Macrothink Institute™

International Finance and Banking
ISSN 2374-2089
2022, Vol. 9, No. 1

Bank Reactions to the COVID-19 Shock: A Systematic Literature Review and Lessons from Hong Kong SAR Commercial Banks

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Received: May 2, 2022 Accepted: June 10, 2022 Published: June 22, 2022

doi:10.5296/ifb.v9i1.19849 URL: http://dx.doi.org/10.5296/ifb.v9i1.19849

Abstract

This article sheds light on the diverse and significant impact of the COVID-19 crisis on the global financial system, with a special emphasis on banks' reactions to the worldwide shock caused by the COVID-19 pandemic. This paper fills a gap in the literature by conducting a systematic critical literature review of the various bank reactions using a Search, Appraisal, Synthesis, and Analysis (SALSA) framework. It shifts the perspective from a passive role of banks to an active, even proactive role of banks during the crisis. The analysis results show that financial supervisors should closely assess the global banking sector's sustainability and that policies should focus on improving bank lending conditions, which is helpful both for the stability of banks under challenging situations and for customers. Lessons from the largest commercial banks in Hong Kong SAR include the fact that adaptation, as well as positive transformation, have been some of the reactions of Hong Kong banks to the COVID-19 crisis. Finally, the findings of the study suggest many research avenues for mitigating the impact of future macroeconomic shocks on the banking sector.

Keywords: COVID-19, banking, macroeconomic shock, crisis, reaction

1. Introduction

1.1 Introduce the Problem

Analyzing bank reactions during the COVID-19 pandemic, which was a severe shock for the banking system as well as other sectors of business, is critical because appropriate policy measures may be implemented by recognizing patterns in bank reactions and the impacts they create. Furthermore, analyzing bank reactions to the COVID-19 epidemic helps bank directors and policymakers to learn some critical lessons and better plan for future similar events.

While most studies now focus on the banking sector's performance during the COVID-19 pandemic-induced crisis (Demirgüç-Kunt et al., 2021; Kozak, 2021), there is a gap in the literature regarding banks' reactions to the COVID-19 pandemic as a global shock. Certain academics consider it a macroeconomic shock in and of itself (Ludvigson et al., 2020), however the majority of researchers feel COVID-19 had a deep economic, political, social, and cultural influence that resulted in some macroeconomic imbalances as a subsequent consequence (Roy, 2020).

Conducting a critical literature analysis based on current theoretical and empirical research on banks' policy responses to COVID-19 helps to put into context the different steps adopted by banks throughout the world to deal with the consequences of the pandemic's macroeconomic shock.

1.2 Classification of Bank Reactions under Unfavourable Economic Circumstances

Bank reactions have been described and categorised using a variety of methodologies and viewpoints; as a result, the present literature is not consistent in terms of what bank reactions signify. Based on the assumption that banks want to adapt to changes in their economic environment in the best way possible (e.g., interest rate and credit risk shocks, funding disruptions, etc.), bank reactions translate into a risk-return optimal program in which banks strive for a specific asset composition to maximize risk-adjusted returns while keeping regulatory capital and liquidity limits in mind (Haaj, 2013). Without claiming to be exhaustive, the three tactics below highlight the three primary approaches used by central banks in a challenging economic scenario.

1.2.1 Strategic and Optimizing Actions

Bank asset structure optimization is a difficult task since it is a multi-factor and multi-objective challenge. According to the study, banks are not only heavily dependent on the global economic climate, but their behavior is also impacted by the regulatory framework, notably capital and liquidity constraints, and is sensitive to a number of agency difficulties (Hałaj, 2013). The latter is related to the conflicting interests of bank creditors and owners. Furthermore, banks are entities with huge obligations, and the government insures a portion of their debt. A bank behavior model must be comprehensive enough to allow for the examination of varied macro-financial conditions without losing computational tractability for stress testing applications (Hałaj, 2013).

