

## Il termometro dei mercati finanziari (13 luglio 2018)

a cura di Emilio Barucci e Daniele Marazzina

14/07/2018 09:35



Continua l'iniziativa di Finriskalert.it "Il termometro dei mercati finanziari". Questa rubrica vuole presentare un indicatore settimanale sul grado di turbolenza/tensione dei mercati finanziari con particolare attenzione all'Italia.

Il termometro dei mercati finanziari						
13-lug-18	Legenda					
Valutazione complessiva	Calma		↑		in miglioramento	
	Turbolenza		↔		stabile	
	Tensione		↓		in peggioramento	
Mercati italiani	13-lug	06-lug	29-giu	22-giu	15-giu	Tendenza
Rendimento borsa italiana	-0.15	1.38	-1.20	-1.36	3.91	↔
Volatilità implicita borsa italiana	17.28	19.28	20.54	19.12	18.51	↑
Future borsa italiana	21800	21845	21505	21800	22095	↔
CDS principali banche 10Ysub	427.06	447.34	475.99	461.51	450.31	↑
Tasso di interesse ITA 2Y	0.70	0.86	0.73	0.91	0.67	↔
Spread ITA 10Y/2Y	1.86	1.86	1.96	1.80	1.95	↔
Mercati europei	13-lug	06-lug	29-giu	22-giu	15-giu	Tendenza
Rendimento borsa europea	0.18	1.56	-1.34	-1.81	1.67	↔
Volatilità implicita borsa europea	12.38	13.68	14.85	13.13	12.02	↑
Rendimento borsa ITA/Europa	-0.33	-0.17	0.14	0.45	2.23	↔
Spread ITA/GER	2.28	2.43	2.38	2.38	2.21	↔
Spread EU/GER	0.82	0.87	0.86	0.87	0.79	↔
Politica monetaria, cambi e altro	13-lug	06-lug	29-giu	22-giu	15-giu	Tendenza
Euro/Dollaro	1.17	1.18	1.17	1.16	1.16	↔
Spread US/GER 10Y	2.55	2.54	2.54	2.57	2.52	↔
Euribor 6M	-0.271	-0.269	-0.270	-0.268	-0.268	↔
Prezzo Oro	1242	1255	1251	1270	1281	↔
Spread 10Y/2Y Euro Swap Curve	1.02	1.01	1.03	1.04	1.07	↔

### Significato degli indicatori

- Rendimento borsa italiana: rendimento settimanale dell'indice della borsa italiana FTSEMIB;
- Volatilità implicita borsa italiana: volatilità implicita calcolata considerando le opzioni at-the-money sul FTSEMIB a 3 mesi;
- Future borsa italiana: valore del future sul FTSEMIB;
- CDS principali banche 10Ysub: CDS medio delle obbligazioni subordinate a 10 anni delle principali banche italiane (Unicredit, Intesa San Paolo, MPS, Banco BPM);
- Tasso di interesse ITA 2Y: tasso di interesse costruito sulla curva dei BTP con scadenza a due anni;
- Spread ITA 10Y/2Y : differenza del tasso di interesse dei BTP a 10 anni e a 2 anni;
- Rendimento borsa europea: rendimento settimanale dell'indice delle borse europee Eurostoxx;

- Volatilità implicita borsa europea: volatilità implicita calcolata sulle opzioni at-the-money sull'indice Eurostoxx a scadenza 3 mesi;
- Rendimento borsa ITA/Europa: differenza tra il rendimento settimanale della borsa italiana e quello delle borse europee, calcolato sugli indici FTSEMIB e Eurostoxx;
- Spread ITA/GER: differenza tra i tassi di interesse italiani e tedeschi a 10 anni;
- Spread EU/GER: differenza media tra i tassi di interesse dei principali paesi europei (Francia, Belgio, Spagna, Italia, Olanda) e quelli tedeschi a 10 anni;
- Euro/dollaro: tasso di cambio euro/dollaro;
- Spread US/GER 10Y: spread tra i tassi di interesse degli Stati Uniti e quelli tedeschi con scadenza 10 anni;
- Prezzo Oro: quotazione dell'oro (in USD)
- Spread 10Y/2Y Euro Swap Curve: differenza del tasso della curva EURO ZONE IRS 3M a 10Y e 2Y;
- Euribor 6M: tasso euribor a 6 mesi.

