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FINANCIAL REPORTING AND MACROECONOMICS

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Abstract

Financial Reporting (FR) is a fundamental source of information for the correct functioning of markets. Traditionally, FR is associated with the communication activity done by firms to inform stakeholders and the general public about their financial performance. In the first and second part of this essay I revisit some of the channels through which firm-level FR affects and is affected by the macroeconomic environment. However, companies are not the only economic actors that engage in a FR activity. Local and national governments produce financial reports as well. In the third part of this essay, I review how we can use the theoretical framework developed for firm-level FR to study government-level FR. I conclude by highlighting the importance of incentives as the fundamental mediator of the relationship between FR and Macroeconomics. I remark how they shape different FR environments during crisis and non-crisis periods and the importance of taking these differences into account while regulating and supervising markets.

Keywords: financial reporting, accounting regulation, crisis, fiscal guidance

JEL: E60, G28, M41, M48

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1. INTRODUCTION

Financial Reporting (FR) is a fundamental source of information for the correct functioning of markets. The ability of stakeholders to judge the financial health and performance of organizations depends crucially on FR. Consequently, we expect many economic decisions to be crucially affected by FR. Stock market investments, lending decisions, mergers and acquisitions, government aid programs to companies, trade unions negotiations, are just some examples of economic situations where the information produced by FR can play a key role in shaping the behaviour of the agents involved. For this reason, we expect FR to exercise an important role in the functioning of the whole economy and to have the potential to affect crucially the macroeconomic behaviour of an economic system.

Traditionally, FR is associated with the communication activity done by firms to inform stakeholders and the general public about their financial performance. Given the importance played by companies as agents within an economic system, we should expect the FR of companies to have at least an indirect effect on the performance and health of any economic system. To elaborate on one of the examples listed above, trade unions should be informed about the financial situation of companies in order to conduct properly their negotiations with shareholders and with the authorities. They are likely to obtain at least part of this information from the outcomes of FR, such as the financial statements of companies. Strikes and laws regulating the hiring and firing of workers are expected to affect labour productivity. Hence, we may expect FR to eventually influence GDP through this channel. In the first section of this essay, I will focus on how the FR of companies can affect the macroeconomic performance of an economic system. In particular, I will concentrate on the relationship between FR and Financial Stability (FS).

However, companies do not operate in a vacuum. They are affected by economic and financial cycles and crises. Hence, we can ask ourselves whether FR is affected by these cycles and crises. Companies may change the way in which they report their financial performance and health because of a change in the economic and financial climate. The primary object of interest here are not the final

outcomes of FR, e.g. the financial statements. What we are interested in is the process that shapes those outcomes, i.e. how financial statements are built and communicated. In the second part of this essay, I will focus on how macroeconomic conditions affect FR by companies. In particular, I will concentrate on the effects of economic and financial crisis on the degree of conservatism of FR.

Companies are not the only economic actors that engage in a FR activity. Local and national governments produce financial reports as well. For example, they need to report on their budget deficits or surplus, on their GDP, on imports and exports, on their properties and debts. They may not produce traditional “balance sheets” or “income statements”, but they need to produce documents that can be assimilated to “statements of financial position” or “statements of financial performance”. The study of this communication activity through the lenses of “Financial Reporting” is a quite recent phenomenon. In the third part of this essay, I will focus on how the FR activity of national governments is shaped and on its potential effects on the functioning of other markets. In particular, I will concentrate on the determinants of government fiscal transparency and its effects on the stock market.

2. FROM FINANCIAL REPORTING TO MACROECONOMICS

Is FR a neutral messenger of the behavior of fundamentals economic variables or does it play an active role in determining the behavior of markets and, consequently, in shaping those fundamentals? In this section, I will try to answer this question by focusing on the financial reporting of banks before, during and after the last financial crisis.

At the time of the 2007-2009 financial crisis, Fair Value (FV) accounting was accused to exacerbate the gravity of the crisis. The idea behind this accusation is expressed well by the following quote:

*“When others sell, observed transaction prices are depressed more than is justified by the fundamentals, and exert a negative effect on all others, but especially on those who have chosen to hold on to the asset. Anticipating this negative outcome, a short-horizon firm is tempted to preempt the fall in price by selling the asset itself. However, such preemptive action merely serves to amplify the price fall. In this way, **the mark-to-market regime generates endogenous volatility of prices that impede the resource allocation role of prices.**” (Plantin et al., 2008, p.439)*

This work by Plantin et al. (2008) was able to have an important impact not only within the academic community, but also within practitioners, commentators and policy makers. For example, it was quoted by *The Economist* in an article published on the 30th of August 2007, right at the beginning of the financial crisis and before it was officially published in the *Journal of Accounting Research*.

