than you would have thought.

– Rudiger Dornbusch

We begin with a quintessential American expression: "uh oh." Those words very likely embody the thoughts of the chief examiner of the U.S.-based Silicon Valley Bank (SVB) on 10 March 2023, the day when that bank faced a cataclysmic run on its deposits. In just two days, SVB customers tried to pull an astonishing *87%* of deposits from the bank. It is obvious that no bank can survive such an onslaught. SVB was destined to fail. And so, it did—on that very day, in fact.

Jonathan Rose, a historian and Senior Economist at the Federal Reserve Bank of Chicago, has published an eye-opening inquiry into the historical parallels of the runs on Silicon Valley Bank, Silvergate, Signature Bank, and First Republic in a recent article in the academic journal *Economic Synopses*. His research paints a startling picture on the scope of those runs, placing them in the context of the history of the largest depositor runs in the U.S. banking system between 1934 and 2021.

Rose found that the most destructive bank runs in the period following the Great Depression of the 1930s and before 2022 have been the runs on Continental Illinois and Trust (which commenced on 7 May 1984), Washington Mutual (8 September 2008) and Wachovia (15 September 2008). They saw a deposit outflows of 30%, 10.1%, and 4.4% of total deposits, respectively. To note, the run on Continental Illinois in 1984 was already a largely electronic one due to automated wire transfers, and thus "lightning fast."

The outflow from Silvergate was 52% (during Q4 2022); on SVB it was 87% (10 March 2023 + expected during the next day); on Signature it was 29% (10 March 2023 + expected next day); and on First Republic it was 57% (approx. between 10-24 March). These are truly historical figures, matching those seen during the Great Depression.

Many authorities and analysts are currently pondering what this all means for banks, their deposits, and countries in general, and where we could be heading. In this essay, I will explain why authorities have caused the on-going crisis, why is it likely to get much worse, and what this implies for the world. I will conclude with a bit of unsolicited advice on how a certain category of countries, which includes Azerbaijan, can prepare and even benefit from its effects.

This essay explains why authorities have caused the on-going crisis of bank runs, why is it likely to get much worse, and what this implies for the world

Short History of Banking Panics

The first recorded financial crises occurred in the Roman Empire, which had a highly sophisticated financial system. Often crises were caused by some changes in regulations (or the 'whims' of emperors), which in turn triggered a panic among lenders and/or borrowers. When the European banking system started to develop in the Middle Ages, banking crises, naturally, re-emerged. The most well-known from this period are probably the failures of banks owned by the Peruzzi and Bardi families, in 1343 and 1346, respectively. Their lending to England's King Edward III as he prepared for a conflict with France that turned into the Hundred Years' War, combined with political and economic upheavals in Florence, led

Tuomas Malinen is CEO and Chief Economist of GnS Economics, an independent macroeconomic consultancy specialized in forecasting and analyzing the risks of the world economy and financial markets. He is also an Associate Professor of Economics at the University of Helsinki. *The author wishes to thank Peter Nyberg and Máté Sütó for their insightful comments and suggestions. The views expressed herein are his own.*

to bank-crushing runs on those institutions.

The 1800s can be considered as the century of bank runs. Yale University economist Gary B. Gorton, one of the leading scholars on financial crises, calculates in his 2012 book *Misunderstanding Financial Crises* that the U.S. alone witnessed eight national bank runs during this period (in 1819, 1837, 1857, 1873, 1884, 1890, 1893 and 1896). Most of these coincide with the U.S. economic event most neglected by economic historians: the Long Depression (1873-1896). While researchers are still debating which of these runs should be considered as "national," the fact remains that the nineteenth century produced a very high number of bank runs in America, not to mention elsewhere.

The largest banking crisis was, as is well-known, the Great Depression. Over 40% of banks, some 9,800 in total, failed in the United States during 1930-1934. This crisis quickly escalated into a global one, with, for example, the Austrian banking giant Credit-Anstalt failing in May 1931 and the Germany-based Danatbank failing in July 1931. Germany actually experienced a full-blown bank run during the summer of 1931. This was caused by the remnants of hyperinflation, heavy war reparations (demanded especially by France, as per the Treaty of Versailles), and the failure of creditor countries to admit the dire straits of the German economy. After the Great Depression and World War II, a long "quiet period" followed, which was abruptly broken by financial panics in the Nordic countries (most notably in Finland) and in Japan in early 1990s.