I colori sono assegnati in un'ottica VaR: se il valore riportato è superiore (inferiore) al quantile al 15%, il colore utilizzato è l'arancione. Se il valore riportato è superiore (inferiore) al quantile al 5% il colore utilizzato è il rosso. La banda (verso l'alto o verso il basso) viene selezionata, a seconda dell'indicatore, nella direzione dell'instabilità del mercato. I quantili vengono ricostruiti prendendo la serie storica di un anno di osservazioni: ad esempio, un valore in una casella rossa significa che appartiene al 5% dei valori meno positivi riscontrati nell'ultimo anno. Per le prime tre voci della sezione "Politica Monetaria", le bande per definire il colore sono simmetriche (valori in positivo e in negativo). I dati riportati provengono dal database Thomson Reuters. Infine, la tendenza mostra la dinamica in atto e viene rappresentata dalle frecce: ↑, ↓, ↔ indicano rispettivamente miglioramento, peggioramento, stabilità.

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# Robotic Process Automation – Challenges of Implementation in the Financial Services Industry

*a cura di Deloitte Italia*

15/07/2018 15:46

## Robotic Process Automation - Challenges of Implementation in the Financial Services Industry

In more established industries, finding new ways of increasing internal efficiency while maintaining a high level of customer satisfaction is persistently becoming more crucial not just to achieve success, but also to survive in an ever-competitive environment.

The Financial Service Industry (from now on, FSI) belongs to this category of slowly increasing markets and shows several characteristics that make it one of the best subjects for the application of Robotic Process Automation.

Robotic Process Automation (from now on, RPA), often referred to as “robotics” or “robots”, is defined as the automation of rule-based processes with software integrated at user interface level that can interact with the internal information technology landscape or external web application simulating a human. In other terms, RPA is a software solution that mimics a variety of rule-based, repeatable processes that do not require real-time creativity or judgment.

Classic processes that can benefit from RPA typically have repeatable and predictable interactions with IT applications, including those that may require toggling between multiple applications. These peculiar characteristics can be easily found in almost all of the totality of FSI middle and back-office processes.

In essence, a robot can perform activities like opening emails and attachments, logging into web/enterprise applications, moving files and folders, filling in forms, reading/writing from databases, scraping data from the web, connecting to system API, extracting structured data from documents and following “if/then” decision rules. On the other hand, a robot is not designed to: read hand-written documents, understand the meaning of documents, self-adapt to variations of the underlying applications, produce physical outputs, perform complex tasks requiring human interaction, cognitive systems or artificial intelligence.

### Benefits

The main results of a successful RPA implementation are identifiable in significantly faster (payback at less than 12 months<sup>[1]</sup>) and higher ROI, achievable with a limited investment compared to a traditional IT project and tangible efficiency improvements (about 20% of FTE capacity coverable by robots on average<sup>[1]</sup>).

Nonetheless, organizations adopting RPA solutions typically experience benefits beyond mere cost reduction and speed of implementation:

- Decreased cycle times: usually robots are faster than humans in work execution and can run 24/7;
- Flexible cost structure: robots can be scheduled and reassigned depending on the current needs of the organizations (e.g. by dynamically allocating more robots to more cumbersome or urgent processes);
- Improved accuracy: as long as any exception is properly mapped, robots cannot fail in the standard execution (e.g. they do not make typos);
- Improved organizational structure: RPA can free staff from the more repetitive and alienating tasks and enables a more valuable personnel allocation;
- Detailed data capture: robotic solutions are designed to provide users and controllers with a wide set of reports and logs, useful for supporting further process improvements, auditing and bolstering regulatory compliances.

