Does Cashless Payment Development Affect Financial Stability?

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Abstract

This paper investigates the effect of cashless payment development on financial stability of a country. This paper also considers whether the relationship between cashless payment and financial stability of a country has changed after COVID-19 pandemic. We use four financial stability indicators, including Z-Score, nonperforming loans ratio, capital adequacy ratio and return on total assets. The cashless payment data is obtained from BIS from 2012 to 2023 and we consider volumes and values of cashless payment per inhabitant of each country. We also consider the cashless payment classifications and classified into credit transfer, direct debits, cheques and card and e-money payments of each country. The results show, first, a higher volume of cashless payments per inhabitant enhances a country's financial stability. This positive effect is observed across various forms of cashless transactions, including credit transfers, direct debits, card payments, and e-money transactions. The only exception is cheque payments, where a higher volume is found to be detrimental to financial stability. Second, the *value* of cashless payments per inhabitant does not significantly influence financial stability, except when financial stability is measured by the capital adequacy ratio. When examining specific types of cashless payments, higher values of card and e-money payments per inhabitant are associated with greater financial stability, particularly when using indicators such as the nonperforming loan ratio and the Z-score. Similarly, higher values of credit transfers per inhabitant contribute positively to banks' capital adequacy ratios. Third, the *volume* of cashless payments has a consistently positive effect on a country's financial stability, both before and after the COVID-19 pandemic. Fourth, in the post–COVID-19 period, higher *values* of cashless payments—especially credit transfers—per inhabitant further strengthen financial stability when measured by the Z-score. The positive relationship between the value of credit transfers per inhabitant and financial stability becomes even stronger after the pandemic when financial stability is measured using the capital adequacy ratio. The only exception remains cheque payments, where higher values per inhabitant continue to undermine financial stability, particularly in the pre-pandemic period.

Keywords

Cashless payment development, financial stability, nonperforming loans ratio, Z-Score, capital adequacy ratio, ROA, COVID-19.