1.2.2 Conservative Approach

In response to unfavorable economic conditions, commercial banks often take a cautious stance and follow the central bank's lead. The European Central Bank (ECB), for example, has advised banks to adopt conservative distribution methods and use capital to secure the economy's long-term financing. According to the European Banking Authority (EBA, 2020), European Union banks could continue to provide assistance to businesses while maintaining high levels of capitalisation. However, given that the COVID-19 crisis and the uncertainty surrounding its impact on the economy are likely to persist, and that further deterioration of asset quality metrics is possible in the coming quarters, the EBA urges banks to avoid distributing capital outside the banking system when considering dividends and other distribution policies, including share buybacks, unless extreme caution is exercised (EBA, 2020).

The continued implementation of conservative allocation strategies is crucial to ensure the retention of strong capital levels within the European banking industry and serves as the foundation for providing necessary economic assistance (EBA, 2020). The EBA also considers that it is vital to ensure effective and prudent capital allocation within banking groups, which should be regulated by responsible authorities. Capital distributions within a banking group must meet the requirement to support local and bigger European economies, as well as to ensure the smooth functioning of the Single Market, which is especially vital during a crisis.

1.2.3 Institutional Support

As demonstrated by Barua and Barua (2020), the macroeconomic impact of the COVID-19 pandemic on the banking system resulted in complex interactions between several effects, including loan defaults, whether temporary or permanent, lower savings and increased withdrawals, and decreased demand for loan and non-loan services. As a result of these effects, a second wave of deepening banking sector effects comprised lower interest and non-interest revenue, more non-performing loans, a shock to capital adequacy, and a decline in asset value for commercial banks (Barua & Barua, 2020).

To aid banks and maintain financial stability, governments throughout the globe have established loan guarantees that would help banks in all regions minimize the decrease in CET1 capital (OECD, 2021), fiscal support that grants tax relief on loans or loan postponement, and loan deferral (Feldman & Schmidt, 2021). Other agencies, including as the World Bank and central banks, have also launched assistance initiatives to mitigate the consequences of the COVID-19 epidemic on the banking sector. Commercial banks have drawn this assistance and are putting it into action as soon as possible in order to stabilize their operations.

1.3 Mapping the Extant Research on Banking Reactions to COVID-19 Shocks

Bongini et al. (2019) examined bank responses to macroeconomic shocks by concentrating on bank profitability, especially 'profitability shock' defined as "a rapid and significant decrease in profitability" and "profitability recovery" defined as "returning to the prior level"

(p. 233). Using a sample of 109 European financial enterprises from 2006 to 2016, the authors examine the fundamental determinants of these profitability shocks as well as the qualities that allow banks to regain profitability and avoid a more severe crisis. According to the findings of the Bongini et al. (2019) study, the profitability issue stems from the lending activity and the degradation of the loan portfolio as a result of a large risk appetite that is not balanced by suitable liabilities and capital requirements. Furthermore, the profitability problem is caused by banks that recover from the profit shock and execute a more restrictive lending policy, reducing their lending offer and more effectively resolving the nonperforming loans (NPL) issue (Bongini et al., 2019).

The literature has argued whether "black swans" have a global impact (Wang et al., 2019). According to Goodell (2020), COVID-19 is a worldwide phenomenon in and of itself. We must also assess if COVID-19-scale incidents are insurable. Another point of contention appears to be whether COVID-19 should be considered as a black swan event or an unexpected occurrence with devastating consequences. According to Goodell (2020), the evident fact is the former. When one considers the plethora of scholarly studies focusing on pandemics and anticipating large economic consequences as a result of pandemics, as well as other real-world outbreaks and health catastrophes that may have become pandemics, it should be considered as anything other than absolutely unprecedented.

Wang et al. (2019) discovered that the six rounds of Fed interest rate hikes have an impact on the Tokyo Commodity Exchange (TOCOM) gold futures price, but to varying degrees depending on the era. Wang et al. (2019) investigate the relationship between the Federal Reserve's monetary policy and the price of gold futures in the context of developing markets by using a time series dataset of Fed rates derived from US Fed reserves and the TOCOM gold futures price throughout the six interest rate hike cycles from 1983 to 2018.

