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How the New Standards Are Reshaping the Investment Industry

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Mario Comana
Department of Business and Management
LUISS Guido Carli University
Rome, Italy

Daniele Previtali
Department of Business and Management
LUISS Guido Carli University
Rome, Italy

Luca Bellardini
Department of Management and Law
University of Rome "Tor Vergata"
Rome, Italy

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Chapter 1
Introduction

> *If you destroy a free market you create a black market [...] If you make ten thousand regulations you destroy all respect for the law.*
>
> (Winston Churchill at the House of Commons, 3 February 1949)

Almost every time a financial crisis occurs, we witness a profound revision of that-time legislation. Over the last years, a number of analysts and institutions have sought to explain the crisis, its origin, its development, and its consequences. They have highlighted several shortcomings: inter alia, various distortions of the regulatory framework have been considered as co-responsible for the problem. It happened after the depression ignited by the 1929 crash, as well as following the Latin American crises of late Seventies. Nowadays, in the aftermath of the *Global Financial Crisis* (GFC) peaked in 2008, that story is repeating one more time.

It is difficult to attribute the reasons for complex phenomena such as financial crises to a well-identified single cause, whether it be of an economic or legal nature. More often, a whole range of circumstances contribute to the inception and development of the problem, and deserve to be analysed through a holistic approach. In the most recent episodes we observed a sort of accumulation phase of imbalances that eventually exploded, triggered by a single event. This is the case of the GFC, commonly associated with the securitisation of subprime mortgages and their "silent" dissemination in investment portfolios worldwide.

Of course, this was neither the only cause of the crisis, nor the most important one. We would rather look at the technical causes of the crisis as the outcome of several tensions, gradually accrued over time. Fiscal and monetary policy accounted for it, along with the attempt to prevent even the softest recession. The goal of a number of political actions, mainly but not exclusively in the United States, seemed to be in pursuit of a never-ending economic growth. Financial markets were key in the process, and several players had their own share of fault. Bankers, traders, brokers, investors, managers at financial institutions were incredibly prone to widen

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their activity, enlarging the size of their business (and bonuses, too). This was instrumental to achieving both their personal objectives and the political ones: in fact, a very dangerous alignment of interests took place.

And what about supervisors? We do not think they were part of an obscure conspiracy; yet, it is evident that the they have not been able to stop the process before it went too far, A large number of gaps had clearly opened in the regulatory framework, allowing the “avalanche” to be triggered. As we may see, it was the combination of several critical elements to yield a general imbalance which, having reached the breaking point, ultimately sparked the collapse. Moreover, while it cannot be thought that a single cause led to the crisis, we can even less believe that the inadequacy of the regulatory framework can be the basis for all such connected events. Much more likely, a series of legislative imperfections—more or less serious—allowed the accumulation of such imbalances. Might a better regulatory setting have limited—not avoided, perhaps—the outbreak and the propagation of the GFC? Probably yes. However, what went wrong can be known just after the flaws of the current regulatory framework have slowly arisen.

Nevertheless, the occurrence of a crisis is a good opportunity to start revising the regulatory framework, just as a car needs to stop at a service station from time to time for periodic inspection, and a house needs extraordinary maintenance. This type of intervention is more often of a preventive nature, while the rethinking of regulatory structures following crises often appears to be late, albeit its aim is to avoid a repetition of past mistakes and foreclose regulatory loopholes. Needless to say, this is a dutiful effort, of course, but doomed not to work, sooner or later. Crises, not only financial ones, often have common features and similar path of development; yet, they appear in different guises.

Responses have been numerous and apparently robust: they ranged from the thorough revision of the Basel Accords to the *European Markets Infrastructure Regulation* (EMIR, No. 648/2012) and, coming to the main topic of this book, the launch of the ‘Package’ made of the second *Markets in Financial Instruments Directive* (MiFID II, No. 2014/65/EU) and the *Markets in Financial Instruments Regulation* (MiFIR, No. 600/2014). However, we would be wrong in attributing all this legislative overhaul to the outbreak of the crisis. MiFID I was released in 2004 and came into force in 2008. Of course, in light of such timing, no co-responsibility can be attributed to it. On the other hand, it is also reasonable to think that, a decade after the first regulatory system was introduced at EU level, a profound revision had to be envisaged. The 2009 G20 summit, held in Pittsburgh, had already generated a number of comments and observations on the effectiveness of existing financial discipline, which were then taken into account in the design of MiFID II interventions.

Said Directive brings together the same objectives as its predecessor—namely, market stability and investor protection—while seeking to increase its effectiveness. While keeping its objectives straight, the emphasis shifts onto enforcement. The novelties are numerous and will be analysed in detail in the book. We just want to recall that MiFID I was inclined—above all—to increase the degree of competition in financial markets, foresee the requirements for the granting of the European ‘passport’, and enhance investor protection. Conversely, MiFID II basically aims at making the markets more efficient, resilient and transparent, and furtherly improving the relationship between intermediaries and their clients, by keeping the latter in even higher regard. The two MiFID waves should not be intended as separate, but rather two stages of a single journey. The stream of events occurred during the decade between them was of global proportions, and its intensity has few parallels in contemporaneous history. Thus, we can consider the MiFID II/MiFIR package as a tough yet necessary "stress test" of pre-existing discipline.

