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Use of cloud services: opportunities are clear but challenges still abound

Cloud services undoubtedly offer numerous opportunities to financial institutions. Some of the more important ones are greater efficiency in cost management, flexibility in the provisioning of computing resources and the ability to use modern technology stacks. However, the financial institutions' perception of risks related to the use of cloud services and regulatory scrutiny have stymied wider adoption.

Croatian banks have taken a cautious approach toward implementing cloud services and until now have primarily focused on the collaboration and support tools. The complexity of the cloud service providers' (CSPs) infrastructure, long supply chains and the opaqueness of their internal control mechanisms have made risk assessments quite challenging, particularly in relation to the regulatory requirements. Recognition that small errors in the configuration of cloud environments can have an outsized negative effect (e.g. public disclosure of personal and financial data), uneasiness about CSPs' use of client's data and the need for new threat models also negatively influence information security assessments. Information asymmetry and differences in size between the dominant CSPs and their smaller clients (such as Croatian banks) further exacerbate challenges for risk assessment and relationship management.

The European Banking Authority (EBA) has defined regulatory expectations related to the use of cloud services in the banking sector in the *Recommendations on outsourcing to cloud service providers and Guidelines on outsourcing arrangements*. These documents recognize the use of cloud services as outsourcing. Major CSPs have recently enabled the addition of financial services addendums to their standard contracts that, as they claim, fulfil regulatory expectations. However, hurdles in the exercise of audit rights, vagueness of the shared responsibility model and uneasiness about vendor lock-in and geopolitical risks still impede a wider adoption of cloud services.

Various developments that might mitigate some of the risks are under way. The European Commission's *FinTech Action plan* recognizes the need for the development of standard contractual clauses for cloud outsourcing. These would alleviate some of the issues but require further development. The initiatives such as the *Gaia-X Project* might reduce vendor lock-in and geopolitical risks but are still in the early phases of development. The EBA's *Guidelines on outsourcing arrangements* mandate that institutions should provide

competent authorities with a register of all outsourcing arrangements, which – in turn – might enable the identification of systemic risks. It is reasonable to assume that a well-thought-out framework for independent, standardized, continuous and in-depth assessment of the adequacy of CSPs control environments and the related certification and accreditation regimes would go a long way in mitigating many of the identified risks and challenges. ●