### Challenges

These are just some of the examples of the benefits that a robotic solution can yield to a financial service provider, which well explains why nowadays RPA has become a key topic of the business jargon of this industry.

Yet there are several challenges that may emerge when implementing a RPA solution, whose nature can span from mere technical and infrastructural issues to strategic and behavioural matters.

First, RPA is so effective in the short time that it incurs in the risk of being considered as a simple “patch” solution, only able to quickly solve a temporary issue, with the result that Proof of Concepts and Technologies take precedence over a cohesive, end-to-end strategy that considers also people change management implications. Moreover, organizations often take a de-centralized approach to RPA, testing the capability across multiple functions with uncoordinated initiatives. This short sighted approach eventually leads to an ineffective scaling of RPA throughout the organization.

On the other hand, a successful pilot implementation may create a misconception of what RPA is actually capable of, overestimating its possible applications also on processes that do not comply with the automation basic requirements. More commonly, organizations perform an RPA transformation without considering broader value propositions comprehensive of complementary technologies, which drastically reduce the possibilities of an effective implementation.

In some cases, employees may turn to be apprehensive about the potential impacts of service automation on their jobs, and executives cannot neglect this aspect. Indeed, where one side sees an opportunity for better allocation of resources to more valuable activities, the other side perceives a threat to their role in the organization. In the worst case, staff members might panic and even sabotage new initiatives.

Finally, even though RPA is designed to mimic human behaviour, a minimum of process reengineering is required in order to effectively automate the activities. This fact adds to the basket all the possible issues that may occur whenever a change is brought to a consolidated procedure, and the complexity is further increased if we consider that the change involves both the

business and the IT functions.

The largest threat that all these elements bring together is the concrete possibility of a stand-alone RPA implementation, as showed in a research conducted by Deloitte in 2017<sup>[1]</sup> over 400 firms spread across the world. Indeed, while 53% of the interviewed sample had started an RPA initiative, only 3% was able to scale such activities and reach a steady productivity state.

## Solutions

Therefore, despite the easiness of implementation of an RPA solution compared to a traditional IT change, a concretely effective process automation is far from being a simple task.

Indeed, the correct adoption of RPA in the organization requires executives and users to take into account several aspects, not just IT-related, such as:

- A strong commitment from management to help deliver the service automation vision. This can be achieved by steering internal communications to inform staff about the service automation strategy and timing and its effects on employees;
- An early involvement of IT professionals to avoid risks to the organization, such as exposing sensitive data, and to plan a comprehensive automation roadmap, which is crucial to ensure a proper development of RPA aligned with traditional systems evolution;
- A direct engagement of employees in the design and implementation of the RPA solution, which can also be very effective in reducing resistance and can lead to further positive impacts including higher job satisfaction.

The result of these considerations is the creation of a centralized Center of Excellence inclusive of the organizational layers involved in the initial implementation. The CoE will represent the unit that, by applying a sound governance framework, will be in charge of the evolution of robotics in the organization.

Under a strategic perspective, to successfully start and maintain an RPA initiative, an organization should:

- Adopt a different mind-set that considers a new category of digital workforce, inclusive of users and robots as well. This novel perception requires first to start with a bold ambition for the digital workforce, which is then translated in a continuous transformation programme. In turn, this needs continuous and apt investments: RPA should not be considered as an one-off cost, but its effective implementation and improvement has to be sustained over time;
- Be aware that RPA actually represents only the first step of the automation spectrum. Indeed, RPA can get more effective if it is connected with other supporting/enabling technologies, such as BPM, OCR and Machine Learning. The development of further, "smarter" technologies with RPA tools enables the real paradigm shift towards the Intelligent Enterprise;
- Manage RPA issues that can emerge in aligning the new solution with the current IT architecture, by having a strong checklist in place regarding infrastructure and compliance requirements. This point is crucial in order to ensure that

the correct infrastructure is in place and compliance requirements have been met early on in the project. The proper architectural alignment comes first with the targeted selection of the RPA vendor that best meets the business needs.