In this book, we also covered the way in which the Directive has been implemented, and the Regulation applied, across the leading European economies. A potential drawback of an intervention aimed at maximum harmonisation—as the Package undoubtedly is—lies in the fact that each country retains a significant degree of domestic autonomy in transposing EU rules into its domestic legislation. This is a serious concern, for it results in something more akin to a "patchwork" rather than a proper "framework", as it should be. This contributes to maintaining—and, perhaps, increasing—the segmentation between national financial markets (which is at odds with the goal of integrated financial markets in the EU). However, there is no viable alternative to this: on the one hand, the Member States are not expected to drop the remainder of their sovereignty in law-making; on the other, any piece of EU legislation deserves to be adapted to different contexts. In fact, the 'one size fits all' approach—entailing the application of exactly the same rules in each EU country—would face problems of application for several reasons:

(a) it would not comply with each country's pre-existing legislation;
(b) it would not be able to gather the peculiarities of each financial and social context;
(c) it could introduce some negative aspects in countries where a given aspect has been regulated in a more detailed manner. Upon its passage, MiFID I attempted to level the playing field, though results may have been disappointing. The Package still contains an effort to smooth cross-country discretionary implementations; yet, we cannot reasonably deem such discrepancies to have been fully overcome.

The aim of this book is to provide, by proposing a detailed discussion of the new regulatory framework brought by the Package and its implementation, useful thoughts to shape a broad vision on how European financial markets could evolve and the financial intermediaries might interpret the new role the Package assigns to them. The approach to the analysis is manifold:

- describing the content of the new Package rules, which came into force on 3 January 2018, and discussing how they address the concerns raised by the GFC (also, compared to pre-existing legislation) as well as the theoretical implications from a EU-wide perspective;
- comparing different implementation processes and results in different domestic frameworks (among the leading EU countries, *plus* the UK), each one endowed with its own features in terms of structure of financial markets, as well as the intermediaries' conduct and performance;

- investigating the likely impact of the Package upon its various recipients, with a focus on the banking industry; in particular, this will take into account not only ‘direct’ effects, such as additional compliance costs, but also ‘indirect’ ones, such as the potential reshaping of business models.

In the light of this, the book is divided into three main parts:

– Chapters 2 and 3 provide an overview of the framework designed by the Package, which is a pillar of the EU ‘single rulebook’ as far as the regulation of financial markets is concerned;
– Chapters 4–6 go into detail in respect of the relevant content addressed by the Package;
– Chapters 7 and 8 are specifically devoted to analysing how the Package has been implemented across the largest countries in the Eurozone, *plus* the UK, and explaining what might be the expected impact in terms of banking business.

Chapter 2 provides an overview of the most salient changes occurred in the wake of the GFC in terms of new markets and instruments arising, the intermediaries’ business models being disrupted, and negative spill-overs affecting the whole of the economy. This is done by making reference to the Recitals of both the Directive and the Regulation, by highlighting the development of OTC transactions and the subsequent increase in the overall level of risk, as well as the growing dualism between multilateral, “formal” trading venues, on the one hand, and bilateral, mostly unregulated ones, on the other.

Chapter 3 deals with the relevant changes in the regulatory framework and highlights how MiFID II differs from MiFID I, with regard to trading venues, instruments and entities affected by the new legislation, as well as the changes to the supervisory architecture. This is done by highlighting the legislative path undertaken and explaining the three-pillar content addressed by the Package (product governance, product intervention, rules governing the interaction between intermediaries and the clients), how they deal with specific issues, and how their enforcement is put into practice. In particular, this last point is treated by explaining the rationale behind including certain rules into the Directive rather than the Regulation, and vice versa. Moreover, we focus on the provisions entailing a close cooperation between different supervisory authorities. Finally, we discuss corporate governance and risk management issues, as well as those dealing with investor protection and transparency to clients, which are highly significant in order to ensure an efficient implementation of the principles inspiring the Package.

Then, we go on investigating how exchanges work: trading venues, algorithmic and high-frequency transactions. So, in Chap. 4 we discuss the functioning of exchanges, in terms of the features of different types of trading venues (inter alia, the role of newly-introduced OTFs is debated), the technology behind transactions (which is increasingly shifting towards algorithmic and high-frequency solutions, often seen as a potential threat to systemic stability) and some regulatory tasks (e.g., the platforms being required to ‘self-assess’ themselves by means of a stress test).

Also, we devoted a specific part to market platforms whereby stocks of small and medium-sized enterprises (SMEs), so-called 'SME growth markets', are traded.

Chapter 5 is aimed at discussing the wide regulatory framework, introduced by means of the Package, regarding *pre-* and post-trade transparency obligations, aimed at reducing information asymmetries and contributing to the overall 'market infrastructure'. In particular, we devoted a special attention to waivers and deferrals, which are critical in order to assess the likely impact of these new rules. As far as derivatives are concerned, we underline how the Package is consistent with another seminal piece of legislation—namely, EMIR—enacted in the wake of the GFC.

The last part of the book, as we have ideally divided it, is completed by the analysis of the investor-protective framework of the Package, through a number of regulatory provisions from client categorisation to best execution. In doing so, we analysed the major changes occurred in investor protection—which is one of the broader aims of the whole of MiFID legislation—such as the *know your merchandise* rule. In fact, although the traditional breakdown of clients into 'retail', 'professional' and 'eligible counterparties' has clearly been preserved, some relevant provisions about product governance and product intervention (i.e., in a sense, the core of the Package rules) have been newly introduced. This is expected to dramatically reshape the relationships between intermediaries and their clients, carrying investor protection at the highest level in European history, in a context where other exogenous factors are negatively impacting the profitability of the industry of investment services.

Then, we propose a cross-country view of the implementation of the Directive. We compared the latter, along with the enactment of MiFIR, across the largest EU economies (namely Germany, France, Spain, Italy, and the UK). This is done by underlining the connection between the different characteristics of financial markets and the response to the crisis and macroeconomic shocks in general, on the one hand, and the stances held in respect of Package-related issues, on the other.

At this point in the story, we discuss the effectiveness of the Package vis-à-vis MiFID I. While the latter was widely welcomed as a modernizing novelty, nowadays the financial community tend to worry about the 'legislative flood' witnessed during the last decade, whose capacity to fulfil its goals is widely questioned.

