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THE COVID-19 PANDEMIC AND THE OPACITY OF FIRMS' AND BANKS' BALANCE SHEETS

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The outbreak of the Covid-19 pandemic has significantly affected information flows in financial intermediation. Non-financial firms were granted exemptions and postponements in reporting obligations and corporate governance requirements; financial intermediaries have been reminded about the flexibility embedded in accounting and loan classifications rules. We review the impact of such increased opacity on financial stability in light of the literature on financial intermediation. We argue that the implications of opacity may differ depending on whether the Covid-19 shock on the economy is temporary or long lasting. When the economy is subject to a massive yet temporary shock, lack of updated information may be beneficial for financial stability. However, if the shock ends up having a long lasting impact, periodical dissemination of additional aggregate statistics on the banking sector may be useful to reduce the large degree of uncertainty surrounding their balance sheets.

1. Introduction and main messages

The outbreak of the Covid-19 pandemic represents an unprecedented shock for the global economy. Following the initial slowdown, containment measures literally put economic activity to a halt in many sectors, leading to a large drop in output driven by a contemporaneous demand and supply shock. In addition, since timing and the speed of recovery are crucially intertwined with the evolution of the pandemic, the size of the shock over the medium and long term is surrounded by an extraordinary degree of uncertainty (Baker et al., 2020).

In this context, the availability of sensible and timely data on the economic environment may be significantly affected. First, **the provision of some categories of data has been reduced or delayed** to relief financial and non-financial firms from the burden of compliance in their reporting obligations in a moment of severe stress to their business continuity. Second, regardless of the relaxation of disclosure and reporting obligations, the stall, if not the paralysis, of a large fraction of economic sectors **has reduced the informational content of certain types of balance sheet indicators**, by weakening their capacity to convey relevant information.

In this note, we concentrate on information flows that are currently impaired in financial intermediation, and discuss whether increased opacity can harm financial stability. Our perspective is not restricted to the immediate aftermath of the crisis outbreak but also to the medium

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term of, say, around one year. First, we describe in which sense the current environment is making banks' balance sheets more opaque, focusing in particular on the representation of banks' credit risk. We identify two channels potentially making banks' loan portfolio less transparent: the exemptions or postponements granted to non-financial firms in reporting obligations and corporate governance requirements, and the flexibility granted to financial intermediaries, in particular in terms of accounting and loan classifications rules. Second, we evaluate the impact of the increased opacity on financial stability in light of the trade-off between transparency and opacity discussed in the economic literature on financial intermediation. The implications differ significantly depending on whether the Covid-19 shock on the economy is transitory or long lasting.

Overall, in the short term and when the economy is subject to a massive yet temporary shock, lack of updated information may be beneficial for financial stability. Insulating banks' balance sheets from data outliers on firm performance and from large negative swings in macroeconomic updates can smooth pro-cyclicality and prevent phenomenon of abrupt deleveraging. However, when opacity is an option and not a mandatory suspension, individual banks' incentives not to disclose information might be undermined by stigma effects. Furthermore, if the possibility to enjoy loan guarantees weakens banks' monitoring activity, firm opacity may create serious obstacles to raise new equity and roll over debt in the medium term, leading to a particularly vulnerable corporate sector in the aftermath of the Covid-19 crisis. For this reason, temporary accounting and legal practices that increased non-financial firms' opacity should not carry on in the medium term, as it would risk worsening the reliability of financial statements and ultimately increase the cost of equity.

Although suspending updated information may be the most appropriate policy action when facing a large but temporary shock, there is a growing consensus that the Covid-19 crisis will have a long lasting impact on the functioning of the economy. When, like at the current juncture, market participants do not seem to question the system-wide resilience of the banking sector, periodical dissemination by the official sector of aggregate statistics on state of affairs of banks may be useful to reduce the large degree of uncertainty surrounding economic developments. Indeed, it may help market participants to incorporate new information into their future economic forecasts, and lead to a reduction in both market pressure on individual intermediaries and the risk of episodes of generalized bank distress. Releasing information on single intermediaries may instead be counterproductive.

While our analysis concentrates on financial stability outcomes, abstracting from considerations on how information gaps can impair statistical sources, it may well be the case that **the loss of information related to the Covid-19 disruptions can be sizable for the statistical community, with potential negative consequences for policymaking** (Biancotti et al., 2020); it is then of the utmost importance that the reliability and integrity of statistical sources be preserved.