The Great Financial Crisis (2007-2012) was caused by a systematic failure of hedging of U.S. mortgage loans by the banking sector and by the imbalances caused by the EU's common currency (the euro) to its weaker members, namely Greece, Portugal, and Spain. This needs to be explained, briefly. The reason why some economists fail to see the 2007-2009 and 2010-2012 crises as two parts of a single whole is most likely due to their lack of understanding of the nature of the crisis in Europe. The EU's "debt" crisis of 2010-2012 was a 'brewing' banking crisis, which would have erupted full-on had Greece defaulted on its debts (a very high share of which was held by German and French banks) and consequently abandoned the euro as its currency. The EU "debt" crisis was put in motion as a consequence of the

shock to the U.S. banking system in 2007-2009, which turned the flow of speculative capital out of the periphery of the Eurozone. For these reasons, I consider that the Great Financial Crisis runs from 2007 till 2012.

What Are Banking Crises?

To put it in slightly simplified terms, *a banking crisis is an overwhelming demand of holders of bank debt to convert it into cash or other liquid forms of assets in the excess of reserves of a bank.*

A bank is an exceptional entity in the sense that while, for example, the output of a tractor company is tractors, the output of a bank is debt. This makes the bank an 'anomaly' in the corporate world. It follows the same accounting principles as any other corporation, but its output is a financial contract (i.e., debt). Commonly, this debt is given out as an 'IOU,' meaning that the bank gives a promise that whatever sum you deposit there, you get it back whenever you want. In addition to deposits, this bank debt can be in the form of bonds, derivatives, or inter-bank funding the bank has obtained from inter-bank markets. These are all liabilities to a bank, over which the holders have a claim.

A banking crisis is an overwhelming demand of holders of bank debt to convert it into cash or other liquid forms of assets in the excess of reserves of a bank.

Because the output of a bank are debt contracts, their holders, i.e., customers can claim them, basically, overnight, that is, depositors can withdraw their (demand) deposits almost instantly and holders of bank bonds and stocks can sell them, when the markets are open. This means that, basically, the whole "production" of a bank can collapse in a very short period of time through normal business transactions, whose level just overwhelms the resources (liquidity) of a bank. Hence the name: bank run. Basically, no other form of company has such "ticking time bomb" embedded in the very heart of its business model.

It was long thought—and is even now considered by most—that it is the job of regulators to make sure banks do not take excessive risks. This time around, however, the relevant authorities have done the exact opposite. I will explain this next.

A Crisis Caused by Authorities

The global regulatory arm of commercial banks is the Basel Committee on Banking Supervision (BCBS), which operates under the Bank of International Settlements (BIS). BIS is often called the "central bank of central banks," as it provides guidance also for central banks.

BIS was founded in 1930, making it the oldest extant international financial institution. It first acted as trustee and agent for the international loans intended to finalize the settlement of the reparations stemming from World War I, which explains its name. Then, as now, BIS accepts deposits of a portion of the foreign exchange reserves of central banks and invest them prudently to yield a market return. The BIS also provides a forum for policy discussions and international cooperation among central banks. Therefore, the actual contemporary role of the BIS in international finance is quite hidden. Some might even say 'well hidden,' because we know very little about what goes on in the BIS-led discussions between central banks. The work of the Basel Committee, on the other hand, is rather public, or at least is regularly reviewed.

The Basel Committee, originally called the Committee on Banking Regulations and Supervisory Practices, is an international banking supervisory board. It was established by the central bank governors of the Group of Ten countries at the end of 1974 in the wake of serious disturbances in international currency and banking markets (notably, after the failure of Bankhaus Herstatt in West Germany, which led to a counterparty failure in currency markets). Its role at the beginning was to enhance financial stability and serve as a forum on banking supervisory matters. Later, it developed into an authority that sets regulatory guidelines for global banking supervision.

In the wake of the Great Financial Crisis, the Basel Committee released its third set of internationally agreed set of measures (i.e., rules) for banks called 'Basel III.' The most ground-breaking, and also, in this case, destructive concept was the establishment of something called the Liquidity Coverage Ratio (LCR), which is calculated by dividing a bank's High Quality Liquid Assets (HQLA) with its total net cash flows over a 30-day stress period. This was meant to ensure *that banks hold sufficient liquid assets to prevent central banks becoming the lender of first resort*, as stated at the time by the Group of Central Bank Governors and Heads of Supervision (GHOS), an oversight body of the Basel Committee on Banking Supervision.