Pandemics, such as COVID-19, are undeniably predicted; consequently, the fact that such disasters are insurable is immensely beneficial. Tamura and Sawada (2009) study the possibilities of such insurance in the context of avian flu outbreaks in Vietnam. The authors discovered that informal credit transactions were crucial in supporting HPAI patients in managing the unanticipated negative asset shock produced by the disease. Furthermore, our data suggest that the informal and/or formal insurance system against an unexpected occurrence has improved over time (Tamura & Sawada, 2009).

However, such insurance is often only available to those who are financially stable, at least on a micro-scale. The bottom of the hierarchy is likely to go unnoticed. According to Sawada and Shimizutani (2008), during extreme crises, persons with personal collateral recover financially faster than those without collateral. Sawada and Shimizutani (2008) used a unique household data set to investigate the coping strategies used by victims of the Great Hanshin-Awaji (Kobe) earthquake in 1995, finding that households with a significant volume of collateralizable assets prior to the disaster and who were exempt from a binding borrowing restriction were able to maintain their consumption rates by borrowing. Households that were subject to a rigorous borrowing restriction prior to the disaster, on the other hand, were unable to borrow to compensate for the earthquake's losses. However, depending on the

extent of the devastation, both sorts of households relied on private transfers (Sawada & Shimizutani, 2008).

1.4 Hypotheses and Their Correspondence to Research Design

The premise of this study is that banks' reactions to the COVID-19 shock varied across nations because banks in various countries have chosen different measures to shield themselves from the crisis depending on the country's pre-existing vulnerabilities and idiosyncrasies. Another idea is that bank reactions have varied based on the time of adoption and the appearance of the pandemic at the time, as measured by the number of new cases per day or as 10-day or 14-day averages, and the number of fatalities caused by COVID-19 infection. The literature evaluation undertaken in this research enables the verification of these assumptions by using a systematic method and analyzing credible data based on specific settings such as geographies, political regimes, timeframes, and so on, as well as discovering trends.

2. Method

The mixed-method systematic review approach was used for this research because it analyzes, compares, and contrasts data from quantitative and qualitative investigations (Grant & Booth, 2009). This is of high research value because the topic is still new, and while there are some interesting findings in the literature on bank reactions in various countries, this author believes that findings are disparate and that it is more valuable to systematically analyze existing studies to create a research foundation and identify future research paths than to replicate previously tested quantitative methods and add to the current narrow and context-specific outcomes.

Following exploratory inquiries, the vocabulary associated with review and synthesis literature was examined (literary warrant). To explore the various review types, a fundamental analytical framework known as Search, Appraisal, Synthesis, and Analysis (SALSA) was used, which was based on Grant and Booth's approach (2009).

Following the SALSA method, a quantitative analysis of the largest commercial banks in Hong Kong SAR contributed to the analysis of banks' reactions to the COVID-19 pandemic and offer some lessons from the transformation that took place with banks in Hong Kong. Key indicators included cost-to-income ratio, which reflects the focus on cost management, the number of loans and advances offered by banks, which showed the ability of banks to serve their lending activity while fulfilling their working capital requirements, and impaired loan ratio, which is an indicator of credit quality. These have been examined during 2019 and 2020, corresponding to the period before and during the COVID-19 pandemic.

2.1 Sampling Procedures

Following the SALSA method's search stage, a total of 6,401 journal articles and institutional reports were examined for this literature review. Only 12 articles were included in the evaluation, while the rest 6,389 were removed because they were unrelated to the COVID-19 problem or did not analyze the macroeconomic impact of the COVID-19 pandemic on bank

reactions.