The note is organized as follows. Section 2 reviews how the opaqueness of firms' and banks' balance sheet increased after the Covid-19 shock. Section 3 analyzes the trade-off between opacity and transparency in financial intermediation in light of the academic literature on this topic. Section 4 considers the pros and cons of granting flexibility to financial and non-financial companies in terms of accounting and reporting requirements. Section 5 discusses a few relevant issues on information management during the transition to the post-Covid economy.

2. Sources of opaqueness in firms' and banks' balance sheets

Financial intermediation entails a high degree of information asymmetry among a set of different actors, such as borrowers, depositors, equity and bond-holders. During the pandemic the opacity of banks' assets may have further risen for two main reasons: i) delays granted to non-

financial firms in reporting obligations and corporate governance requirements; *ii*) flexibility granted to financial intermediaries in accounting and classification practices.

First, non-financial firms were given some leeway in their periodical disclosure of information via quarterly statements or other company statutory obligations. The spread of the pandemic and the related containment measures generated a halt for many activities and a very severe slowdown for several other sectors. With the aim to ease the operational pressure, many jurisdictions granted a relaxation of the reporting obligations and corporate governance requirements for listed and unlisted companies. Some measures allowed delays in the disclosure of periodical financial statements and the postponement of annual shareholder meetings (Law Decree No. 18 of 2020; Reuters, 2020). The European Securities and Markets Authority (ESMA) and national competent authorities allowed listed firms to delay the publication of their financial reports beyond the statutory deadline by at least one month (ESMA, 2020).

These measures temporarily reduce the flow of information that banks and the market at large receive on companies. In particular, banks can currently rely on periodical updates disclosed by firms less than they usually do. Moreover, postponing shareholder meetings forces firms to delay the dividend policy approval and changes in management team, which in turn make lenders' evaluations on firms' financial structure and corporate governance more difficult. For existing bank clients, less or delayed disclosure implies only a partial loss of information: it is well-known that banks typically enjoy superior information relative to other outside investors thanks to access to the history of their direct relationship with their borrowers.² Nevertheless, for firms relying on multiple bank relationships, which is common in Italy, this advantage is diluted due to the dispersion of information among different lenders. When screening potential new customers, this lack of information for banks is as penalizing as for other investors, because neither banks nor other market participants have access to private information and must both rely on that disclosed by firms.

To a certain extent, also the amendments of bankruptcy laws have led to a rise in the opacity on the quality of borrowers. Indeed several jurisdictions adopted new measures in the field of insolvency for protecting companies that experience financial difficulties as a result of the pandemic (IMF, 2020). For example, in Italy substantial postponements were introduced regarding the deadlines of the compositions with creditors and debt restructuring agreements; furthermore, bankruptcy of large companies filed from March to June 2020 have been deemed inadmissible (Law Decree No. 23 of 2020). Therefore, since several actions related to insolvent or next-to-insolvent firms were suspended, banks will not update any information regarding these firms, leading to an increase in the opacity of loan portfolios.

Second, an additional source of opacity lies in the flexibility that banks were temporarily granted in the application of accounting practices and loan classification. The concern is that, due to the sizable economic slump generated by the pandemic, to the large uncertainty that surrounds its evolution and to the high volatility of financial markets, the incorporation of the most recent macroeconomic developments and projections would produce very large pro-cyclical effects on banks' balance sheets. For example, regulators introduced some flexibility in the classification of loans backed by public support measures (ECB, 2020a, 2020b)³ and recommended that forecasts in banks' calculations of provisions smooth excessive pro-cyclicality in the assumptions regarding expected credit loss (ECL) estimations (ECB, 2020a). Indeed, in certain cases some of these updates in economic forecasts would automatically require banks to take actions, possibly inducing them to

² Banks act as "quasi insiders" of their borrowers (Diamond, 1984, 1991; Gande and Saunders, 2012).

³ The greater flexibility is also applied to the accounting treatment of exposures posing a significant increase of credit risk (i.e. the transition from Stage 1 to Stage 2 under the IFRS 9 framework). Moreover banks that have not done this so far should opt for the IFRS 9 transitional rules to mitigate volatility in banks' regulatory capital.

deleverage⁴; the rationale for loosening the incorporation of current economic data in banks' statements therefore also lies in preventing, or at least diluting, some compulsory actions on behalf of intermediaries. Finally, some of the Covid-19 related easing of the prudential requirements, besides providing a relief in terms of capital, has also responded to the same type of logic: smoothing the immediate impact of a severe shock to banks' balance sheets. For instance, this is the case of the temporary reduction in capital requirements for market risk, which accounts for "the extraordinary levels of volatility recorded in financial markets since the outbreak of the coronavirus" (ECB, 2020c).