In principle, the vicious loop argument presented by the authors can be applied to the use of FV accounting for any asset, but at the time of the crisis, it was used with special reference to the accounting for financial instruments by banks. It was argued that, once the financial crisis had started, banks could initiate massive (fire) sales of financial instruments in order to prevent the need to recognize the loss in value of these instruments in their financial statements, through the FV accounting channel. These fire sales would facilitate the crash of markets and amplify the gravity of the financial crisis. The relevance gained by this argument is demonstrated by the issuance on the 13th of October 2008 of an amendment to IAS 39 by the IASB. This amendment limited the use of FV for the accounting of financial instruments and facilitated the reclassification of instruments out of FV and into Amortised Cost (AC).

The empirical evidence gathered in the following years shows that these fire sales did not happen. On one hand, Badertscher et al. (2012) use a sample of US banks to show that sales of assets in order to protect regulatory capital were either non-existent or economically insignificant. On the other hand, Abbassi et al. (2016) exploit a proprietary data set for German banks to show that these banks actually increased their trading portfolio after the crisis in order to profit from the rebounding of the stock markets. This behaviour has a perverse effect on the economy because it can generate a credit crunch, but FR and the use of FV accounting cannot be blamed for it. Acharya and Ryan (2016) provide a list of reasons why FV accounting has not played an important role during the crisis. First, the biggest share of banks' assets (loans and deposits) are accounted at AC rather than at FV. Hence, what we need to look at is the behaviour of loan-loss provisioning rather than FV. I will get back to this point later. Secondly, the definition of FV provided by accounting standards excludes fire sales

prices as an accepted reference. In situation of market collapse, FV is applied as mark-to-model rather than mark-to-market. Third, unrealized gains and losses on Available-For-Sale securities were excluded from the calculation of regulatory capital for banks. Fourth, the decrease in reference interest rates generated by expansionary monetary policy that usually follows recessions causes gains in the FV of low risk debt type securities rather than losses.

However, FV accounting is only one possible channel through which FR may affect macroeconomics and, in particular, financial stability. There could be other features of the FR activity that may affect the ability of financial reports to reflect properly the underlying fundamentals and consequently, their ability to act as reliable source of information for the economic system.

Going back to our example of FR by banks during the 2007-2009 financial crisis, recent work by Bischof et al. (2020) has revisited the debate and provided new insights. Moving away from the FV accounting debate, these authors want to investigate the role that FR may have played in mediating the effect those important bank failures that took place in Europe and in the US had on national and international financial stability. It is important to remember that in between October 2007 and October 2008 the following financial institutions failed or needed to be rescued: Northern Rock, Bear Sterns, HBOS, Fortis Bank, Hypo Real Estate, Royal Bank of Scotland, Dexia, Merrill Lynch, Lehman Brothers, Washington Mutual and Wachovia. Did FR rules and regulations guarantee a correct flow of information during this period? If they did not, then we could claim that the flaws of the FR regime contributed to the gravity of the crisis. Bischof et al. (2020) present arguments and evidence that raise doubts about the ability of the FR system to guarantee that all the agents involved could take the correct decisions during the crisis. Banks delayed the disclosure of their true exposure to the turmoil that was taking place in the market at the time and impaired bad loans too late. Moreover, these authors argue that prudential filters that shielded regulatory capital from being affected by FV changes actually prevented banks from implementing earlier the necessary corrective actions. This idea turns the vicious loop argument presented before upside down. Not

only FV accounting did not trigger fire sales and market crashes. If applied more frequently, it could have helped to prevent some of the worst outcomes from happening. The key factor behind the analysis presented by Bischof et al. (2020) is the importance of taking into account managerial incentives and the overall situation of a company while studying the effect of FR rules. As an example, they use the IFRS 9 rule that says that debt type securities as assets can be accounted for at AC if the business model is to keep them until maturity with the sole intention to collect the cash flows prescribed by the loan contract. The rationale of this rule is that, in this case, short-term FV fluctuations are irrelevant. Bischof et al. (2020) claim that we cannot judge whether this intention is credible by looking only to the asset side of the balance sheet in normal times. If those assets are financed through short-term instruments, then the behaviour of short-term prices have a crucial influence on the ability to hold these debt type securities until maturity and should affect the way we report them.