The SALSA method's searching stage involved running a search on Google scholar and online libraries such as Wiley Online Library, Z Library, and WorldCat, among others, using the following syntax: "Bank responses to COVID-19." Duplicate results from each of the four sources have been removed. Only those papers that were judged relevant to the issue under examination were chosen as part of the assessment step. Elimination criteria, for example, targeted articles that did not refer to COVID-19 but instead to other shocks, such as the avian flu in Vietnam (Tamura & Sawada, 2009), as well as articles that did not discuss bank reactions per se but instead examined other aspects of the COVID-19 impact on the banking system. For example, papers describing consumer credit behavior during the pandemic (Kubota et al., 2021) or the business sector's response to cash flow shifts in terms of long-term debt (Almeida, 2021) were removed during the assessment stage. The selection criteria for the search and assessment stages were based on prospective sources of data and information on bank reactions to the COVID-19 shock.

Table 1 depicts the SALSA approach in action, with each database or source of articles analyzed. As part of the assessment, the original number of articles, which were then detailed during the search step, was lowered. For example, because the Wiley Online Library is so large, two additional filters were applied as part of the search, including the kind of publication, which was chosen as journals, and the duration for the articles, which was confined to the last two years corresponding to the epidemic. Only two items from the Wiley Online Library were chosen as part of the assessment step and judged relevant for the investigated topic. This is due to the fact that the other findings were largely from medical journals or were not directly related to the topic.

The synthesis step, as depicted in the appropriate column of Table 1, corresponds to the research approach used in the various studies. The third stage, dedicated to analysis, consisted of reviewing each article's results. The findings of the analysis will be provided in the results section, and a more in-depth discussion of these findings will be offered in the final discussion portion of this article.

2.2 Research Design

The SALSA systematic literature review focuses on an essential feature of this type of systematic literature review. Under ideal conditions, conceptual innovation arises through a process of transformation or consolidation, with each successive iteration expanding on the work of the predecessors (Grant & Booth, 2009). A critical review enables the researcher to take ownership of the preceding body of work and judge what is worthwhile in it. It may also make an attempt to reconcile different schools of thought. As such, it might serve as a jumping-off point for a transitional period of concept generation and subsequent evaluation (Grant & Booth, 2009).

Table 1. SALSA method overview

Database (Source)	*No. of included studies*	***Search***	***Appraisal***	***Synthesis***	***Analysis***
Google Scholar	3,922	All articles, books, eBooks, reports and other documents on the syntax "Bank reactions to COVID-19 shock".	5 articles are directly relevant for the topic of bank reactions to the COVID-19 shock. All articles that focused on the impact of COVID-19 on the banking sector with no view of the banks' reactions have been eliminated.	Theoretical, narrative and empirical studies	Conceptual and descriptive empirical findings on study events of bank reactions to the COVID-19 crisis.
Wiley Online Library	1,752	All journal articles between 2020 and 2022	2 articles on the effect of COVID-19 on the banking system and some reactions.	Narrative, empirical studies	Descriptive statistics of bank reactions to COVID-19 shock.
WorldCat	722	eBooks and journal articles on the sitax "bank reactions COVID-19".	3 eBooks and articles directly relevant to the topic.	Empirical, narrative	Analysis of banking policies and empirical studies based on event study or regression.
Z Library	5	All articles are based on the search of keywords "banks" and "COVID-19".	2 articles on the response of commercial banks to the COVID-19 crisis.	Empirical	Descriptive statistics of bank reactions to COVID-19 and critical policy analysis of the ECB.

Note. Some other databases and online libraries have also been considered but were eliminated at the search stage as they did not yield any results on the topic (i.e., CEEOL, Open Library, etc.).

3. Results

3.1 Mapping the Main Outcomes of Bank Reactions to the COVID-19 Shock

Following the SALSA technique, after the early steps of search, evaluation, and synthesis, when papers and reports on the topic of bank reactions to the COVID-19 shock were chosen, the last step of the study comprises an assessment of the findings in the selected studies, as shown in Table 2. It is critical to duplicate the findings of all the final list of articles, on the one hand since there are few articles, and on the other hand because it provides an in-depth look into the many elements of bank reactions to the shock.