All in all, banks' balance sheets may have become less responsive to underlying economic developments. Not only available information on single borrowers is less timely due to easing on firms' obligatory disclosure, but banks have also the option of delaying the incorporation of macroeconomic scenarios and forecasts. Overall, by freezing the representation of credit risk to the pre-Covid situation, banks' asset sides might have become more opaque.

3. Trade-off between opacity and transparency

As already mentioned, due to the informational frictions intrinsic in the financial intermediation function, banks' balance sheets are an essential source of information for a wide set of actors. Market participants monitor banks' health from a variety of perspectives and they do so largely based on the documentation disclosed by banks themselves. Equity and bond-holders monitor the conditions of financial institutions to evaluate their profitability and solvency. Less sophisticated agents, such as depositors, assess the soundness of banks when choosing where to allocate their liquidity and savings. Rating agencies and other analysts need information to provide updated evaluations on the riskiness of financial intermediaries. The availability of timely and accurate financial statements is therefore key for this monitoring process.

It is a common motive in economic theory that accurate information helps economic agents to allocate efficiently scarce economic resources in an uncertain environment (Blackwell, 1951). Furthermore, it alleviates moral hazard concerns and it improves the functioning of markets through the reduction of asymmetric information; price efficiency in turn fosters market discipline and make financial and non-financial firms more accountable for their choices.

Due to maturity mismatch and the inherent information asymmetries, the stability of the banking sector depends critically on how markets process and react to information. When information is adverse, banks become particularly vulnerable. The classic example is the inefficient bank run (Diamond and Dybvig, 1983), which shows that creditors' beliefs can turn into a panic that threatens a bank survival regardless of its long-term viability. Building on the seminal work of Diamond and Dybvig, several papers point out that such inefficient runs are more likely when individual and aggregate economic conditions are weak (Goldstein and Pauzner, 2005; Eisenbank, 2017; Gorton and Ordonez, 2019). Therefore, given the current negative macroeconomic outlook, it seems particularly relevant to assess the extent to which an increase in opacity can influence bank stability.

The academic and policy debate on information disclosure in banking often seems to suggest the existence of a trade-off between transparency and opacity. Frictions such as the lack of commitment, the impossibility to write complete contracts, and coordination issues on the bank creditors' side may lead opacity to be a superior solution in second-best environments. In this respect, the academic literature points out several benefits of information opacity: i) to implement efficient

⁴ The risk is that a deteriorated macroeconomic scenario rapidly translates into a surge of loan write-offs, further eroding banks' capital positions and possibly reducing business lending and exacerbating business cycle fluctuations, if banks are unable or unwilling to raise new equity.

risk sharing among economic agents (Hirshleifer, 1971; Dang et al., 2017)⁵; ii) to prevent coordination issues that may lead to inefficient runs (Diamond and Dybvig, 1983; Morris and Shin, 2002; Goldstein and Pauzner, 2005; Eisenbach, 2017); iii) to avoid inefficient investment decisions due to excessive market short-termism (Gigler at al., 2014).

The seminal contribution of Morris and Shin (2002) on the social value of information provides the theoretical background to argue that **informative public data improves social welfare**. They point out that, also when agents overweigh public signals to mimic other agents (as in bank runs), disclosing information to the public is still welfare improving when agents privately hold less precise information. Yet it is crucial that what is disclosed is actually informative and allows inferring the future developments in a meaningful way.

4. The management of information after the Covid-19 outbreak

The current increase in opacity induced by delays and suspensions in reporting and disclosure obligations seems consistent with the implicit assumption that the pandemic is an extraordinary but temporary shock. Under this view, information produced after the Covid-19 outbreak may be not useful to forecast the future economic scenario and may represent a significant noise for evaluators. In this perspective, given that several firms suspended their activity and that uncertainty over the evolution of the recovery is very high, firms could hardly produce credible information. Then, to reduce the risk that misleading information may lead to suboptimal decisions as well as to avoid the unintended consequences related to the automatic application of banking and insolvency rules, the adopted measures have led to a quasi-freeze of banks' balance sheets, at least until the uncertainty surrounding the pandemic shock decreases.