To conclude, FR rules do not actuate in a vacuum. They are applied and supervised by agents that have incentives and these incentives dynamically react to changes in the organizational and institutional environment. Consequently, the effects of a certain FR regime on macroeconomics may be different in normal times from crisis times. However, it is exactly the existence of this interaction that makes it difficult to argue that FR is simply a neutral messenger of some pre-existing fundamentals. FR activity is always shaped by agents' incentives and has the power to alter their decisions. When that happens, eventually the behaviour of macroeconomic variables can be affected.

3. FROM MACROECONOMICS TO FINANCIAL REPORTING

Let us now focus on the potential effects that the behaviour of macroeconomics variables may have on financial reporting choices at the firm level. Again, if the FR system simply reflects in a neutral and mechanic way the fundamentals, then when the macroeconomic environment changes, we expect to detect changes in the output of the reporting process (e.g. profits) but not necessarily in

the process itself. Moreover, we are also interested in knowing whether the channels through which FR affects the behaviour of markets change when the economic climate changes.

It is impossible to underestimate the importance of the study of the capital markets effects of accounting numbers within the academic accounting and finance literature. Starting with the seminal paper by Ball and Brown (1968), this line of research has gained a dominant role among FR research. A crucial construct for this line of research is the Earnings Response Coefficient (ERC), i.e. the econometric measure of the effect of accounting earnings on stock prices. To provide a comprehensive review of this huge literature is behind the scope of this essay. I will concentrate on papers that have studied the effects of macroeconomic crises and uncertainty on the ERC.

Johnson (1999) investigates if the time series fluctuations in the ERC already detected by Lev (1989) can be linked to the business cycle dynamics. Using a sample of US firms spanning from 1970 to 1987, she finds that the ERC is higher during expansion than in recessions. The idea is that, during an expansion period, earnings announcements trigger an upward revision of expected future earnings, which results in an increase of ERC. Jenkins et al. (2009) revisit this idea and explicitly distinguish between current earnings and future earnings and insert a proxy for future earnings in the earnings-returns relation. Using a sample of US firms from 1980 to 2003, they show that, during expansions, the ERC on current earnings actually decreases while the ERC on future earnings increases.

In order to deepen our understanding of these changes in ERC, we need to explore the possible channels behind it. As anticipated above, we want to understand whether macroeconomic fluctuations affect the FR process itself and not just its outputs. Jenkins et al. (2009) propose accounting conservatism as the key determinant. They show that conditional conservatism is lower during expansion and propose this change as the rationale behind their ERC result: less conservative current earnings are valued less by investors. More generally, the use of the accrual principle in an uncertain world makes FR subjective. There is always a certain degree of discretion in the calculation

and reporting in the financial statements of many accrual based entries. These accounting choices are the backbone of what is known as accrual based Earnings Management (EM). On one hand, during a crisis period we could expect EM to increase because of the willingness of companies to hide bad news and artificially sustain reported earnings (Matsumoto, 2002; Kasznik and McNichols, 2002, Bartov et al., 2002). On the other hand, we may expect auditors to become more risk averse during economic downturns and trigger a decrease in EM (Sercu et al., 2006). Liu and Ryan (2006) provide evidence of an increase in accrual based EM by banks around the 1990 crisis. During the pre-1990 crisis, banks delayed the recognition of loan-loss provisions in order to sustain their level of earnings. During the after-1990 boom, banks accelerated the recognition of loan-loss provisions to limit the recognition of excessive earnings. As already mentioned before, Bischof et al. (2020) also support the idea that, during the last financial crisis, banks artificially supported their earnings by delaying the impairment of bad loans.

Trombetta and Imperatore (2014) revisit this debate. Contrary to Liu and Ryan (2006) and Bischof et al. (2020) we focus on non-financial companies. We also differentiate between business cycles and financial crisis and focus on the latter. Despite being highly correlated, the two phenomena are not identical. Figure 1 plots contractions as defined by the NBER and the intensity of the financial crisis as measured by the index proposed by Hakkio and Keeton (2009). As we can see, financial crisis are active before and after contractions.