Table 2. Mapping of the analysis results and implications

Study	*Method*	*Outcome*
1. Demirgüç-Kunt et al. (2021)	The event research approach is used to evaluate the impact of policy announcements on bank stock returns.	Liquidity support, borrower assistance programs, and quantitative stimulus all contributed to mitigating the crisis's negative impacts, albeit their success varied widely among institutions and countries. Conversely, countercyclical prudential actions resulted in excess returns in bank stocks, showing that markets have priced in the negative risks associated with these policies.
2. Kozak (2021)	Stress testing to assess the value of NPL development over the next year that will result in a failure to meet regulatory capital standards in domestic businesses and individual bank groupings.	Despite a 12% increase in NPLs, CESE banks were well-financed and able to fulfill capital requirements. Domestic banking sector resilience varies by country, although it is higher in non-EU countries. Smaller private banks exhibit a greater ability to maintain the appropriate level of equity, but there is a risk that they may postpone the time of insuring credit risk and increase lending to lower the NPL percentage. Larger banks are more profitable during times of crisis.
3. Siregar et al. (2021)	In Indonesia, bank balance sheets were surveyed and subjected to stress testing.	A deterioration of corporate balance sheets may demand government intervention to prevent liquidity concerns from becoming solvency issues. While banks' capital balances remain adequate, loan quality deterioration, which reflects real-world circumstances, is worse than it appears. The most recent stress testing of the banking industry reveals possible flaws.
4. Barua and Barua (2021)	Using a state-designed stress testing model, the research investigates the effects of the COVID-19 outbreak on three particular measurements: value, capital sufficiency, and interest income—under distinct NPL shock scenarios.	All banks are expected to see a drop in risk-weighted asset values, capital adequacy ratios, and interest revenue at both the individual and sector levels. However, estimates show that larger institutions are more vulnerable. If the magnitude of NPL shocks increases, the decline in all three characteristics will grow proportionally. The data also show that a 10% NPL shock may force all banks' capital adequacy to fall below the BASEL-III threshold, whilst a blow of 13% or more may cause it to be zero or negative at the industry level.
5. Goodell (2020)	Critical literature review. A variety of research papers are used to discuss the potential consequences of COVID-19 on the financial system, either directly or indirectly.	An examination of the characteristics of COVID-19, as well as what research indicates about the consequences of other earlier events that, in some ways, mimic COVID-19, alludes to future research possibilities.

6. Beck and Keil (2022)	A quantitative analysis of loan loss provisions and non-performing loans in 2020, as well as their link to bank exposure to lockdown policies.	The economic disruption produced by the COVID-19 breakout and lockdown methods is unlike any other recession or catastrophe in history. For starters, unlike most previous crises, this one is the result of an external public health shock rather than macroeconomic and financial sector mismatches; hence, it is unknown how quickly this shock is reflected in the quality of banks' loan portfolios. Bank lending policy has altered as a result of the COVID-19 epidemic in the sense that central banks have taken strong efforts to encourage banks to continue funding the real economy while also reducing an impending decline in loan performance to some extent. As a result, it is uncertain if banks' reactions in the current crisis will be compared to those in previous crises. While previous data on loan growth was so ambiguous, it now clearly suggests bigger interest spreads, which are linked to decreased borrowers' net worth (and hence collateral value), higher financing costs for banks, and growing uncertainty.
7. Jones (2020)	A critical study of the European Central Bank's policies in the context of the COVID-19 outbreak and subsequent crisis.	Economists at the ECB devised a policy response that was as adaptable as feasible. They increased the amount of the asset-purchase program by €120 billion without dividing it into monthly operations, allowing the ECB to commit as much money as required quickly. Furthermore, the ECB was adamant about obtaining as much as was necessary across national jurisdictions. The ECB displayed a lack of cohesion by failing to put in place the necessary safeguards to prevent the financial market collapse that Europeans experienced between 2009 and 2012. This was due to substantial schisms among European countries.
8. Talbot and Ordonez-Ponce (2020)	Content analysis of 125 documents and 19 actions done by Canadian commercial banks. It was decided to utilize a mix of hierarchical clustering and multidimensional scaling.	Three bank clusters were identified: wide activities, cautious actions, and wait and watch, underlining that while the majority of banks are doing little to help their stakeholders, three of them are actively and steadfastly devoted to their clients and communities in this challenging situation. When it comes to crisis management, the most proactive financial institutions are the ones who take the most dramatic actions. Their dedication is not restricted to their clients; they also contribute to the support of other charitable causes. Banks that have also supported community activities, albeit to a lesser extent than the previous cluster, have acted cautiously. The third sort of 'wait and see' bank is one that lacks a community-focused