Moreover, we analysed some of the greatest concerns for the financial intermediaries affected by the Package: from the rising of additional compliance costs to the consequences of a widened cost disclosure to clients, from the change in distribution channels up to the duty of separating the research-related revenues from others: all issues that could likely reshape the business models of many entities. We focused mainly on technological disruption, compliance and disclosure costs, and the changes in distribution channels and business strategies.

Chapter 2
Why the Package? Financial Markets Before and After the Crisis

Abstract The chapter provides an overview of the salient features of the *Global Financial Crisis* (GFC), which may be seen as a fundamental cut-off point in the legislation of markets, both in the USA and the European Union. The trouble interrupted a trend of apparent long-term growth, rapidly spreading negative spill-overs onto the so-called "real" economy. When the GFC broke out, new instruments and activities had arisen; new subjects had entered the investment industry; and regulators were desperately trying to keep on track with technology-driven financial innovation. Supervisors have powerfully intervened to halt the crisis: in particular, they have addressed some structural issues in finance (lack of transparency, insufficient protection afforded to investors, etc.). As a result, the business models of several intermediaries have been disrupted. The chapter discusses the main macro-financial characteristics of the years usually labelled as *Great Moderation* (GM): 'easy credit' practices, liquidity created by means of assets furtherly revealed to be illiquid, and a loose monetary policy fuelling the other two phenomena. Then, it analyses the propagation of the GFC, with a focus on credit institutions and the threats (e.g., shadow banking) that traditional players have been facing over recent years.

2.1 A Brief Overview of Financial History Before the Global Financial Crisis

Throughout the eight decades before the GFC, many economists have repeatedly acknowledged that modern-day economic science is the result of the debate which followed the Great Depression, stemmed from the 1929 Wall Street crash (so-called *Black Tuesday*). Once the Second World War had marked a discontinuity in the prolonged, worldwide recession, the Bretton Woods Agreement—reached in the summer of 1944—showed that the shift in paradigm was a matter of fact, not merely an academic speculation. From the deep crisis of the Thirties, the global economy had come out with lower reliance upon the self-regulating virtues of markets, a renewed belief in the interventionist role of both governments and

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central banks, and an urgent need to endow the international monetary systems with a 'safety net' given by the interconnection between currency issuers and their mutual foreign-currency reserves.

This was granted under the aegis of a dollar-centric scheme in place of the old, inadequate 'gold standard', which had so restrained monetary policy from effectively counteracting the recessionary phase by stimulating demand (Keynes 1936). At that time, many believed that the new era of open markets at a global realm, coupled with the larger role attributed to national authorities, would have yielded a steady, sustainable growth, also avoiding future crises. Taken as a whole, the sixty years afterwards have apparently proven this conviction to be well-grounded. The new doubts on the efficiency of the international financial system, cast in the wake of the oil shocks occurred in the Seventies, were contrasted by a furtherly loosening monetary stance—enshrined in the 1971 Smithsonian Agreement—and, most importantly, by the tide of financial deregulation in the Eighties, which spurred a new era of optimism and growth. The sudden 1987 Wall Street crash (so-called *Black Monday*) did not ring any alarm onto policymakers and supervisors, albeit some started questioning the role of technology as a crash amplifier (Mitchell Waldrop 1987) and, even before the GFC fully deployed its effects, some posited that the systematic underestimation of risks inherent to financial exchanges paved the way for such a 'black swan' event (Bogle 2008), though with the clear benefit of hindsight.

The confidence towards the wealth-creating attitude of financial markets was undoubtedly strengthened by the period of remarkable stability—termed *Great Moderation* (GM)—comprised between the end of the Eighties and the beginning of the new century. Despite the overlap of the post 9/11 crisis and the burst of the *dot-com* bubble, it peaked right before the first GFC symptoms were detected. During such period, financial activities were boosted by a sustainable growth rate in output, whereas interest rates and prices kept at substantially low levels. An early proof of the fact that 'moderation' was a worldwide reality, rather than just a market-friendly slogan by Alan Greenspan's Federal Reserve, is given by the fact that early upward trends in Eurozone prices—immediately following the introduction of the euro—did not translate into any substantial inflation rise, but were instead absorbed relatively soon, notwithstanding an increase in inflation uncertainty and a break in the classical association between the two variables (Caporale and Kontonikas 2009). The reason behind such observed path can be easily explained in terms of agents' expectations: after an initial 'crowding out' effect deriving from the introduction of the new single currency framework, investors started perceiving that the European Central Bank's (ECB) policies were as reliable, for financial stability purposes, as the *Bundesbank*'s ones had previously been (González-Cabanillas and Ruscher 2008). In summary, the implementation of the Economic and Monetary Union (EMU) can be reasonably regarded as an element contributing to the GM worldwide. Hence, neither the United States, nor the EU, nor any other large economy, was truly prepared to what was about to come.

The literature on the GFC causes is understandably huge. However, before focussing on issues closely linked to the functioning of financial markets and the intermediaries' risk-taking behaviour, we should take into account the 'big picture' of those *macro* trends which explain the widening phenomenon of globalisation. First, technological progress should be consistently taken into account. However, as far as monetary flows are concerned, it deploys its effects in a twofold direction: on the one hand, in a direct manner, it enhances financial transactions—which becomes speedier and more efficient, with a reduction in counterparty risk—and, thus, has a positive impact on the frequency, the number and the volume of transactions; on the other, it also plays an indirect role by enlarging the opportunities that subjects in *surplus* match with those in *deficit*, something which is commonly deemed to be the raison d'être of markets and intermediaries. Via the payment system, this yields positive spill-overs onto so-called 'real' markets, i.e. those for goods and non-financial services. Such mechanism works particularly well in underdeveloped and developing countries, which can benefit from a 'catch-up effect' due to their poor starting conditions.