Maximizing the impact of RPA requires a committed shift in mind-set and an approach switch from experimentation oriented to transformation oriented.

## Conclusion

The recent developments of the Financial Services Industry are shifting the focus on efficiency. Thanks to its ability to deliver quick and concrete results with a limited investment, RPA appears to be the right solution for such emerging needs.

Yet, despite the several benefits provided, RPA comes also with some potential issues that may halt its development. Elements like poor planning, employees' resistance and change aversion may indeed represent a critical obstacle to a proper scaling of RPA in the organization, which would lay-off many of the potential benefits.

Therefore, for an organization resolving to this kind of implementation it is essential to adopt a strategic approach inclusive of both the organizational and technical aspects that considers RPA as the starting element towards the realization of the digital enterprise run by the digital workforce.

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## Notes

[1] Deloitte, *The robots are ready. Are you? Untapped advantage in your digital workforce*, 2017

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# ECB: Benefits and costs of liquidity regulation

15/07/2018 17:06

The European Central Bank (ECB) published a working paper aimed at addressing the new risks arising from changes in the regulation of liquidity related issues.

The prudential regulation of banks has changed dramatically since the global financial crisis. While the Basel III reforms of the quantity and quality of bank capital have been the most prominent, a number of other policy initiatives have also been pursued with the aim of making banks safer and avoiding future crises. The paper focuses on one of these initiatives — a new régime of bank liquidity regulation — and examine if and how it can be beneficial for financial stability, at what cost, and how it interacts with other financial policy tools such as capital requirements and the Lender of Last Resort.

An empirical assessment of the benefits of liquidity regulation and a quantification based on macro-financial models and euro area data of its long-run macroeconomic costs is proposed. This

allowsto shed light also on the interactions with capital regulation and LOLR, and take these interactions into account in our evaluation of benefits and costs.

The usefulness of liquidity tools in the optimal financial policy mix is determined by three main factors: (1) the size of LOLR distortions, (2) the effectiveness of liquidity policy instruments in alleviating liquidity stress and (3) the cost of liquidity policy instruments themselves. Our empirical work takes as a point of departure that unlimited LOLR interventions are costly and focuses on providing guidance on the quantitative importance of the last two factors.

Among the benefits of liquidity regulation, the beneficial effect of the two main liquidity ratios (the Liquidity Coverage Ratio, (LCR) and the Net Stable Funding Ratio, (NSFR)) in reducing liquidity take-up by European banks is explored. During the 2008–2009 crisis period, European banks in our sample on average used a total of 460 billion euros of public liquidity. The estimates suggest that, had these banks fully complied with the LCR (NSFR) ratio, this would have reduced liquidity take-up by 32 (110) billion euros.

The proposed policy tools therefore had a statistically and economically significant negative impact on liquidity take-up during the most recent crisis. Nevertheless, the evidence also suggests that liquidity regulations (at least as currently specified) would not have prevented the need for large public liquidity assistance for European banks. This stands as a note of caution against expecting the end of LOLR interventions due to the application of the current liquidity policy tools.

The cost for banks of complying with the LCR and NSFR is also explored. These costs turn out to be non-trivial but small, especially when compared with the costs of capital requirements. The analysis therefore suggests that while the LCR and NSFR do not have financial stability benefits on a par with bank capital requirements, they are still useful due to their relatively low cost.

Benefits and costs of liquidity regulation (PDF)

## EBA: Fintech and its impact on incumbents

15/07/2018 16:13

The European Banking Authority (EBA) published the first products of its FinTech Roadmap, namely (i) a thematic report on the impact of FinTech on incumbent credit institutions' business models and (ii) a thematic report on the prudential risks and opportunities arising for institutions from FinTech. Both reports fall under the wider context of the newly established EBA FinTech Knowledge Hub and aim to raise awareness within the supervisory community and the industry on potential prudential risks and opportunities from current and potential FinTech applications and understand the main trends that could impact incumbents' business models and pose potential challenges to their sustainability.