		policy. While banks' promises are restricted to financial goods, their newly introduced customer programs during the present financial crisis are among the least accommodating of the firms reviewed here, particularly in terms of loan repayment delay duration.
9. Altavilla et al. (2020)	To identify participants, private data on central bank liquidity operations, high-frequency reactions to monetary policy announcements, and sensitive supervisory information on bank capital requirements are used.	Banks' ability to provide loans would have been considerably affected if pandemic response measures had not reduced financing costs and provided capital relief. The findings also demonstrate that coordinated action by monetary and prudential authorities enhanced the effectiveness of individual actions in maintaining liquidity and helping in the continuance of credit flows to the private sector.
10. Danisman (2021)	Based on 73 publicly traded European banks in 15 industrialized nations, we conducted a regression study of ESG ratings on bank stock returns as a result of the COVID-19 epidemic.	Due to the epidemic's first wave, the COVID-19 pandemic had a negative influence on bank stock returns. During the initial wave of the pandemic, stock returns of banks with higher ESG ratings were more resilient to the disease. When they use a longer-term (February 2020-April 2021), the influence of COVID-19 on ESG ratings becomes insignificant.
11. Demir and Danisman (2021)	The first main wave of COVID-19, which runs from January to May 2020, is represented by a sample of 1,927 publicly listed banks from 110 countries.	Bank stock returns are more resilient to the pandemic when there is more capitalization and deposits, higher diversification, fewer non-performing loans, and larger size. While bank environment and governance ratings have minimal impact, higher corporate social responsibility plan scores exacerbate the negative stock market reaction to COVID-19.
12. Gaa (2020)	Event study for 11 banks in the UK.	Overall, the banking industry has a significant abnormal reaction; however, only bad news events result in significantly negative abnormal returns, whereas good news events do not provide consistent results.

3.2 Lessons from the Commercial Banks in Hong Kong SAR

In Hong Kong SAR, the financial industry, in particular, has fared rather well in the aftermath of the epidemic. Regulatory steps implemented in recent years to strengthen capital strength and liquidity, as well as the overall soundness of banks' balance sheets, have demonstrated that the Hong Kong banking system remains resilient (KPMG, 2021). The report by the consulting firm KPMG did not witness a major increase in credit losses, and there have been no issues arising from dropping asset values that have given rise to misconduct allegations (KPMG, 2021). However, the banking sector's income fell in 2020, owing mostly to declining net interest margins.

Figure 1 below shows how key indicators like cost-to-income ratio, the number of loans and advances offered by banks, and impaired loan ratio evolved between 2019 and 2020.