The HQLA were divided into three categories: Level 1, Level 2A, and Level 2B. Level 1 assets included cash and coins, central bank reserves, and marketable securities representing claims on or guaranteed by sovereigns, central banks, and certain recognized global institutions like the International Monetary Fund (IMF). A 'haircut' of the market value of 15% or more is subjected to Level 2A and 2B assets, in the LCR formula. After haircuts (i.e., cuts in the value of an asset in accounting), an upper limit of 40% of the overall stock Level 2A and 2B assets in the banks' portfolio was set. This effectively established a very strong incentive for banks to holds cash, central bank reserves, and government bonds.

While the Federal Reserve has yet to fully implement the Basel III LCR rules in the United States, it gave pre-notification of doing so in October 2013, with a proposed transition period running from January 2015 until January 2017. While the LCR still has not been fully implemented yet, it is likely that proposed transition period affected how banks handled their risk management. Moreover, the Basel II framework (the forerunner to Basel III), which was implemented in the U.S. in 2008, placed different risk-weights to bank capital with, for example, U.S. Treasuries having the lowest risk-weights. This essentially meant that Treasuries were preferred, by the authorities, as a source of bank capital, in addition to cash and central bank reserves.

Thus, because cash and coins as well as central bank reserves are a relative short supply, the U.S. banks began to acquire larger proportions of sovereign bonds. This is what SVB did, for example. That is, SVB bought U.S. Treasuries to counterbalance the risk caused by the major inflow of deposits. Effectually, SVB did what the authorities wanted, and it was not alone.

Deposit Binge, Panic, Rescue

The U.S. deposit base has changed rather drastically during the past three years. The trend-like growth of commercial banks' demand deposits commenced around 2010. During the next ten years, they grew from around $450 billion to $1,500 billion. However, the COVID-19

lockdowns (curbing consumption), the vast amount of stimulus checks issued by the U.S. government, and the massive monetary stimulus (effectively, a bailout of the financial markets during the spring of 2020) of the Federal Reserve rocked the demand deposits in the U.S. commercial banks to over $5,000 billion in just two years.

These measures also ignited inflation, which forced the Fed to start its most aggressive hiking cycle ever in April 2022. In just little over a year, the Federal Funds Rate rose from 0.08% to over 5%. Naturally, the yields of U.S. Treasuries followed, inversely. The 20-fold rise in, for example, the yield of the 2-year Treasury note meant that the value of the underlying bond crashed. This in turn meant that those banks that had accrued them with near-zero rates (as encouraged by the relevant banking authorities), suffered heavy losses. These were labelled as "unrealized losses," because banks obtain Treasuries as a held-to-maturity asset, which means that banks let them mature after which the Treasury returns the principal of the bond and pays the interest. Thus, they are not "actual losses" unless a bank is forced the sell the Treasury before it matures. Now, if a bank would face a deposit flee burning through its cash and easily liquified assets, it would be forced to sell the Treasuries with a considerable loss. This is what happened, for instance, to SVB. It was estimated that at the end of 2022, U.S. banks (taken as a whole) were sitting on nearly $2 trillion worth of unrealized losses. The large amount of unrealized losses was one reason why the run on SVB has spread, which forced U.S authorities to intervene, strongly.

By 12 March 2023, U.S. authorities had concluded that there was a risk of a nationwide bank run. To halt it, they devised a three-step strategy. First, there was a joint statement from the Treasury, the Federal Deposit Insurance Corporation (FDIC), and the Fed, announcing that *all* depositor funds (also uninsured deposits) held in SVB and Signature Bank were guaranteed. Secondly, the Federal Reserve provided $300 billion worth of liquidity into the system and announced that it will make "additional funds" available to all banks in what it called a Bank Term Funding Program (BTFP). Thirdly, in a highly exceptional move, U.S. President Joe Biden appeared on national television to assure that deposits in *all* American banks are safe.

Such a combination of rapid actions is truly exceptional, and it confirmed that the United States

was on the verge of a catastrophic nationwide bank run.

True Problems Have Not Yet Emerged

The exceptional moves by the U.S. authorities quelled the panic in the U.S., while the "merger" (effectively a shotgun wedding) of UBS and Credit Suisse calmed things down in Europe. But only in the short term. Already at the end of April 2023, the crisis re-emerged with the failure of another U.S. regional lender, First Republic Bank. Its unfortunate fate provides important clues as to where the crisis is heading.