The potential benefits associated with the increase in opacity are significant because it may support banks in their role of providing credit to the real economy during the crisis period. Banks might benefit from delayed disclosures as well as suspensions of bankruptcy procedures by not feeding negative information into their credit risk models. For intermediaries adopting internal rating models (IRB approach), this would translate directly into the capital requirement for outstanding exposures: if firms do not disclose negative information, banks may not update their evaluations on borrowers' riskiness, hence they avoid setting aside additional capital. Moreover, if pricing closely follows credit risk models, borrowers might benefit from unchanged conditions until internal evaluations are revised downward. In turn, the less severe financial conditions may reduce the risk of a rise in nonperforming exposures.

Analogously, by relaxing the incorporation of macroeconomic projections in accounting standards, banks are able to suspend the automatic adjustments that would have otherwise followed the downward revision of loans classification and the rise in expected losses, such as an increase in risk-weighted assets and in provisions. Therefore, this flexibility granted by regulators may dampen the increase in the cost of funding for banks and the consequential reduction in credit supply.

Overall, if the Covid-19 shock affected information in a way that can be qualified as a temporary outlier, then the choice to suspend or avoid the disclosure of "misleading" information would be the most appropriate.

However, two issues might weaken the ability of this "information freeze" to work as intended.

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⁵ As pointed out in Dang et al. (2017), banks rely on opaque loans to produce money-like safe liquidity, reducing liquidity if needed to prevent agents from producing costly private information about the banks' loans.

a. Voluntary nature of flexibility

Although a temporary suspension of information may be optimal, accounting standards have been relaxed via the introduction of flexibility, which does not make the freeze mandatory. The *voluntary* nature of these policies may lead to negative externalities and strongly reduce their effectiveness relative to their final goal.

Banks are scrutinized not only by supervisors but also by external investors, and the latter may negatively perceive intermediaries that benefit from the leeway, even if these deviations are allowed by regulation. Indeed, the literature documents that, during periods of financial distress, granting more flexibility in the calculation of bank requirements leads investors to become more sceptical on complex risk-based indicators (Das and Sy, 2012). Therefore, **those same actions that are intended to provide a relief may be interpreted as a negative signal about the financial institutions' solvency, leading to a potential rise in the cost of funding also for relatively sound banks.** As a result, intermediaries that are more likely to be penalized by the exercise of regulatory flexibility might be hindered through market reaction from adopting any leeway provided, dampening the benefits of these measures for the real economy.

The negative externality is indeed likely to vary across institutions. Intermediaries that rely more widely on deposits may take advantage of resources freed by the regulatory flexibility because their main financing sources are less sensitive to financial market expectations and, consequently, the risk of an increase in their cost of funding is lower. In contrast, banks that generally tap the financial market to satisfy their financing needs may be more constrained to meet investors' beliefs. As a result, the risk of negative market reactions is particularly detrimental for the second category intermediaries. Furthermore, coordination issues may heighten the potential negative externality. If not all banks use regulatory reliefs at the same time, the first institution that, for example, discloses the exercise of flexibility may suffer a significant negative market reaction.

In other words, the threat of stigma might be so large to induce intermediaries to disclose that they are *not* using any flexibility. They might do so by complying with the regulatory framework of pre-Covid times and by disclosing their results and their actions (for instance, their level of provisions that they set aside) so as to reassure the market that they are not taking advantage of regulatory forbearance and that they are prepared to withstand a future shock. This type of behaviour can in turn trigger a paradoxical "race to the top" and put additional pressure on their peers, which risk to be ranked as less solvent by the market, unless they align with the first movers via similarly prompt reactions.

All in all, considerable market pressure may push banks to avoid the exercise of flexibility, regardless of regulators' suggestions. In this context, the side effects of the voluntary adoption of these policies may imply that only a mandatory ban on disclosure would be effective in attaining the regulators' objective. Nevertheless, such a measure may not be an acceptable solution for the market and it should be carefully assessed. In addition, any obligatory suspension should be enforced *ex ante* (i.e. before any individual bank disclosed information) since, if implemented as amendments to the current flexibility regime, might not avoid spurring pronounced market reactions.

b. Ambiguity aversion

The lack of information on borrowers dis-anchors the monitoring process and the extension of new credit from actual and prospective firm performance and might become a constraint to credit supply. A vacuum of information may increase uncertainty over the future firm performance and, in turn, the ambiguity aversion of lenders may result in the adoption of more conservative credit policies that would worsen firms' access to credit, delaying the extension of new loans. For listed companies heightened uncertainty on their performance may spur a spike in share price volatility that, in turn, may raise their cost of credit (Gallo, 2019). Indeed, banks usually incorporate financial market

measures in their evaluations,⁶ and an increase in the volatility of shares prices may raise the riskiness of exposures to listed firms.