[Figure 1 around here]

Figure 2 provides a graphical representation of our results. Using absolute (and positive) Discretionary Accruals (DA) as a proxy for EM and a sample of US firms between 2000 and 2011, we find a statistically significant relationship between the intensity of the financial crisis and EM. When the financial crisis is relatively weak, it prompts a decrease in accrual based EM (i.e. an increase in earnings quality). However, when the financial crisis is relatively more intense, the relationship changes direction and accrual based EM increases (i.e. a decrease in earnings quality).

[Figure 2 around here]

During the initial phase of a financial crisis, firms seem to react to an increased scrutiny by investors by improving FR quality. However, if the financial crisis intensify, then they switch to the use of accrual based EM in order to present better results.

An interesting extension of this line of enquiry has separated banking crisis from equity market crisis as different manifestations of a financial crisis. Khan and Lo (2019) exploit the exogenous shock to the US banking system generated by the financial crisis experienced by emerging markets in the late 90's. The most affected US banks tightened their lending standards in the post-crisis period. This behaviour generated a "banking crisis" for the US clients of these banks and their response was to adopt a more conservative FR strategy in order to better comply with these new standards and avoid a credit crunch. Levine et al. (2016) investigate whether banking crises trigger a phenomenon called the "spare tire" effect. Given that bank-lending capital is less available during a banking crisis, companies may try to substitute bank lending for equity capital as a source of financing. Using an international sample of companies between 1990 and 2011, they are able to show that the adverse consequences of a banking crisis are less severe in countries where equity investors are better protected by the institutional environment. Hence, at least in these countries, they show evidence of some "spare tire" effect taking place.

Trombetta and Imperatore (2020) combine these two ideas and test whether the accrual based EM reaction to banking crises detected by Khan and Lo (2019) can be the mechanism behind the "spare tire" effect detected by Levine et al. (2016). We use firm-level data for five European countries (France, Germany, Italy, Switzerland and United Kingdom) between 1999 and 2014. We show that, in countries with strong investor protection, during a banking crisis, companies increase their accrual based EM and that this FR choice facilitate the access to equity markets. In other words, FR choices act as the "jack" that help companies substitute bank lending (the flat tire) with equity capital (the spare tire). It is interesting to notice that this phenomenon is observed in countries with strong

investor protection. Leuz et al. (2003) had shown that, in normal times, strong investor protection is associated with less accrual based EM. We find that, during banking crisis periods, the opposite is true. A possible rationale for this reversal is provided by Samuels et al. (2020). These authors distinguish two effects of accrual based EM: the monitoring effect and the valuation effect. High-quality FR facilitates monitoring and, consequently, should be associated with less EM. However, high-quality FR is more reliable for equity investors who should rely more on it when taking their investment decisions. This valuation effect amplifies the incentive to misreport and should be associated with more EM. Hence, we may observe a positive or a negative relationship between high-quality FR and EM depending on which of these two effects dominates. If we associate strong investor protection with high-quality reporting, then we could argue that in normal times the monitoring effect dominates (Leuz et al., 2003) while in crisis times the valuation effect may dominate (Trombetta and Imperatore, 2020).

To summarize, there exists strong evidence that changes in the macroeconomic environment, such as business cycles or financial crisis, not only affect the output of the FR activity. They also affect the way in which these outputs (e.g. earnings) are reflected by market prices (e.g. stock prices). We also observe changes in the FR process itself and, in particular, on accrual based EM. Again, the root of these changes is likely to be the interaction of the macroeconomic environment and the incentives of those in charge of choosing the FR strategy at the firm level.

4. FINANCIAL REPORTING OF MACROECONOMICS

Finally, I would like to tackle a third aspect of the relationship between FR and Macroeconomics: the FR of macroeconomic variables by national governments. FR is usually thought as a firm-level activity. However, governments are also required to report regularly about their financial performance and financial position. This governmental financial reporting activity has its roots in the need for the national government to be transparent about the amount and the use of the funds

raised through taxes so that citizens can evaluate the public policies implemented also from the point of view of their financial consequences. Moreover, governments need also to be financial accountable towards supranational institutions such as the EU, the IMF or the World Bank.