### **Report on the impact of FinTech on incumbent credit institutions' business models**

Based on the EBA's observations, incumbents are categorised

into (i) proactive/front-runners, (ii) reactive and (iii) passive in terms of the level of adoption of innovative technologies and overall engagement with FinTech. Potential risks may arise both for incumbents not able to react adequately and timely, remaining passive observers, but also for aggressive front-runners that alter their business models without a clear strategic objective in mind, backed by appropriate governance, operational and technical changes.

The report sets out five factors that might significantly affect incumbents' business models from a sustainability perspective: (i) digitalisation/innovation strategies pursued to keep up with the fast-changing environment, (ii) challenges arising from legacy ICT systems, (iii) operational capacity to implement the necessary changes, (iv) concerns over retaining and attracting staff and (v) increasing risk of competition from peers and other entities.

The report concurs that currently the predominant type of relationship between incumbents and FinTech is partnership with FinTech firms, which is considered a "win-win" situation.

### **Report on the prudential risks and opportunities arising for institutions from FinTech**

The report assesses seven use cases, where new technologies are applied or considered to be applied to existing financial processes, procedures and services. The report aims to provide both competent authorities and institutions with useful guidance on such applications. It focuses on micro-prudential aspects, setting out potential prudential risks and opportunities that may arise from each use case:

- Biometric authentication using fingerprint recognition;
- Use of robo-advisors for investment advice;
- Use of big data and machine learning for credit scoring;
- Use of distributed ledger technology and smart contracts for trade finance;
- Use of distributed ledger technology to streamline customer due diligence processes;
- Mobile wallet with the use of near-field communication;
- Outsourcing core banking/payment system to the public cloud;

No significant implementation of sophisticated technologies has been noted yet by institutions, possibly because of security concerns and filtering the hype around FinTech. From the prudential risks' perspective, there is a growing shift towards operational risk, arising mainly from the accentuation of ICT risks as institutions move towards more technology-based solutions.

Dependencies on third-party providers, heightened legal and compliance risks and negative impact on conduct risk add to the overall increased operational risk. The potential efficiency gains and improved customer experience are currently the predominant potential opportunities while the changing customer behaviour is an important factor triggering institutions' interest towards FinTech.

Report on prudential risks and opportunities arising for institutions from FinTech.pdf (PDF)

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# IOSCO: commodities delivery and derivatives pricing

15/07/2018 16:02

The Board of the International Organization of Securities Commissions (IOSCO) is requesting feedback on proposed good or sound practices to assist relevant storage infrastructures and their oversight bodies to identify and address issues that could affect commodity derivatives' pricing and in turn affect market integrity and efficiency.

In the report "Commodity Storage and Delivery Infrastructures: Good or Sound Practices, published for consultation today", IOSCO proposes the adoption of the good or sound practices by all relevant storage infrastructures, their oversight bodies and financial regulators in IOSCO member jurisdictions, as appropriate to their role and activities.

IOSCO believes that the implementation of these practices will lead to a more transparent and robust environment for the physical storage and delivery of commodities, producing benefits for all commodity market participants.

The overarching objective of the good or sound practices is to create a framework that incentivises the market to adopt best practices and self-correction, rather than one that prohibits certain behaviours.

The report builds on IOSCO's 2016 report "The Impact of Storage and Delivery Infrastructure on Derivatives Market Pricing", which identified certain commodities storage and delivery situations that have the potential to affect derivatives pricing if not properly addressed. These practices fall into five broad areas: oversight, transparency, conflicts of interest, fees and incentives, and operations.

The Impact of Storage and Delivery Infrastructure on Derivatives Market Pricing (PDF)

Commodity Storage and Delivery Infrastructures: Good or Sound Practices, published for consultation today

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