First Republic Bank had a heavy exposure to commercial real estate in metropolitan areas, including San Francisco, New York City, Boston, and Los Angeles, from which especially the first one was experiencing a deep slump in commercial real estate (it has continued unabated into the summer months). At the end of 2022, an astonishing 83% of First Republic Bank's loan book consisted of real estate loans. Deposits accounted for 90% of the bank's liabilities, and it had $4,760 billion worth of unrealized losses, which was some 27% of its total equity. In other words, First Republic Bank was not toppled by unrealized losses, but by its loan book. Why, one could ask, did First Republic Bank simply not borrow the money flowing out from the BTFP? Well, because it could not. The reason will become clear in the paragraphs that follow.

A 2016 paper by Natacha Postel-Vinay published in the *Journal of Economic History* provides an important notion from one of the most destructive bank runs during the Great Depression, or ever, namely the Chicago Panic of June 1932. Its findings are directly relevant to the present-day situation. Back then, wire transfers had already become commonplace, which means that part of the runs of that era also occurred electronically (i.e., rapidly). In her paper, Postel-Vinay shows that the size of the real estate loan portfolio was a crucial factor in determining the probability of a failure of a bank during the Chicago Panic, between 20-28 June 1932, because commercial real estate, and especially mortgages, had (have) very long contract maturities. Banks simply could not liquidate these to pay out heavy deposit outflows; as a consequence, they failed.

Small regional banks in the United States currently hold a vast majority of real estate loans (the figure is close to close to $2 trillion).

In regional banks these have grown by 35% since the beginning of 2020, and by whopping 147% since bottoming out during the last week of 2011. Because real estate loans cannot be liquidated, many of these banks are likely to fail, if (or when) runs in the U.S. banking system commence. For example, First Republic Bank was able to borrow only around $13 billion from the Fed's BTFP scheme, because it did not have any more assets to post as eligible collateral.

The cascading effect of the above is a decline in the ability of banks to lend, as deposits make up a large portion of liabilities of banks (especially regional banks). Thus, a growing deposit base enables the growing of the asset side of the balance sheet, including loans, and vice versa.

Credit Depression?

In the May 2023 issue of *Deprcon World Economic Outlook*, a monthly publication put out by my firm, GnS Economics, we explored the credit tightening currently ongoing in the U.S. We noted:

> The outflow of deposits from banks started at the beginning of November [2022] (there was a notable decline already in October [2022]). At the same time, inflows to money market funds (MMFs), also accelerated. This is no surprise, as MMFs currently carry a much higher return (yield/interest) than deposits. In March [2023], the deposit-outflow accelerated into a rout, and currently [I.E., IN MAY 2023] the outflow of deposits is almost $1 trillion (year-over-year), with the vast majority (over $600 billion) exiting from the 25 largest [U.S.] banks. It should be noted that the U.S. has never seen such an 'deposit-exodus' since the records began (in January 1974).

While banks can and will balance the outflow of deposits with other means, like borrowing from interbank markets, such measures are only a temporary fix. This implies that as long as deposits keep flowing out of banks, their balance sheet will shrink, which will, in turn, constrain their lending. With the current outflows, the U.S. is surely already experiencing a credit contraction. However, there's more. Again, from our May 2023 Deprcon Outlook:

> Demand for C&I [commercial and industrial] loans is clearly in a state of collapse, something which previously has not been seen outside a recession or immediately after it (like in late 1991). The decline started during the last quarter [of 2022], with a drastic 21% drop of loan demand by small firms. Currently [i.e., May 2023] the reported declines are over 50% in loan demand from both small and large firms. This corresponds to the declines seen in the first quarter of 2009, that is, right after the deepest phase of the Great Financial Crisis.

This quite straightforwardly implies that the United States is already rather deep into a credit contraction, which is also the harbinger of recession. This is because a credit contraction leads to diminished economic activity due to lower levels of investments and consumption, which creates a recession, which leads to a rapid growth of loan delinquencies and defaults. This will lead to rapidly growing loan losses, causing banks to tighten lending even further. This will hurt consumption and investments, and the cycle repeats, which causes an actual credit crunch.

Like it or not, both the United States and China must accept the risks and vulnerabilities of remaining connected to each other. Washington and Beijing will compete robustly within the single system of which they are both vital parts. And the dynamics of competition within this system are fundamentally different from the competition between systems that existed during the Cold War.

This time around, however, loans losses are likely to hasten the deposit outflow from banks, possibly turning into a nationwide rout. This would lead to another and more severe wave of bank runs, which would push the U.S. into an outright *credit depression*, where the flow of credit would seize altogether.