Preparing, approving and implementing the “Budget” is one of the most important recurring activity of any government around the world and it involves the preparation and dissemination of various periodic governmental “financial reports”.

A recent strand of literature has investigated if governmental FR is affected by something similar to the accrual based and real EM observed at firm-level. Kido et al. (2012) study state government’s accounting choices in the US during a state-governor election year. Even if government accounting tend to be done on a cash basis, they single out two deferred employment benefits liability accounts that are reported on an accrual basis and, consequently, can be manipulated by the incumbent state administration in order to improve the chances of being re-elected. They find that these two liability accounts are systematically lower in an a election year, providing evidence of accrual based manipulation in governmental FR. Costello et al. (2017) study the effect of balanced-budget rules on the actions taken by state government to close a deficit. Previous literature (e.g. Poterba, 1994) had already shown that, in the presence of balanced-budget rules, states would increase taxes and decrease spending in order to reduce and close the deficit. Costello et al. (2017) replicate the same result, but they also show that public asset sales and transfer of resources across funds are also used to close the budget deficit, providing evidence of real EM in governmental FR.

The institutional framework of the European Union provides an interesting setting to study FR by national governments. In particular, under the Stability and Growth Pact (SGP) signed to support the creation of the EURO, member states are required to report annually their forecasts about the evolution of certain important macroeconomic variables. This “fiscal guidance” annual exercise was put in place in order for the EU to supervise the implementation of the budget rules established through the SGP. The first fiscal guidance documents were issued in 1997. In 2001 the guidelines for

the preparation of these documents were revised. Despite the existence of these guidelines, governments keep a substantial amount of discretion in preparing these annual reports.

Few studies have investigated whether this discretion is used to artificially comply with EU budget rules. Von Hagen and Wolff (2006) analyse Stock Flow Adjustments (SFA), i.e. the difference between the increase in the level of national debt in a certain year and the budget deficit of the same year. Ideally, SFA should be equal to zero, but in real life they can be positive or negative due to, for example, exchange rate fluctuations on foreign denominated debt. However, accidental SFA should cancel out throughout time. These authors show that this is not always the case and they document a persistent flow of positive SFA for some EU countries, showing the use of SFA as a form of “creative accounting” to hide deficits from official reports. Pina and Nunes (2011) study the characteristics of the budget forecasts of 15 EU countries and they detect over optimism in election years. Frenkel and Schreger (2013) provide evidence of a consistent overestimation of GDP growth in government official forecasts. This bias is even stronger for countries belonging to the EU. Taken together, these studies support the idea that governmental FR by EU countries is often manipulated to comply with the rules of the SGP:

An important feature of firm-level FR is its degree of transparency. There is no unanimous consensus on a precise definition of transparency. However, a common approach to proxy for it is to measure the quantity of information disclosed by a company. Alt and Lassen (2006) adopt this approach at the macro level and develop an index of budget transparency based on the number of documents issued by governments during the whole of the budget process. Alt et al. (2014) use this index and show, through the analysis of SFA, that higher level of budget transparency reduce the “creative accounting” used by EU countries to comply with the SGP rules. Glennerster and Shin (2008) study the effect of the adoption of increased macroeconomic transparency rules under the supervision of the IMF in emerging countries and find that it decreases significantly the cost of raising sovereign

debt. Both these studies document the positive effects of government transparency in reporting macroeconomic variables.

Columbano and Trombetta (2020) adopt a similar approach to study the determinants of the level of transparency of the Stability and Convergence Programs (SCP) issued annually by EU member states between 2001 and 2018. Our index of transparency is based on a potential list of items that should be included in any SCP according to the guidelines issued by the EU under the SGP. We count the number of items actually disclosed by each country and scale it with the total number of required items. We also measure the forecast accuracy of each government as the difference between the forecast of the variable and its actual realization. On one hand, we find that those governments that are better forecasters and have less financing needs react to an increase in the level of uncertainty by reducing their level of transparency, (i.e. they “go dark”). On the other hand, governments that are relatively worse at forecasting and with high financing needs keep a constant level of transparency even when uncertainty increase. The theoretical literature on disclosure at the firm-level has shown that uncertainty about the true value of private information can be behind a no-disclosure equilibrium (Jung and Kwon, 1988). It has also shown that forecast ability can explain “reverse” equilibria where more disclosure is interpreted as bad news by the market (Gietzmann and Ostaszewski, 2014), because in equilibrium less able forecaster disclose more. We use these two results to provide the rationale for our results on government transparency. Those governments that have a reputation of being accurate in their forecasts and do not have pressing financing needs, reduce their number of forecasts when uncertainty increase because they do not want to be too wrong ex-post and have the budget capacity to suffer the potential negative consequences of non-disclosure.