The picture is complicated by the fact that, within the Euro area, the broad measures of reliefs directed to firms have so far been introduced by national legislation, while banks are supervised at centralized level. Some suspensions of disclosure obligations for firms apply within national jurisdictions and vary across them. An example of this potential source of inconsistency is the heterogeneity in insolvency laws, which remain an eminently national domain. Unlike the sources of flexibility provided for by EU-wide and euro-area wide regulatory framework, which are common to all countries, this heterogeneity might complicate the task of centralised supervision of banks, since the timing and intensity in the emergence of credit risk signals might be different across national borders.

In the coming months, the reluctance on the extension of new credit will be likely offset by the generous public loan guarantee schemes adopted in several countries that reduces banks' aversion towards granting new loans. However, as described in Gobbi et al. (2020), once guarantees expire, firms' financial leverage will likely be higher and this might cause problems in the roll-over of their debt. Should firms need equity injections to reduce their debt overhang problem, they might have trouble in finding outside investors: the problem of scarcity of information on firm performance will be compounded by the weakened monitoring role of banks, on which investors typically rely upon.

5. Information setup to support the transition to a new equilibrium

The benefits and the relative side effects of the rise in opacity depicted in Section 4 rely on a scenario of a considerable but temporary economic disruption. However, the recent pandemic developments suggest that this shock could likely change the economic environment for a long time, altering drastically the behavior and the preferences of economic agents. Firms operating in several sectors, such as tourism and entertainment, could be affected by a sizeable contraction in their business activity, due to a reduction in consumers' demand and regulatory constraints (e.g. restrictions on public gatherings or on international travels). In some sectors, the suspension of information about their performance will only delay the emergence of solvency issues.

At the moment, it is not easy to identify the optimal information setup. Indeed, information management is not just a tool to avoid the short-term repercussions of a shock, but it is a powerful instrument to preserve financial stability as the economic and financial system experiences the transition to a new equilibrium. The decision on **how to disclose updated and reliable information on banks' state of affairs to the market in the following months is non-trivial and there is no universal recipe**.

The literature suggests that a discriminating factor is the *overall* soundness of the banking system. If the latter is overall resilient, opacity is optimal to discourage runs and keep risk sharing arrangements across banks (Goldstein and Leitner 2018). For example, during the national banking era, the New York City clearinghouse successfully stopped a bank run on some of its members by replacing the publication of individual bank balance sheets with an aggregate balance sheet that reassured investors, as the overall system was solvent.

If instead the banking system turned to be very fragile, transparency might be the optimal choice: in this case, absent any other policy intervention, information disclosure can help single out the solid intermediaries and allow them to continue operating (Bouvard et al., 2015; Goldstein and Leitner, 2018). However, Gorton and Ordonez (2019) show that opacity can still be optimal if coupled with a policy intervention aimed at removing troubled assets from the weakest banks;

⁶ For example, several banks adopt a Merton-based methodology to evaluate listed corporates (e.g., Barclays, 2015).

indeed, absent opacity, those same banks could suffer from a stigma effect even after their balance sheets have been restored. In other words, the literature suggests that the decision to disclose or not individual bank information should not be assessed *per se* but in conjunction with the other policy measures in place.

At the current juncture, market participants do not seem to question the system-wide resilience of the banking sector. Moreover, policy measures such as public loan guarantees will in part shield banks from the consequences of the Covid-19 related shock. In this respect, **public disclosure of** *aggregate* **information seem a credible strategy and receives broad support in the literature**. For example, Goldstein and Sapra (2013) argue that the benefits of disclosing precise aggregate information on stress test results outweigh the potential risks of a systemic bank run. Moreover, the disclosure of data on the intensity of firms' reliance on credit lines as well as commitments across sectors of economic activity and geography may provide reliable information of the risk borne by the banking system. A regular disclosure of *aggregate* data may help market participants to assess more objectively the conditions of the banking sector, and avoid panic episodes which may still occur based on the disclosure of less accurate public information (e.g. by rating agencies or other international financial institutions). This would also reduce the market pressure on intermediaries, by alleviating the uncertainty about the resilience of the banking industry for investors.

Given the overall soundness of the banking system, the literature suggests that public disclosure of *individual* bank data would be detrimental, as it would damage the weakest intermediaries despite being still solvent. However, as discussed in Section 4.a, a prolonged ban on the disclosure of some type of individual bank information could be counter-productive due to the significant market pressure on intermediaries to receive updated information.

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⁷ They also claim that information on system-wide banking variables is usually less noisy that that on individual banks and it would materially improve the information set of market participants.

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