

The Fein report  
in summary

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Cash Essentials  
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# What makes cash such a resistant king?

## *The Fein report in summary*

A new statistical report for the research platform CashEssentials explores key drivers behind the still robust demand for cash, despite the global context of rapidly developing electronic payments.

The paper, by former Bank of Israel Cash Department head, Mordechai Fein, found that cash usage remains intense in 26 countries plus the Euro Area in seeming defiance of major initiatives by authorities to limit its use.

“Contrary to expectations, our results showed that the amount of cash is still growing, even significantly, and not yet showing any signs of weakness,” the report found.

“One way or another cash remains, as it were, stubborn. Both cash in circulation and card payments (a proxy for e-payments) have increased since 2007, amounting to a clear, in-summary statement for cash: ‘I am still here and have no intention to disappear’”.

The study enlarged the classic variables approach of evaluating demand for cash in terms of GDP, interest rates and tax revenue, by measuring population factors including age, income and education, as well as technological development.

The study applied a fixed effects statistical model over a ten-year period to 2016, using regression analysis and a robustness check to analyse data drawn from IMF and World Bank database resources.

Due to the availability of the data variables required, modelling was applied to the following countries and the Euro Area: Australia; Brazil; Chile; China; Columbia; Croatia; Czech Republic; Denmark; Hong Kong; Hungary; Indonesia; Israel; Japan; South Korea; Mexico; New Zealand; Poland; Romania; Russia; Serbia; South Africa; Sweden; Switzerland; Turkey; Great Britain and the United States of America.

Among the study’s major findings was statistical confirmation that:

- As a population becomes richer, the use of cash declines;
- Younger people (below the age of 35) are less inclined to use cash than older individuals;
- Tertiary educated people are less inclined to use cash than less formally educated individuals.

On technology (incorporating proxies), the report found that a high penetration of mobile telephone subscriptions indicated less use of cash, though there was no significant relationship found between cash usage and internet use.

“So, in contrast to those who claim that holding cash derives mainly from the intention to avoid paying tax, our model shows that cash plays an important role for various societal groups, depending on the level of development in a given country.”

In addition, the study found no substantive correlation between cash usage and urbanisation, or, applying an International Corruption Index, the use of cash and public sector corruption.

Returning to classic variables, the report arrived at the following conclusion on tax. “The classical drivers (GDP; interest rate and tax) that significantly influence the quantity of money in the economy, identically affect the amount of cash in circulation. However, (our) model shows that contrary to some authorities justifying limitations on the use of cash as an ‘ultimate medication against tax evasion’, tax revenue affects the use of cash, though significantly, in a lower volume than GDP and the interest rate.”

The report said authorities intermittently devised new obstacles to cash usage in the name of “fighting the underground economy”. “It seems (these authorities) would go to almost any length to create an atmosphere where cash use is illegitimate. It should not be forgotten, however – in fact, it should be emphasised – that it has never been proven that cash payments, or their receipts, are the reasons for the development of the underground economy.”

Based on statistical analysis, it was too early to determine the impact of initiatives imposed to limit the use of cash, ranging from restricting access, to subsidising or promoting digital payments, to directly limiting the use of cash by quantity.

But the report had provided tools for future analysis of the cash sector across countries. “(It will) serve central banks, cash centers and suppliers, to predict the level of cash in different economies and in crisis situations”.

The report concludes: “Despite substantial efforts to limit cash, even to eliminate it in some countries, its use continues to increase, albeit retarded by the accelerated growth of various means of electronic payment.”