So far, we have focused on the determinants of FR by national governments. I now want to switch to the effects. Given the importance of the macroeconomic environment for the performance of firms, we would expect to find a relationship between the financial performances of governments, for

example in terms of budget deficits, and the behavior of asset markets. Ardagna (2009) uses yearly data on 16 OECD countries between 1960 and 2002 to study the relationship between fiscal expansions and contractions and interest rates and stock prices. She finds that fiscal expansions (contractions) are associated with an increase (decrease) in interest rates and, consequently, a decrease (increase) in stock prices. Agnello and Sousa (2013) use quarterly data on 10 OECD countries and a more sophisticated econometric technique, but confirm the previous result: fiscal expansions decrease stock prices.

Bafundi and Columbano (2019) revisit this issue. However, they focus on fiscal forecasts and plans rather than on actual fiscal outcomes. They use the same database used by Columbano and Trombetta (2020), i.e. all the SCP issued by EU member states under the SGP between 2001 and 2018. They exploit the fact that they are able to determine the exact date of the issuance of the SCP by a certain country. This allows them to run a short-term window event study on the effect of the issuance of these SCP on the stock market. They find that announcements of an improvement in the budget balance have more of an effect than announcements of a deterioration. Moreover, in line with the results of Columbano and Trombetta (2020), the effect of the announcements on the stock market is mediated by the credibility of the government. They divide governments in two categories. Optimistic government are those that overestimated the change in the budget balance in the past, whereas conservative governments are those that underestimated it. They show that announcements of a forecasted improvement in the budget balance have a significant effect on cumulative abnormal returns and trading volume only when they are issued by conservative governments.

To summarize, the empirical evidence available supports the idea that governmental FR is shaped by incentives as much as firm-level FR and can be affected by similar forms of “creative accounting” in order to please influential stakeholders such as the EU under the SGP that supports the Euro. However, more prudent government seems to try to separate from less prudent government by

disclosing less when uncertainty is higher. The stock market seems to react ex-post to fiscal expansions and contractions, but to react ex-ante only to announcements issued by more credible governments.

5. CONCLUSION

In this essay, I have reviewed some aspects of the relationship between FR and Macroeconomics. We have seen that this relationship can be analyzed at least under three different perspectives. A graphical synthesis is presented in Figure 3

[Figure 3 around here]

First, we can look at channels through which firm-level FR can influence the course of Macro phenomena. We have focused on the literature that has investigated how banks' FR activity can affect the overall stability of financial markets. This literature has highlighted the potential role that FV accounting and loan-loss provisions can play in shaping the behavior of markets before, during and after a financial crisis. Hence, financial accounting regulation must be considered as an integral part of the supervisory system that oversees the stability of financial markets.

Second, we can look at how firm-level FR reacts to changes taking place at the Macro level. We have focused on variations in accrual-based and real EM induced by business cycles and financial crises. We have seen that changes in the ERC detected during different phases of the economic cycle are associated with changes in firm-level accounting policy choices. The most recent literature has underlined the crucial role played by the institutional environment in shaping these changes and their effects on markets.

Third, we can look at government-level FR. Governments need to report periodically on the actual status and future prospects of their revenues and expenses (the "budget"), and of their financial position (public debt). We can adopt the conceptual framework developed for the firm-level FR activity to analyze this macro-level FR activity. We have seen that there is evidence of accrual-based

and real EM and of partial or no-disclosure equilibria also at this macro-level and of a response of financial markets to government produced financial reports.