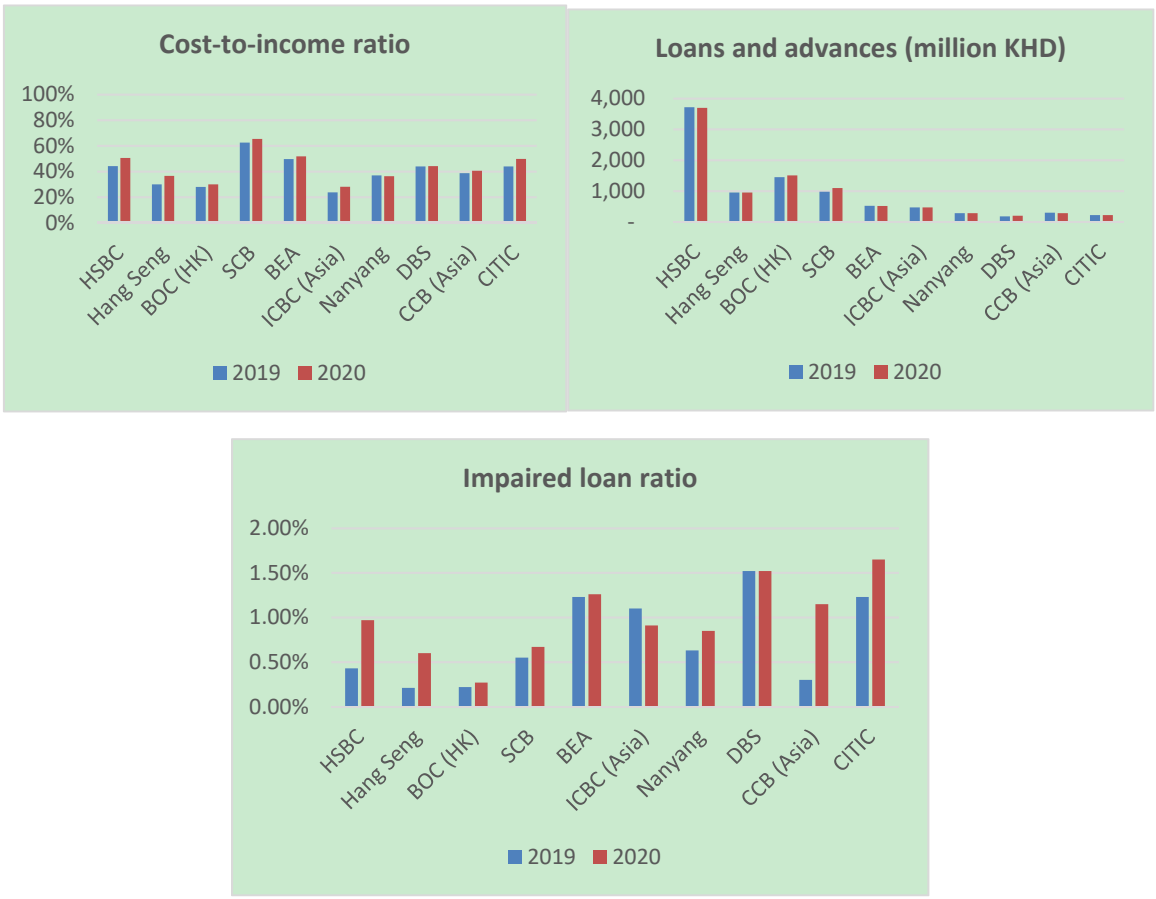

Figure 1. Reaction of Hong Kong banks towards the COVID-19 crisis

Note. Data has been extracted from banks' financial statements by the author.

From the analysis of key metrics in Figure 1, it is evident that, whereas many banks have dedicated several years concentrating on transformation to decrease costs, improve client experience, and better risk management and internal control, COVID-19 has significantly expedited development and implementation. The epidemic has substantially raised awareness among banks of the need of utilizing operational expenses as a critical lever to sustain profitability, particularly in an environment where interest sales growth is expected to remain restrained for the foreseeable future.

4. Discussion and Future Research Agenda

The findings in the literature confirm the hypotheses proposed in this study, based on the data reported above. Bank reactions to the COVID-19 problem have differed slightly among nations, as seen by empirical data from Canada, the United Kingdom, Indonesia, and the United States, among others, however, credit payment and liquidity concerns have been a

recurring theme. The second theory has also been confirmed, since the results of the SALSA approach revealed that the waves of the pandemic correlated in large lines with the waves of policy measures implemented by banks and governments worldwide.

4.1 Theoretical and Practical Implications of the Study

The study's findings provide light on the impact of the COVID-19 epidemic on banks rather than the banks' response in terms of the lending policy.