Drawing from the wealth-creating upheaval associated with globalisation, Jagannathan et al. (2013) build up a very interesting theory on how demographic trends—directly stemming from technological progress—greatly contributed to the GFC. The authors maintain that, thanks to such development, a significant stock of human capital was formed in emerging countries, with the new labour supply eventually flooding advanced economies. According to the authors, this phenomenon might have resembled what the discovery of America meant to major European countries, suddenly dealing with the availability of large resources. Moreover, since most of international currency reserves are either denominated in dollars or pegged to the USD, the growing American current account deficit—determined by the export-oriented growth in developing economies—came in association with a 'liquidity flood' which soon revealed to be fiscally unsustainable, at least in the long term, for it magnified the debt burden as a proportion of GDP.

The surge in foreign workforce yielded a shock that was hard to absorb: first, these people could not channel savings towards their domestic financial system, still suffering from underdevelopment; second—as widely acknowledged by the extant literature—central banks in developed countries either failed to use their powers, as exchange rates did not adjust along with capital flows, or even burdened the macroeconomic environment with wrong-headed policies, such as the interest rate rise pursued between 2004 and 2006 (Turner 2017). The comprehensive result was what Ben Bernanke first labelled as the *Global Savings Glut*, which in the USA ultimately created the perverse incentives lying at the basis of the GFC.

In fact, this overwhelming amount of savings was mainly addressed to risk-free securities (e.g., US sovereign bonds), making interest rates decrease and, thus, fuelling the GM landscape where such incentives arose and propagated. However, the consequences would have been not so heinous had the 'gluttony' been directed at Government issuances only, without pouring into the private sector. In the end, unfortunately, this was the case: given the contemporaneous surge in housing and the upward pressure in markets for residential mortgages, so that a real 'bubble' was eventually created, many financial institutions centred their business around the securitisation of 'subprime' debt, i.e. the one owed by subjects of poor creditworthiness. Such borrowings were supported by a very favourable environment, dominated by large Government-sponsored enterprises whose main objective was issuing high-seniority guarantees to residential mortgages: namely, the so-called *Fannie Mae* and *Freddie Mac*. Moreover, 'cheapness' was not circumscribed to the 'easy credit' for real-estate investments but affected consumption goods as well. As a result of these forces, notwithstanding the huge amount of savings available to be invested, the savings rate fell below 2% for the first time since the Great Depression (Jagannathan et al. 2013).

While this occurred in the USA, China experienced opposite movements, thanks to the tide of liberalising, market-oriented reforms, implemented in a period between the end of the Seventies and the two following decades. Along with substantive migrations from rural to urban areas, the savings rate in the latter ones surged from 73 to 83% between 1995 and 2007; besides, the percentage of consumer loans over total credit extended by commercial banks decreased in favour of durable goods, whereas the vast majority of such loans was oriented towards residential housing. As a result, the Chinese annual flow of savings grew from less than one third to 130% of American ones between 2000 and 2007, something which can be regarded as another confirmation that globalisation spurs convergence rather than widening pre-existing divides. In this case, however, the overall effect did not yield positive spill-overs onto macroeconomic dynamics in the West. While immigrant workforce positively contributed to the expansion of retail financial services, as the living standards of once-indigent households significantly soared (not only in recipient countries but even in their fatherlands, via remittances), a sharp wealth decline affected those American families whose workforce was neglected in favour of 'close substitute' foreign one. Therefore, it is a matter of fact that the comprehensively good performance of the US economy in terms of output over the 2000–2007 horizon—even more evident if we rule out the short recessionary phase at the beginning of the Millennium—actually conceals a dismal reality of impoverishing middle and working classes, which had always been central to the expansion of American credit markets. Nowadays, we are fully aware of even the political long-term consequences of these trends (Fukuyama 2016), ended up with a de facto redistribution of income from citizen workers to foreign ones in the USA, driven by the latter ones' higher propensity to saving.

Counterfactual history might tell us what would have happened had the deterioration in US households' wages translated into shrinking financial activities. However, such a plain consequence never materialised. While the stock market stayed substantially flat, the credit boom did not recede: driven by the growing easiness of getting financed, consumption kept soaring in excess of disposable income. Right before the GFC broke out, the ratio between mortgage debt and wages—which is a proxy of households' leverage—had approximately doubled since the Eighties; moreover, it showed that the aggregate amount of financial obligations owed by American households significantly exceeded their total income. As already anticipated, the most striking evidence of this trend is given by house prices: in 2007, they peaked both in absolute terms and as a growth rate from the previous year (15%, compared to a value around 5% at the end of the Nineties).

Conversely, the percentage of home equity dropped from 52% over the 1980–2000 horizon to 29% between 2000 and 2007. The S&P/Case-Shiller index—based on price differences between repeated property transfers of ownership involving non-related people—gained more than 80% between 2000 and 2007 (first quarter data). Besides, despite such individual behaviours had been captured by US official statistics, empirical figures allowed for very little awareness on financial institutions' mounting risk exposures (Palumbo and Parker 2009).

Jagannathan et al. (2013) link these macroeconomic conditions to what they call 'permanent income hypothesis': namely, American households might have wrongly believed that house prices would have continued soaring, also thanks to a very favourable monetary policy environment (on which we shall come back soon). Confident in a steady asset revaluation over time, and notwithstanding the personal income drop, many people thought that their personal wealth would have expanded, or at least kept stable. In 2007, however, such skyrocketing trend backfired, as property values had become largely unaffordable. A suddenly narrowing demand prompted a large reduction in prices; in turn, this yielded an increase in the borrowers' probability of default: in fact, if the present value of outstanding debt is higher than the current value of the underlying asset, the avoidance of mortgage payback becomes the economically optimising choice.