All the studies reviewed in this essay point to a crucial factor that shapes the relationship between FR and Macroeconomics: incentives. No matter whether we are studying firms or governments, organizations are run and managed by individuals that, while making their FR choices, respond to the incentives that they perceived as the strongest in that particular moment. The effects of rules and standards on economic activity are mediated by the effect that they have on these incentives. A common finding of the three streams of literature covered in this essay is that incentives during a crisis period are different from those present during a non-crisis period and generate a different FR environment both at firm-level and at government-level. These differences need to be taken into account by those agents that use the outputs of the FR activity (company financial reports or government fiscal reports) as a fundamental source of information for their decisions.

The essay has focused on studies that have used US and/or EU samples. We have seen that the institutional framework is a crucial factor in the relationship between FR and Macroeconomics. The regulatory and political framework of emerging economies may have its own peculiarities and it provides opportunities for future research. Two issues could be of special interest while studying FR and Macroeconomics in emerging markets.

On one hand, we can consider the relationship between political connections and firm-level financial reporting. The data provided by Hung et al. (2018) indicate a predominance of politically connected firms in emerging economies compared to developed economies. These authors find that politically connected firms disclose less. Preuss and Königsgruber (2020) provide a review of how political connections may affect the FR activity of firms and, consequently, their access to external financing. Leuz and Oberholzer-Gee (2006) study the case of Indonesia and show that political connections may affect negatively the flow of foreign capital towards domestic firms.

On the other hand, we could study how FR at the government level affects the achievement of development goals in emerging economies. Kauffmann and Bellver (2005) provide some preliminary evidence on this topic, but more evidence is needed.

Another interesting area for future research is to investigate the role of enforcement in shaping FR, especially at the government level. Within the context of the role of FR by banks and its effects on financial stability, Dal Maso et al. (2018) document the significant influence of enforcement on the level of the abnormal loan loss provision used as a proxy for banks' earnings quality. With respect to FR at the firm level, the importance of actual enforcement over and above formal regulation has been documented, for example, by Siegel (2005) and Licht et al. (2018). However, when we move to FR at the government level, we certainly have to learn more about how the expected consequences of not meeting the objectives of the budget plan affect the construction of the plan itself because "...enforcement power often has to be added to free transmission of information to make transparency effective" (Alt, 2019 p.11).

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List of Figures

Figure 1. Financial crisis (KCFSI) and contractions

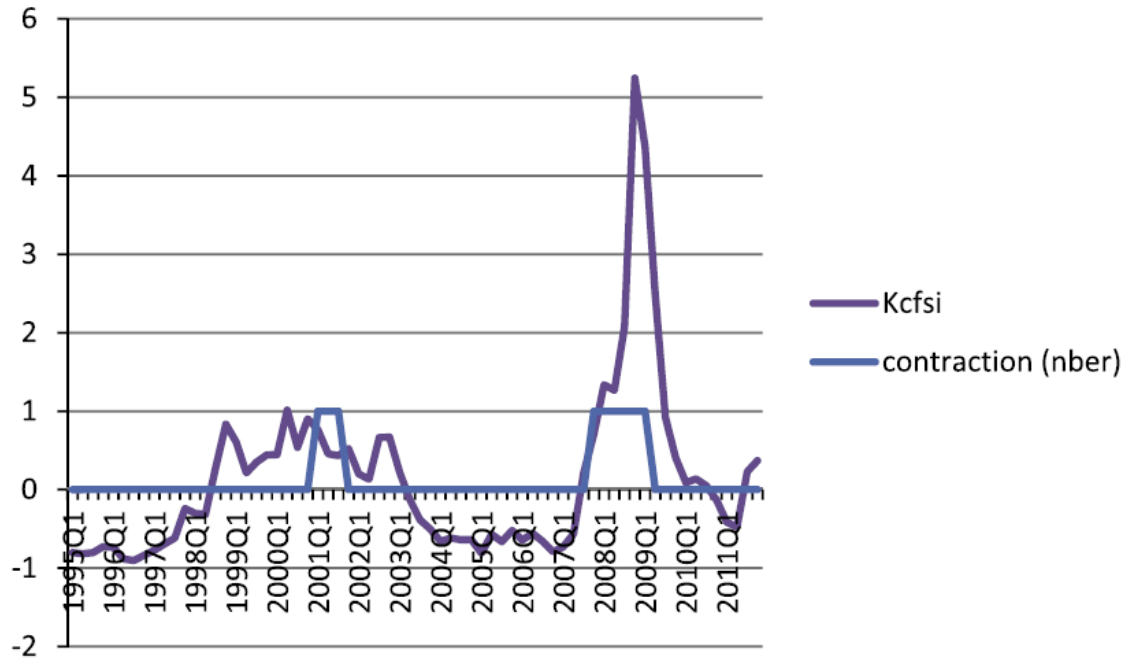
Figure 2. Discretionary Accruals (DA) and crisis intensity (KCFSI)

