



**Christopher
P. Buttigieg**

Chief Officer Supervision,
Malta Financial Services Authority

Cloud Computing and adapting Financial Supervision to the Digital ERA

Cloud computing is a facilitator for enterprise business transformation and has the potential of significantly changing the way financial services is offered to clients. Leaders in financial services and practitioners are progressively acknowledging that cloud computing can facilitate the: [a] storage of data and applications; [b] access of advanced software applications via the internet; and [c] application of advanced analytics for better and more integrated insights.

The paradigm shift in the conduct of financial services through fintech brings about new risks and challenges, which also require a change to our approach to financial supervision. This article briefly outlines: [a] the policy and regulatory work being carried out by the European Commission to create a framework for the better use of cloud computing in Europe; [b] the operational and systemic risks which emerge from outsourcing to the cloud; and [c] how these risks are being dealt with by financial supervisors at European level.

The Commission is currently working on projects, which will further reap the benefits from cloud computing at European level. Specifically, the establishment of a European federation of cloud infrastructures and services, a European marketplace for cloud services, and a governance framework that includes an EU cloud rulebook. Largely driven by the Digital Single Market, these projects entail: [a] the free flow of non-personal data; [b] data portability; [c] cybersecurity; [d] data protection in the cloud; [e] standardised cloud service level agreements; [f] cloud use by the financial services sector as pre-empted within the FinTech Action Plan 2018; and [g] a European mapping of data flows.

Outsourcing to the cloud gives rise to governance and oversight challenges, for example the dynamics of the management and control of data, which is a critical function for every organisation, must adapt to the cloud environment. It also brings new dimensions of operational risk, particularly cyber security risk, and possible concentration risk, which must be monitored by prudential supervisors to ensure that these are properly mitigated. In addition, discussions are on-going on the possible systemic risks brought about from outsourcing to the cloud, above all if financial services firms rely on a handful of dominant cloud service providers (CSPs), the failure of which could have a meaningful impact on such firms.

In the field of prudential supervision, the European Banking Authority and the European Insurance and Occupational

Pensions Authority have both issued guidelines specifically dealing with outsourcing to CSPs. The European Securities and Markets Authority is also consulting on a set of guidelines in this area. The guidelines, which converge on substance and address cloud outsourcing from a multidisciplinary perspective, are being implemented at national level and monitored by national financial supervisors. More generally, FinTech presents challenges that are shaping the art and craft of financial supervision, including the methodologies and processes, which today incorporate: [a] data driven solutions and analytics for supervision; and [b] technology whereby supervision is partly carried out on a real time basis.

Europe is strategically going forward in closing outstanding gaps, maximising the potential of the cloud, and mitigating substantial risks. Nonetheless, the fast-moving pace of emerging technologies is increasingly posing challenges to financial supervision, which has to continue keeping abreast and adapting to the emerging new technologies. Ensuring that we are able to supervise the industry is not enough. As outlined in this short article, benefiting from the opportunities which this presents by adopting technology to make supervisory processes more efficient thereby allowing financial supervisors to optimise resources, and be more effective in achieving supervisory objectives, is equally important. ●