2.2 What Went Wrong: The Dissemination of Risks

During the housing boom, the subprime mortgage exposures had fuelled the market of securitisation, creating that huge amount of risk exposures that, once the bubble burst, would have pushed several large conglomerates on the brink of collapse. The widely acknowledged mechanism has been channelled through the so called 'shadow banking system' which still keeps great relevance over financial activities worldwide. As already anticipated, in the US, it was propped up by the housing boom and the generalised surge in the demand for low-risk investments, which was so contrasting with 'easy credit' policies. In fact, asset-backed securities (ABS) originated by the transfer of banks' "dubious" financial claims onto special-purpose vehicles (SPVs), which then 'securitised' them by issuing debt securities, were generally welcome by credit rating agencies (CRAs). These institutions had no problem in basing their assessment upon the ostensible solvency of originator banks. Actually, even *senior* tranches incorporated default risks much higher than what CRAs deemed to be. In fact, ABS markets provide additional evidence on the trade-off between efficiency and instability as the two effects of progress in the financial industry.

Up until 1990, ABS had been strongly standardised, as the so-called 'Agency mortgage pools' were largely predominant. Afterwards, a number of new, differentiated instruments, increasingly tailored upon investors' needs, started circulating. Moreover, it was not uncommon for such a derivative to be collateralised again, and repeatedly, in an attempt to diversify away the interest default risk posed by the original borrower's inability to fulfil its obligations. Within such "enveloped" debt, we may find instruments like the collateralised debt obligations (CDOs) or the financially simpler yet opaque credit default swaps (CDS), the latter representing the purchase of insurance against an obligor's default. After the short crisis occurred at the beginning of the Millennium, they experimented a take-off. In 2006, 'Agency' ABS had already been surpassed—in market share terms—by 'private label' ones, i.e. those stemming from financial innovation and more closely addressing the counterparties' needs.

At that time, however, not only home prices turned out being a bubble and, thus, collapsed due to insufficient demand: the same occurred in ABS markets—and, more intensely, in 'private label' ones, as investors started realising how poor was the quality of underlying debtors. It was ultimately exposed what had been a despicable attitude to ignore the intrinsic riskiness of lending, because of the 'systematic' underestimation of default probabilities (Foote et al. 2008; Gennaioli and Shleifer 2010).

This perverse financial mechanism, which for the most is at the root of the GFC, has been the result of several determinants and wrong incentives which are clearly resumed in the contribution of Rajan (2006). Note that this paper helps drawing a picture of the dissemination of risks before the GFC became known to the financial world.

This phenomenon would have not taken place so broadly and rapidly without the role played by technology and financial innovation (see par. 3 which deepen this topic). Regulators are often "followers" of financial markets when addressing new issues which emerge spontaneously, merely as a result of market forces. This latter, for example, is the case of 'high frequency trading' (HFT), arisen thanks to the outstanding progress experienced by computer science in the last forty years, starting from a time in which the dematerialisation of securities was still quite limited. Nowadays, all transactions are executed on digital platforms; conversely, paper has almost completely disappeared from financial markets (at least in developed economies).

An essential point regarding the dissemination of risks in the system is then represented by the wrong incentives given to insiders, so as the poor control by the outsiders (and sometimes by regulatory authorities). They are basically driven by compensation policies. Incentives to the management (e.g., the delivery of stock options, or even the reverse link between competitors' results and compensation) have made bank managers orient their choices toward high-risk, high-return investments. Although the US legislator had already faced this issue via the 2002 Sarbanes-Oxley Act—enacted in the wake of the Enron scandal, the GFC showed that short-termism, labelled *the infant illness of capitalism* (Onado 2017), had not been over yet. The unescapable trade-off between immediate good performance, on the one hand, versus sound and prudent management over a longer horizon, on the other, seemed to have been addressed by ignoring lessons from the past and stubbornly following the latter, which might bring benefits to the management but, also, is more likely to impair shareholders' wealth in the future. Therefore, short-termism has to be deprecated not only from an 'institutionalist' standpoint, which regards firms' primary objective as that of serving some social purpose (Asquini 1959), but, also, from an approach inspired by the Chicago School thinking, which deems a firm's objective to be value creation for its owners (Friedman 1962).

The relation between incentives and controls deals more generally with corporate governance issues (among which executive compensation), but deepening such issue is outside our scope. Nevertheless, all the major issues related to the business of financial intermediaries are significantly affected by corporate governance and, also, can trigger governance changes (Dyck et al. 2008). This may be true in general, for each kind of firm; in the financial industry, however, this holds a fortiori, as regulators are often endowed with the duty of overseeing the internal governance of supervised entities and might eventually be regarded as a "third party" interposing between the two traditional sides (that is, the principal and the agent). In respect of this, the alignment of incentives is clearly the ultimate objective. The literature has widely investigated the differences between banks where managers hold little stakes and those where they are, conversely, large shareholders, thus being more akin to behave in an aggressive, profit-maximising way (Saunders et al. 1990). The GFC has shed a sinister light on this issue. Even the "golden age" of GM, already doomed by the Enron scandal, was marred by some 'incentive misalignment' cases. They show how Rajan (2006) was right—at least partially—in viewing increased riskiness as the dark side of financialization. At the same time, we should not forget the good brought by such phenomenon, which—by allowing for more largely available information, greater standardisation within contracts, and higher diversification between them—may be summarised into enhanced lending and entrepreneurship—in turn yielding faster growth—and reduced transaction costs (Jayaratne and Strahan 1996, 1998; Black and Strahan 2001). The overall result is increased profitability for financial intermediaries but, also, a growing 'commodification' of transactions (Jagannathan et al. 2013).