Panel A: Absolute DA

Panel B: Positive DA

Figure 3. Financial Reporting and Macroeconomics: a synthesis

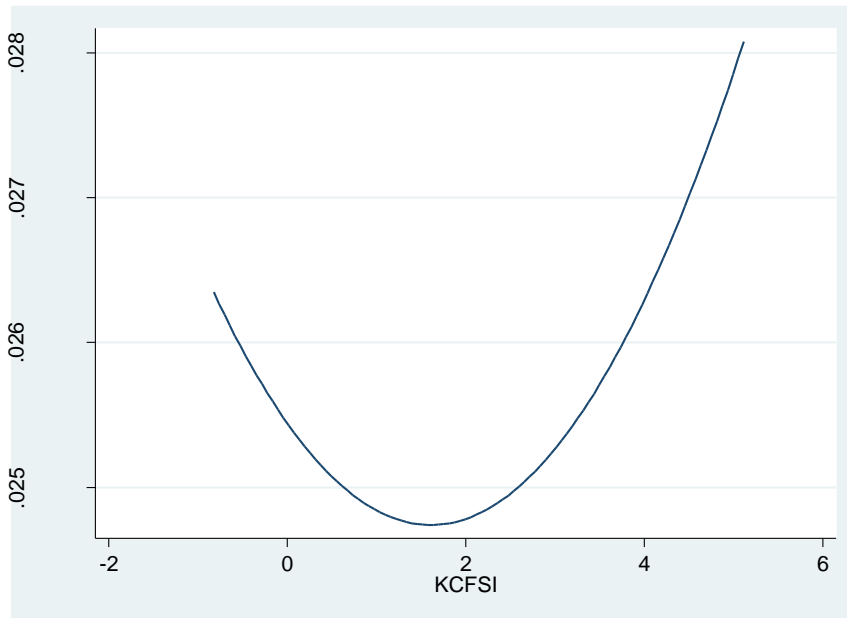
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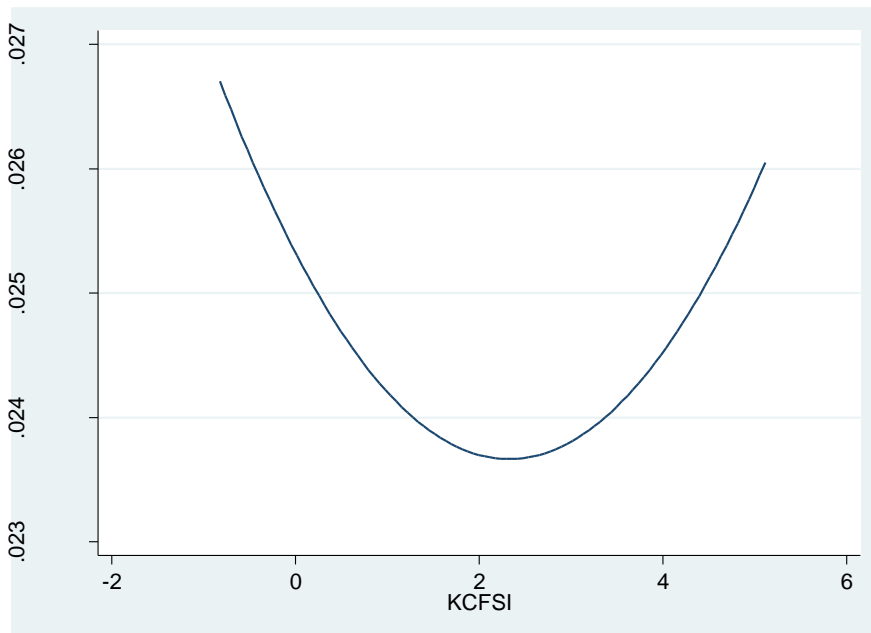
Source: Trombetta and Imperatore (2014)

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