Scenarios, Implications

There are three basic scenarios for the ongoing banking crisis, each with its own outcome. These range from a mild recession to a repetition of the Great Depression. Crisis forecasting relies on both narratives and models, and here I present just the narratives (the models, and the methodology informing them, are proprietary).

I consider that obtaining the "best case" scenario (mild recession) requires some draconian actions from U.S. authorities. Essentially for this scenario to manifest itself, the authorities would need to stop the bank runs in their tracks as soon as the recession (most

likely) re-ignites them. It is very likely that this would require the (unprecedented) imposition of a nationwide full-deposit coverage and/or a mandatory set of deposit withdrawal restrictions. Central bank digital currencies can play a role in this (more on this below). In addition, the U.S. government would need to issue a heavy fiscal stimulus package in the range of trillions of dollars and the Federal Reserve would need to enact another Quantitative Easing (QE) program to support the financial markets. If done right and quickly, these measures should ensure that the U.S. would experience only a mild recession. However, the U.S. banking system would effectively become nationalized in the process, with likely serious long-term consequences.

In the second scenario, the U.S. would face a nationwide bank run. Several hundreds of banks would fail, but the authorities would intervene in such a way as to clear the banking sector with takeovers, forced mergers, and re-capitalization. The Federal Reserve would start to aggressively cut interest rates, which would help the economy. The Fed would also restart QE and possibly create new lending programs to help the banks. These could possibly also include a coordinated program with Fannie Mae and Freddie Mac to securitize mortgage loans of banks and to either sell them or use them as collateral in the BTFP. The U.S. would, most likely, experience a somewhat deep recession, but avoid a depression. However, unemployment would rise notably, and the availability of credit would become heavily restricted.

In the third scenario, the U.S. authorities would be unsuccessful in stemming the banking panic. Loans losses, illiquidity, and massive deposit outflows would lead to a failure of thousands of banks, which would cause a credit depression. Mass bankruptcies, skyrocketing unemployment, and social unrest would follow. The U.S. could even default on its sovereign debt. Global financial markets would crash, the flow of global credit would cease, the Eurozone would fracture, pushing the world to a never-before-seen currency crisis. Global freight would grind to a halt, because banks could not underwrite and provide funding for freight agreements. Governments would need to step in, but many governments would default to their high debt loads. Global trade would collapse, taking the world economy with it. Another Great Depression (maybe even the 'Greatest Depression') would invariably emerge.

Currently, I consider the middle, or second, scenario to be the most likely one. This is because it would follow the "bail-in" principle, whereby banks will not be saved in their totality, but just some part of the depositors (the reasoning here is political and has to do with domestic U.S. politics). For similar reasons, the third scenario—i.e., another Great Depression—is, in my view, the second-most likely scenario, because bank runs may easily escalate in the current environment. Thus, we may end up seeing all three scenarios coming to pass. This could mean, for instance, that first there will be some bank failures, which U.S. officials will allow, and then this would lead to nationwide bank runs, which would crush the economy, and eventually lead to the imposition of some form of financial lockdown, including deposit withdrawal limits and extended bank holidays.

I have to be very clear and direct: if the euro breaks up, it will represent the biggest currency crisis the world has ever seen. It would also lead to a deluge of sovereign defaults, which would massively worsen the banking crisis.

It should be noted that, if the crisis in the U.S. follows one of the two latter, more sinister forms, then the European banking sector would likely have its day of reckoning, too. If this were to come to pass, the European Union would be faced with only two options concerning its common currency, the euro: either it fractures, or the EU moves into full federalization mode. The first one would include several countries exiting the common currency or its full dismantling. The second one implies the imposed establishment of what would effectually be a Eurozone Finance Ministry and corresponding "federal" EU taxation powers, including a massive new bond issuance (in the range of 2-4 trillion euros). Naturally, this topic would require its own article, but below I open the issue a bit more. At present, it is also nearly impossible to assess which of these is more likely occur, but some informed forecasting suggests that European leaders will at least first push for full federalization, because there is simply too much political capital tied to the perpetuation of the euro. It's good also to note that the Eurozone is already in a technical recession, as it has seen two consecutive negative GDP growth prints.