While denouncing wrongly-designed compensation, Rajan (2006) issued another warning on how the 'perfect storm' in the financial sector was actually imminent. In his view, which would have proven right, managers were strongly subject to the so called *herding behaviour*. In such case, the irrational component is so prevalent that business psychology, though well aware of the problem, fails in dissuading decision-makers from following their peers. In a period in which stock markets are not particularly bullish but do preserve investors' wealth by ensuring long-term upward trends (such as those to which we refer in this chapter), imitating others' choices is not only aimed at seizing good returns by bearing relatively low risk: also, it describes an optimising strategy under a game-theory framework, as otherwise losses would be severe.

By looking at interest rates rather than stock returns, Rajan (2006) also noted that the most dangerous situation is the one in which a period of high rates, like the one ignited by oil crises and subsequent inflationary spirals during the Seventies and early Eighties, gets followed by times in which rates become significantly lower, like during the GM. In fact, on the one hand, this is an incentive to 'searching for yield', clearly pursued by bolder risk taking; on the other, it pumps asset prices up, thus prompting a sharp and messy realignment to fundamental values. This might theoretically occur in a very short time: the GFC showed that it required something like twenty years to fully deploy its effects; yet—with the benefit of hindsight—no one can deny that Rajan's (2006) warning has shown close correspondence with reality.

Another "big issue" is the one of liquidity, whose creation is universally regarded—at least from an 'institutionalist' point of view—as one of intermediaries' major roles in the financial system. Nowadays, in particular, liquidity creation is no more at a "local" level, but—thanks to the free circulation of capital—has rather surged at a global one. It is no doubt that the GFC has somehow impaired these mechanisms, mainly because of the increasing opaqueness of credit institutions' balance sheets. Moreover, such problem is self-propelled: more "complicated" assets—e.g., those originated by securitising debt—discourage shareholders from exerting due control upon the management, who is responsible for them; in turn, this lack of control de facto increases the likelihood that the latter be tempted to undertake risky operations (Diamond and Rajan 2009).

Another issue which has characterised financial markets during the 'easy credit' period is the substantial failure in efficiently transferring risk. As a matter of fact, the reduction in certain kinds of risk—e.g., borrowers' default one—cannot be pursued fully, but inevitably copes with the reality of undiversifiable, "physiological" remaining portions. Moreover, banks might even be willing to retain some of that risk: e.g., for 'signalling' purposes, related to both asset quality and the commitment to closely monitor the obligor. As evidence of such failure, Rajan (2006) found that banks' earnings' volatility decreased only in the first half of the Nineties, after which it started surging, and eventually peaked during the early-Millennium crisis; conversely, looking at long-term trends in many advanced economies, the 'distance to default' comprehensively shrank over the whole GM horizon.

Also, the growing riskiness of financial markets has directly stemmed from the 'reintermediation' process. Still nowadays, banks are leaving room to investment firms or they are enhancing and enlarging their asset management divisions. In fact, the provision of asset management services by larger firms shows clear advantages in terms of economies of scale. In that industry, the close link between managers' compensation and assets under management has been proven to act as an incentive to risk-taking. The market had already warned the asset management industry well before the GFC broke out. In mid-Nineties, for instance, market mutual funds mainly invested in derivatives had been hit by a materialisation of tail risk: they had exposed themselves to it by selling guarantees against companies' default, something which eventually occurred when the Fed tightened its monetary policy.

At the end of the GM, Rajan (2006) had already understood how, at that time, the situation was closely resembling the events of a decade before. In fact, the actual size of risks incurred by protection sellers was widely underestimated. Nowadays, the increase in the world's riskiness may be summarised by looking at how forecasting future 'states of nature' in financial markets is becoming extremely difficult (or, at least, much harder than in periods when the economy was not as "financialised" as today). Correlations that may seem very trivial, intuitive, or established in market mechanisms, might rapidly turn to unexpected, surprising, counter-intuitive relationships when the trend gets reversed.

Very few voices—like Rajan (2006)—had been raised against many asset managers' choice to bet against insolvencies, often regarded as events with almost zero probability. We are now aware of the tails being much fatter vis-à-vis the pre-crisis era. Between 2007 and 2008, however, too many retail investors—not fully aware of the bold strategies pursued by the funds in which they had put their money—discovered such dismal reality at their own expense. As of the relationship with the clientele, the lack in transparency exposed by large financial conglomerates—suddenly come on the brink of default—is one of the topics most widely addressed by the Package. Also, it is tackled by other fundamental pieces of EU legislation like Directive 2011/61/EU, commonly known as 'UCITS V'.

2.3 The Reaction of Authorities: Shaping a New Regulatory Framework

The idea of a growing divergence between the evolution of financial markets, on the one hand, and of regulation, on the other, is nowadays largely accepted. It is probably the result of years in which, given the GM macroeconomic framework, many authorities had perceived the financial environment as relatively safe and, thus, needless of potentially distorting interventions. At a European level, the most evident result of this approach is probably the Directive 2004/57/EC, commonly known as 'MiFID I'. Come at the end of a decade in which the EU legislator had made various efforts in an attempt of regulating a growing industry, it was mostly welcome as the definite, liberal-oriented, soft-handed innovation against many domestic laws, still anchored to a very restrictive view of financial intermediation. The subsequent decade has instead witnessed the opposite approach, plainly due to fading GM and mounting GFC.

It is no doubt that a sound institutional environment, whereby minority shareholders—as well as creditors in general—be adequately protected, is particularly beneficial to financial markets. In fact, it helps reducing moral hazard in many principal-agent relationships: as a result, only "physiological", undiversifiable ones continue affecting the industry. The efficacy of institutional elements in lowering risk—both at an idiosyncratic, *micro*- level and a systemic, *macro*- one—has become increasingly lower over time. We reviewed the mechanisms which have ended that beautiful 'alchemy', to use a phrase from a former Bank of England governor (King 2016).