Table 3. Implications of the studies selected

Study	*Implications*
1. Demirgüç-Kunt et al. (2021)	An important policy concern is the potential impact of countercyclical lending policies on the banking system's future stability, as well as how much capital they have grown since the global financial crisis to allow them to absorb this shock without jeopardizing their resilience.
2. Kozak (2021)	The study's findings are important for studying the CESE banking sector's sustainability during the crisis, and they may be used by financial regulators in the region's countries and banking market specialists.
3. Siregar et al. (2021)	Indonesia might pursue a number of post-pandemic strategies, particularly in the following two years, such as focusing on mitigating the consequences of the COVID-19 pandemic and hastening national economic recovery efforts. Furthermore, in addition to the social safety net program, the government must also prioritize more constructive investments in labor training and infrastructure measures that can support future growth. The increase in health, small and medium-sized businesses, and state-owned enterprises expenditure in 2021, while maintaining the commitment to family safety, is a step on the right path.
4. Barua and Barua (2021)	The research recommends Bangladesh implement swift and innovative policy measures in order to avert a large-scale and contagious banking disaster.
5. Goodell (2020)	Because the study results are primarily empirical, these existing literature insights indicate future research directions.
6. Beck and Keil (2022)	The US government's support for public-private partnerships acted in part as a bailout for the operations of failing banks. Although the data are from the United States, they give useful insights for other industrialized countries in terms of the impact of the pandemic and lockdown measures on financial institutions.
7. Jones (2020)	The question is whether the ECB's attempts will be sufficient to restore market confidence this time. The answer lies partly in accepting that the Italian government lacks the capacity to accept the kind and degree of control necessary to qualify for ECB assistance. The EU nations might bear responsibility for each other's obligations or debts acquired collectively.
8. Talbot & Ordonez-Ponce (2020)	The study's findings are concerning because 40% of Canada's largest banks do very little to support their stakeholders in times of need. As a result, despite financial easing measures implemented by institutions such as The Bank of Canada and the Superintendent of Financial Institutions (Lord & Saad, 2020) and bleak economic forecasts for Canada in the coming months (Fernandes, 2020; Salterio, 2020), most banks are not proactive in meeting the pandemic market's unique challenges.
9. Altavilla et al. (2020)	Further examination is necessary of monetary, macroprudential, and macroprudential policies aimed specifically at improving bank lending circumstances.
10. Danisman (2021)	Significant policy ramifications in rare crisis scenarios.
11. Demir and Danisman (2021)	As the rigour of government policy interventions increases, the pandemic-induced reduction in bank stock prices is relieved, mostly through economic responses such as income support, debt and contract relief, and government budgetary measures.
12. Gaa (2020)	The findings have major policy implications for UK banks and the UK government, not just in terms of policy content, but also in terms of how policies are articulated, as good or bad news.

A key drawback of this study is that, despite a comprehensive search for any relevant materials on the issue of bank reactions to the COVID-19 shock, there may still be papers that were not located and, as a result, were excluded from the analysis. One source of possible bias is that, due to the small number of findings provided, the interpretation may be slanted toward the opinions stated in the 12 articles chosen. This might be solved by redoing the analysis later in order to incorporate additional articles.

4.2 Future Research Paths

Future studies might be aimed at modelling the possible consequences of the recommended policies from the various studies analysed based on the interpretation of findings. Future research could focus on monetary and macroprudential policies that are expressly focused on improving bank lending conditions, while limiting contagion effects is also critical (Barua & Barua, 2021) and managing the effects of the COVID-19 pandemic and benefiting from the lessons learned translated into investments in health and the promotion of the small and medium enterprises sector.

In addition, future research should examine the evolution of commercial banks' different pandemic market methods through time to identify the short-term vs long-term impacts. A defensive posture, for example, may harm public perception of the financial industry (Karidio & Talbot, 2020). Similarly, it is fascinating to examine how banks' responses to a certain occurrence relate to their usual socio-environmental techniques, especially when contrasted to their equivalent ranking positions (Heaps, 2020; Smyth, 2015). Finally, a more thorough examination of their strategies is advised, with a focus on comprehending the role that their organizational structures play in accomplishing their sustainability objectives (Ordonez-Ponce & Clarke, 2020).

Acknowledgements

The author would like to thank the co-author who contributed heavily to the manuscript.

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