Crisis Mitigation Beyond the West

I have to be very clear and direct: if the euro breaks up, it will represent the biggest currency crisis the world has ever seen. It would also lead to a deluge of sovereign defaults, which would massively worsen the banking crisis. There would be a complete redenomination of all existing financial contracts—including debt, stocks, and derivatives—in new/old national currencies, which could take years. Even were the euro to fracture partially, with some countries exiting the Eurozone whilst others would opt to stay, it would still send shockwaves across the banking sector in the EU and thus the world, as Europe is home to the highest concentration of what are called global systemically important banks (G-SIBs).

If the euro fractures, there would also likely be a "mad scramble" towards any major currencies considered even remotely safe, including the U.S. dollar (this may occur regardless of whether there is a serious banking crisis in the U.S.) and the Chinese Renminbi (notwithstanding that its very high debt burden also makes it vulnerable to any detrimental economic shocks). It is also likely that the IMF would quickly set up a new global currency consisting of basket of currencies, plans for which have already been drawn through, for instance the authorization of Special Drawing Rights (SDRs)—an international asset whose value is defined as a basket of currencies. If the euro fractures and the U.S. faces an existential banking crisis, the newly formed BRICS currency may also see increased demand. It is also very likely that the deepening banking crisis in the U.S. described above would hasten the de-dollarization trend, even though demand for the U.S. dollar may even rise in the immediate aftermath, due to its safe haven stature.

However, it should be remembered that a deep banking crisis, like in 2008, tends to go hand-in-hand with a frantic run away from all assets and currencies considered even remotely risky. In the worst-case scenario described above (i.e., the onset of a second Great Depression) all countries that have seen speculative capital inflows (to any industry) should be prepared to rapidly close their capital account—i.e., to impose capital controls and to peg their currencies to either a basket of commodities or to gold. Later they could consider whether to peg their respective currencies in some of new currency baskets, or let them simply float.

I am a big proponent of the latter, because Finland, for example, has seen its most prosperous years when the country let the value of its currency be determined by the markets.

Countries concentrated in energy and mineral production, like Azerbaijan, are more shielded than others, but if such countries have seen "hot money" inflows, they need to be prepared for their sudden reversal, i.e., a *sudden stop*. If this commences, capital controls would also need to be enacted quickly.

Meddlesome Central Bankers

During the past four years, authorities have shown a deepening commitment to stop each crisis through a wide variety of means. This may give us hints about the path they will choose to pursue in the coming escalation of the ongoing banking crisis.

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From all the means used to sustain the economy and financial markets, central banks' QE programs, first launched by the Federal Reserve to prop up financial markets in 2008 and 2009, have become pervasive. The European Central Bank (ECB) launched its first full QE program, called the Asset Purchase Program (APP) in March 2015 (the announcement was made in October 2014). Before that, the ECB had conducted some large-scale buying experiments that consisted in buying Eurozone government bonds through the Securities Markets Programme (SMP). In it, the ECB bought sovereign bonds of those members of the Eurozone whose bond markets had started to "malfunction." In actuality, the ECB's policy was an effort to stop the fragmentation of the Eurozone's sovereign debt markets, which could have forced countries to exit the euro. The program was not enough to achieve the intended result, and so in August 2012 the ECB launched its Outright Monetary Transactions program (OMT). Its publication came after the ECB president Mario Draghi promised publicly that the ECB would do "whatever it takes" to sustain the euro.

His announcement effectively ended the European "debt" crisis, and thus the Great Financial Crisis. Everything would have been fine had the ECB restricted its meddling to the bond markets in this context; alas, it did not.

The ECB's QE program pushed the yields of Eurozone sovereign bonds unnaturally low which, while sustaining the integrity of the currency union, removed all fiscal constraints from Eurozone governments. This naturally led peripheral Eurozone governments to become even more indebted. While the ECB was fully engaged in saving the Eurozone, the Federal Reserve became a savior of financial markets.

In late 2018, led by the Fed, central bankers made their first effort to diminish the global central bank balance sheet—that is, they enacted the world's first-ever quantitative tightening program (QT). However, almost immediately, in October 2018, asset markets started to drift downwards, which accelerated into a rout in December 2018. Thus, on 4 January 2019, due to the threat of an outright collapse of U.S. credit markets, Fed Chairman Jerome Powell pivoted away from the previous commitment of the Federal Open Market Committee (FOMC) to several interest rate rises and automated balance sheet run-off. In a series of speeches given by Fed officials between January and March 2019, the Federal Reserve made a complete U-turn from its earlier policy of several interest rate rises in 2019 to possible cuts and ending the balance sheet normalization program prematurely. Yet, QT continued for a while longer.