First of all, as highlighted by Kim et al. (2013), we should try to correctly define what happened in the economic system, well beyond the generic and simplistic 'crisis' label. Out of the three types of crisis that can be detected—namely, the 'banking', the 'currency' and the 'debt' ones—Eurozone countries (actually, with large variability between them) have experienced the first and the third one, while being spared from the second thanks to the monetary union. In general, globalisation, which means growing economic interdependencies, has made somehow more difficult to disentangle the actual characterisation of a period of financial turmoil—whether of banking, currency of debt origin, as the three may well overlap and come as closely intertwined. This probably occurred with one of the heaviest economic troubles of the last two decades: namely, the Argentinian crisis. Although financial innovation has significantly exceeded the industry's expectations, the regulatory burden on financial entities has been growing over time. We can easily infer this by looking at the various rounds of the Basel Accords, sponsored by the Bank for International Settlements (BIS).

Kim et al. (2013) found that traditional prudential regulation measures, such as capital and entry requirements, actually succeed in reducing systemic risk by lowering the likelihood of banking crises. The dark side of the story, however, is that currency crises become a higher threat wherever this kind of restrictions get applied. This is also the result of credit institutions being held by the Government, which is an indirect blow to the free circulation of capital and, thus, yields an inefficient allocation of resources. Such mechanisms are somehow opposite to those ignited by financial innovation, which—by opening immaterial borders to new products and markets—exerts a moderating effect on the probability of a currency becoming either too scarce or too common in respect of the actual needs. This helps keeping the currency's value around its 'equilibrium price', given by the "true" interactions between supply and demand in international markets for funds. Conversely, ad hoc powers attributed to supervisory authorities seem to be beneficial, provided they are not used in excess of what is needed: lest, there would be no difference vis-à-vis 'structural' supervision, i.e. the one endowed with the right of deciding how to shape the market structure.

As far as capital requirements are concerned, the Basel ones have given birth to a large debate over the issues of their procyclicality. In fact, as banks are more likely to experience troubles in periods characterised by excessive risk-taking, they also have to set apart substantially higher regulatory capital when they would be more in need of it. Conversely, although good performance is more likely associated with a prudent approach to credit policy, it may often come along with lower levels (or even quality) of regulatory capital. Of course, these tendencies harden difficulties and enhance the goodness of a bank's financial results, with the overall effect ranging from a presumably strengthening of the 'savings glut' during booms and a severe credit crunch during busts. The GFC has dramatically exposed the drawbacks of such procyclicality, and regulators have intervened to heal it. The Basel III Accords show a focus on preserving a credit institution's liquidity as well as countering the procyclical effects of regulation by means of an ad hoc capital buffer. It is intended to mitigate the macroeconomic spill-overs onto banks' profitability—but, also, the economy as a whole—stemming from resources being driven away from investments to fulfil regulatory obligations. Of course, this negatively reflect onto business which finance themselves mainly via the banking credit channel.

Anyway, the third round of the Basel Accords is not the only source of soft law in respect of liquidity, as the Committee of European Banking Supervisors (CEBS

2007) swore to establish a framework of sound and prudent management in respect of it, centred on liquidity buffers and—most importantly—contingency plans to be enacted in case of deteriorating conditions. In this regard, central banks have come to play an increasingly wide role: for instance, the ECB is allowed to act as a 'liquidity provider of last resort' in case of severe banking crises, when the sudden shrinking of liquidity may put the whole economic system into serious trouble. This precisely occurred in Greece at the beginning of summer 2015, when the ECB opted for mobilising its Emergency Liquidity Assistance (ELA) tool to momentarily fund Hellenic credit institutions, while negotiations went on at a political level.

Nevertheless, a study like Kim et al. (2013) should be taken with caution for various reasons. First, that study focussed on banks exclusively and, also, it did not account for the possible time lag between banking and debt crises. Moreover, the intertwining of different aspects and kinds of crises yields quite contradictory analytical results, which do not design any clear empirical evidence but should rather be taken into consideration along with specific countries and times, as contingent factors may exert great influence over a single trouble regardless of longer-term trends. In particular, debt crises may be linked to very long-dating causes, often dealing a lot with the country's economic history and structure and a little with political decision making. Hence, there is no easy answer at all, a fortiori if we consider that regulation is not a time-invariant factor, and that EU harmonising endeavours have not completely succeeded in creating a 100% level playing field: domestic frictions still remain, though being lower than in the past. In fact, Kim et al. (2013) found that one single prudential measure might be useful to pursue the intended objectives, whereas the simultaneous enactment of different ones may actually backfire.

In summary, regulators are exposed to the risk of unintended consequences yielded by their actions; and the more pervasive their role, the greater such risk. Of course, the opposite situation—namely, the absence of regulation or a very soft one—is likely to inject systemic risk onto the financial environment. In respect of this, remarkably significant is the role played by the so-called 'shadow banking', whereby institutions tend to exhibit high leverage because of the regulatory "light touch" they enjoy vis-à-vis banks but, also, because of the business they are usually involved with (e.g., issuing securitised debt). In particular, the EU legislator has its own responsibilities not to have stopped such a widening phenomenon, as no harmonising legislation has ever been passed. The securitisation industry, along with a relevant portion of the shadow banking universe, are currently subject to domestic rules only. Hence, EU supervisory authorities are not endowed with adequate tools to avoid the proliferation of systemic risks onto different segments of the financial system, first, and the economy as a whole, then.