On 17 September 2019, interest rates spiked in the U.S. repurchase (repo) markets, when major banks suddenly refused to lend to counterparties. Repo markets are a crucial piece of America's financial plumbing, as they fulfill the daily liquidity needs of vast number of financial institutions. If they would to "clog up," the repercussions would be felt immediately. To "unclog" the markets, the Fed started its repo operations on the following day (18 September 2019), and on 16 October 2019, it started to buy U.S. Treasury bills at the rate of $60 billion per month to ease the strains in the financial markets. The first effort of global QT thus ended in a near-catastrophe.

In March 2020, COVID-19 crashed the markets. On 16 March 2020, the volatility index of U.S. stock markets reached 82.69 (the highest on record), and the Dow Jones Industrial Average plunged by 2,997 points, or 12.9%—the worst one-day point drop on record. The

Fed responded with several support programs. At the end of May 2020, the Fed backstopped "repo" and U.S. Treasury markets, intervened in corporate commercial-paper and municipal bond markets and short-term money-markets, and bought corporate bond ETFs, including some speculative-grade ("junk") corporate debt. It also launched a "Main Street Lending" program that provided loans to middle-market businesses. Effectively, come June 2020, the Fed had become the financial market of the United States, while it balance sheet had ballooned from around $4.1 trillion to over $7 trillion in just three months!

The second attempt to diminish the global central bank balance sheet commenced in April 2022, which led to the near-collapse of what are called liability-driven investment funds (LDIs), closely tied to British pension funds, in September 2022. LDIs, and thus British pension funds, were at risk of a collapse because the prices of gilts had crashed due to the aggressive rate hikes and gilt sales by the Bank of England (BoE). This forced the BoE to step back into the gilt markets. Since October 2022, the global central bank balance sheet has decreased only marginally.

The question now becomes what the central banks may be willing to do when faced with a deep enough banking crisis. The answer may lie in so-called central bank digital currencies (CBDCs).

The question now becomes what the central banks may be willing to do when faced with a deep enough banking crisis. The answer may lie in so-called central bank digital currencies (CBDCs).

CBDC Domination?

Central bank money is at the core of modern financial systems. It is comprised of physical cash in circulation and central bank reserves—i.e., the deposits of financial institutions in the central bank. A CBDC would create another layer of central bank money. In its strictest form, a CBDC is a digital payment instrument that is denominated in the national unit of account, or currency, which is also a direct liability of the central bank. Essentially, a CBDC can take two forms. It can be a central bank issued digital currency (retail CBDC) or a central

bank-backed digital currency now called a 'synthetic' CBDC (sCBDC).

A CBDC is 'synthetic' when it is backed by deposits (reserves) at the central bank. Another name for this is *wholesale* CBDC. The basic mechanism of a sCBDC is when private sector payment service providers issue liabilities matched by funds (reserves) held at the central bank. The private issuers of digital currencies would act as intermediaries between the central bank and end users like consumers and firms. Regardless of whether the liabilities of the providers would be fully matched by funds held at the central bank, the end users would *not* hold a claim on the central bank.

A CBDC is considered to be *retail*, when it is a widely acceptable digital form of fiat money that can act as a legal tender, or not; it can either be account- or token-based. The former would be considered intangible property and it would involve the transfer of a claim between accounts and would resemble a bank account transfer, with the distinction that all accounts would remain within the central bank. In the latter there would be a transfer of a token between wallets. Settling transactions using a token-CBDC (a tangible property) would require external verification of the tokens, which would imply that anonymity, like with transfers in cash, could not be guaranteed. In each case, the holder of a CBDC would have a claim over the central bank. Another way of putting this is that we all could have an account at the central bank.

The instauration of both systems—i.e., wholesale and a retail CBDC—would alter the banking system in a radical way. First, fractional reserve banks, where banks hold only fraction of their liabilities and assets are covered by capital or CB reserves, would come under pressure. Banks would be likely to lose some customers, pushing them to seek more wholesale funding, such as funding from commercial credit markets like state and local municipalities and brokered deposits. Banks could be forced to raise interest rates on deposits, which would reduce their profits.

A retail CBDC would be very detrimental for the banking system. This is because it is the role of a central bank to monitor and regulate banks and to act as a lender of last resort in banking panics and runs. With the issuance of a CBDC, a central bank would become a competitor of commercial banks. It is hard not to avoid the conclusion that this would corrupt the whole financial system. Commercial banks would be forced to compete with the more secure CBDC with higher interest rates, and even if the CBDC would be non-interest bearing, it would still offer safety (especially in a zero or negative interest rate environment). Banks would thus compete against the CBDC by issuing higher deposit rates, while they would be at the mercy of central bankers concerning regulation and guidelines. Serious questions can be raised whether central bankers could act in an even-handed way in this setup.

However, the biggest problems would arise in a banking crisis. Let's assume that a country would enact sCBDCs as a countermeasure. Because their holders would be fully covered by central bank reserves (unlike fractional reserve banks), the existence of sCBDCs could easily worsen a potential run on banks, thus making a banking crisis worse. Essentially, there would be only one way to fix this, that is, to move to the retail CBDC.

If the central bank has the backing of a fiscal authority, as generally is the case, it can provide banking services—deposits—backed by the taxing power of a government. In this situation, with the retail CBDC, the central bank would offer superior deposit safety in a banking crisis. Thus, if consumers believed that a commercial bank run is imminent, depositors would inevitably move their deposits to the safety of a central bank. While the central bank would probably lend them back to commercial banks (because otherwise the whole banking system would simply collapse), it would effectively gain control over lending of the commercial banks. In that case, commercial banks would turn into mere retail branches of the central bank.

A flight from commercial banks to the safety of the CBDC could also be countered only with strict deposit limits to the central bank. It is highly questionable whether such limits could be maintained in a banking crisis as that same crisis would, almost certainly, foster political pressure to open the balance sheet of the central bank with a CBDC to all.

Alas, in the worst-case scenario outlined above, the introduction of CBDCs would lead to a situation in which the banking system would effectually consist of just one bank: the central bank. The extremely serious implications of such a system need not to be emphasized further. Even in their 'mildest' form, the introduction of CBDCs would pose an existential threat to commercial banks and thus on financial freedom.

Conclusions

Rudiger Dornbusch (1942-2002) was a renowned international macroeconomist, a demanding teacher at MIT, an intimidating public speaker (I hear), and one of the world's leading experts on crisis management. One of his most famous quotes, in addition to this essay's epigraph, considers the handling of the 1998 Brazilian economic crisis in Brazil: "When they [the Brazilians] call 1-800-BAILOUT, just let it ring. Say our operators are busy."

Dornbusch was an unyielding opponent of governments meddling with the economy, but he did support the establishment of supranational entities to handle crises. I have become rather skeptical towards global governance organizations of late, and have recommended that countries stay out of IMF programs, and so on. However, this would require that a country's economy be made "crisis proof" before the crisis hits. Essentially, this implies low indebtedness of households, corporations, and the government, limited foreign financial exposure, sufficient gold reserves in the central bank, and prudent oversight of the banking sector. Many countries have not done this, which means that they are likely to be forced to ask for IMF support in the near future.

The coming, or, more precisely, the ongoing crisis that will most likely re-appear shortly in a more destructive form is likely to reshape the global economic structures in a dramatic way. The biggest losers are likely to be some of the world's largest economies: the U.S., the EU, and possibly also China. Their economic "engines" have been pushed to their respective limits, and some form of breaking up is inevitable. However, what they may lose will become available for other countries to gain.

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When a financial system crumbles, people and countries resort to necessities. Survival, quite naturally, becomes the main issue. In such a situation, resource rich nations like Azerbaijan have a natural upper hand. Playing it correctly requires that such countries take measures to prevent their economies from being pulled under by those that are in the process of failing. Thus, when the crisis re-emerges, it will be imperative for such countries to cut without hesitation the toxic aspects of financial ties with the U.S., the EU, and possibly even China.

This will require the formulation of prudent national strategies to manage, *first*, the possible outflow of "hot money" (mostly through capital controls), *second*, currency and foreign exchange issues (especially if the EU is sucked into an epic currency crisis), and *third*, the country's positioning in the context of the re-forming of global economic structures. Grouping with like-minded countries would be likely to establish important synergies, particularly if the Western bloc took what would likely represent a Dystopian turn through the issuance of CBDCs.

Major crises have always represented opportunities for the brave-hearted, the prudent, and the prepared. If the ongoing banking crisis takes the sort of sinister turn outlined in this essay, then it will come to be seen as biggest reshuffling of the global economic and political order since the 'Great War' and the 1930s. This would, in turn, form the basis for the execution of a truly strategic opportunity for those states that provide global economic necessities like energy, minerals, and food to fill in the void, become economic safe havens, and secure sustainable prosperity for their respective populations. The time to start planning for such a contingency is now. BD