As we shall discuss later, the Package shows a remarkable commitment towards limiting financial transactions executed over platforms which do not ensure minimum transparency requirements (e.g., so called 'dark pools', as well as OTC markets). Conversely, it has substantially renounced to intervene on an entire industry, whose existence is fundamental to the *smooth and orderly functioning* of the financial system, but which are increasingly becoming a problem, given their exploitation of large regulatory arbitrage opportunities. More in general, Kim et al. (2013) show that low regulation disciplining the entry of a new institution in the market may ultimately be detrimental to stability. This view has been much more commonly expressed after the GFC; in contrast, the GM literature had showed a completely opposed conviction, especially in respect of the association between entry requirements, on the one hand, and efficiency as well as competition, on the other (Shleifer and Vishny 1998).

As far as the efficacy of regulation is concerned, what we should duly take into account is, also, the so-called 'financial structure' of a country or a group of countries. This mainly relates to Levine (2002) classification as 'bank-based' *versus* 'market-based', depending upon the role attributed to the different types of intermediaries. Of course, from a quantitative analysis standpoint, it would suffice to look at total assets held by each category of financial entities (that is, monetary and financial institutions—abbreviated as MFIs—versus others). However, this would probably fail to catch the characteristics shown by a financial system where one funding channel is favoured over the other, yet the two coexist. This is plainly the case of every advanced country, as only a few underdeveloped ones are nowadays closed to financial markets and, thus, exclusively rely on credit.

There are many benefits associated with firms issuing debt and capital instruments rather than applying for loans: most importantly, they relate to greater incentives to transparency, good internal controls, wise investment decisions, greater financial reliability, and so on. Nevertheless, market-based systems—*rectius*, entities—show less "committed" shareholders because of the smaller stakes they hold, as well as—conversely—more powerful managers, more likely to become 'entrenched'. If we turn this problem to the financial industry, we may easily understand how relevant it is.

Kim et al. (2013) shed a sinister light, also, on the role of financial innovation in terms of systemic stability. In fact, while it reduces the likelihood of currency crises as it clearly helps mobilising capital by narrowing information asymmetries, it also enhances the likelihood of banking crises. This is due to its role in determining excessive risk taking via loose credit policies, which ultimately increase leverage. In the abovementioned study, the drawbacks of a market-based capital structure are evident in respect of currency crises: they are thought to yield sudden, large shocks to capital flows, such that subsequent adjustments do not manage to fully absorb them and stop the propagation from exchange markets onto other segments of the financial industry. Lestano et al. (2003) have also shown that a rapid growth in savings and liquidity is, still, more likely to determine a speculative attack onto the currency in which bubbling assets are denominated.

The idea that the GFC has not been the consequence of inherent weaknesses within the free economic system, but rather of some regulators' failure, is well rooted in the extant literature (provided that "ideology" be subjected to crude data, as it always should). Other than an improper design of incentives—which clearly played a significant role in yielding those unintended consequences which we had referred before, some authors underline the striking 'lack of expertise' on the supervisory side (Moshirian 2011). The focus of the Package—and, in particular, the Regulation—onto coordination between authorities, their enhanced powers, and the stress on people's individual requirements to play direct roles in financial oversight, describe the attempt to solve the issues dramatically exposed by the sequence of troubled intermediaries. Unfortunately, this is consistent with Gordon's (2000) view that *regulation comes after disasters*. For most of the time, the isolation of such rules at a national level had diminished the strength of the global response to a global turmoil. Although the EU regulatory framework—based upon a financial 'single rulebook'—was partially ongoing, and in spite of the American efforts at a federal rather than a State level (not unlikely what had been done during the Thirties), there was a faint global coordination. The G20 summit held in Pittsburgh (26–27 September 2009), though efficaciously tackling the matter of derivatives markets from a systemic stability standpoint, may be regarded as just a "late" response to a crisis which had already transmitted onto the so-called 'real economy'.

The lack of worldwide "integration" has left the financial system exposed to regulatory arbitrage phenomena, which can be something "ordinary" under a liberal international regime but is nowadays regarded with much greater suspect and might give rise to "retaliatory" actions by domestic authorities. In fact, before the GFC, regulatory competition was mainly "downwards": that is, jurisdictions battled over granting foreign investors looser rules, especially in case of large multinational conglomerates. The first seminal piece of EU legislation addressing banking subjects (namely, Directive 1989/626/EEC), by introducing the principle of mutual recognition coupled with home-country control, was undoubtedly reflective of such approach. After the GFC, this trend looks completely reversed. While a consistent supranational regulatory framework has not been achieved yet, competition between regulators has taken the opposite direction vis-à-vis the pre-crisis era. As a matter of fact, even the country which par excellence pursued deregulation—namely, the United Kingdom—has been discussing on which kind of regulatory approach to adopt once Brexit becomes effective. For the moment being, the two alternatives—a more investor-friendly environment versus strengthened requirements—are almost equally probable, in absence of clear indications regarding the overall direction to take. In a sense, the UK situation may be thought to resemble the one of the entire world, as protectionism is regaining ground in trade matters, yet many steps in that direction—aimed at rebuilding ancient commercial barriers—still look too dangerous to be definitely made.

Although many industries (e.g., food and beverage) are commonly deemed to suffer from "unfair" foreign competition due to excessive deregulation both domestically and abroad, financial services are even more intensely attacked by 're-regulators', as much of the criticism does not make any difference based on the "nationality" of financial entities. Hence, it does not come as a surprise that the area to which MiFID II is mainly addressed turns out being the relationship between intermediaries and their clients, shaped under the investor protection framework, rather than the increasingly cross-border business of many intermediaries. Conversely, supervisors seem to be still widely aware of the importance of keeping the cross-border operations of financial intermediaries as easy as they are nowadays,