Discussion of "Cash: A Blessing or a Curse?"

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The paper by Argente, Alvarez, Jimenez, and Lippi (hereafter AAJL) has two main parts and a punchline. The first part uses two natural experiments — the roll out of electronic cards in the means-tested cash transfer program Propsera and the reduction in withdrawal costs due to an expansion of ATM-sharing agreements — to estimate the impact of reductions in cash holdings on outcomes such as crime. They find a small reduction in petty crime and insignificant evidence of anything else, including informal worker share or local taxes paid. The second part is a model of payment choice between cash and credit in which agents have CES preferences over the types of payment and goods differ in their natural cash or credit intensity. The punchline comes from putting numbers on the costs and benefits. Using a payment elasticity drawn from earlier work and survey evidence on the cash share of purchases, AAJL calculate a lower bound of a 6% of GDP-equivalent welfare cost from a 40% tax on cash and a maximum of 1.3% of GDP welfare gain from eliminating all cash-related thefts and robberies.

This is a serious and well-executed paper that is part of a larger agenda of the authors to understand the welfare costs and benefits of cash. I will divide my comments into two parts. First, I will discuss why people like cash, coming at this question from several angles. The theme of this part will be to question whether preferences over cash stem from immutable characteristics or whether these preferences could change after a transition period. Effectively, I will probe whether the 6% of GDP cost from making transactions in cash more costly is a one-time transition cost or a permanent annual flow cost, with obvious implications for the cost-benefit exercise. Second, I will discuss other benefits not measured by the AAJL local event study approach.

Why do (some) people use cash? Banning cash can reduce welfare because many people use cash to pay for things. Why do people use cash? The evidence in AAJL points primarily to preferences. AAJL Figure A.4 reports results from a survey of respondents who do not have a credit card. A minority of respondents cite factors such as not meeting requirements (23%) or travel time to the bank (2%). Instead, most respondents answer that they do not like debt (32%) or need a card (26%). Figure 3 of AAJL reports results from respondents who own a debit or credit card. More than 60% answer that they still use cash because they prefer it. The most common reasons that these respondents give for preferring cash are: used to it (35%), better control (20%), and lack of trust of cards (15%). Only about 10% of respondents say they prefer cash because of economic reasons such as that it is widely accepted or because of card fees.

Table 1: Share of Payments in Cash

	Age			
Education	18-39	40-59	60+	Total
	Panel A: Mean share			
Less than HS	55.7	50.5	59.6	55.2
HS diploma	34.4	42.2	36.1	37.8
Some college	26.0	32.7	34.0	30.9
BA	14.8	18.5	30.0	18.9
Advanced degree	12.9	18.1	26.0	17.8
Total	25.2	32.4	35.1	30.6
	Panel B: Inter-quartile range			
Less than HS	[15.6,98.4]	[24.2,76.3]	[20.4,100.0]	[20.2,98.4]
HS diploma	[13.8,46.5]	[14.3,56.5]	[10.5,52.9]	[13.8,53.8]
Some college	[5.5,33.3]	[9.7,47.9]	[12.0,47.5]	[9.1,45.5]
BA	[4.3,18.8]	[5.4,25.0]	[10.1,44.9]	[5.2,27.5]
Advanced degree	[1.2,17.3]	[4.9,27.3]	[8.3,36.4]	[2.7,25.5]
Total	[4.3,33.3]	[8.5,49.1]	[10.7,50.8]	[7.2,45.8]

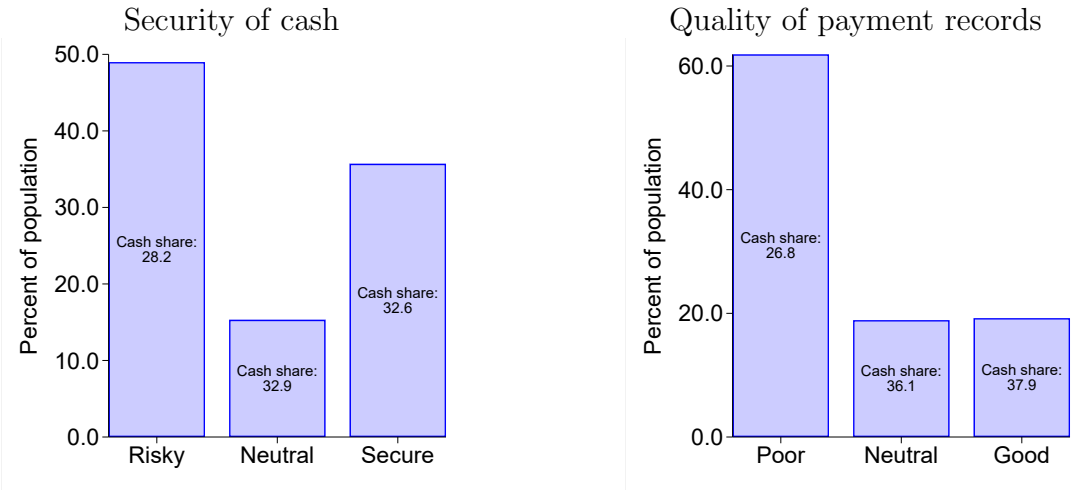
Source: 2019 Survey of Consumer Payment Choice.

Table 1 uses data from a Federal Reserve survey of consumer payment choice in the United States to further investigate how cash use varies across individuals. Panel A reports the mean share of cash payments for each education×age cell. There are large and systematic differences, with cash use increasing in age and declining in education. For example, the mean respondent over 60 with less than a high school diploma uses cash for 60% of payments, the mean respondent over 60 with an advanced degree uses cash for 26% of payments, and the mean young person with an advanced degree uses cash for only 13% of payments.

Panel B contains the same groups but reports the within-cell inter-quartile range of payment share. The variation within cells in most cases far exceeds the variation across cells. That is, cash use varies widely within observationally-similar groups.

The Federal Reserve survey also asks respondents their perception of the characteristics of different payment methods. As shown in Figure 1, people disagree about fundamental aspects of cash. About half of respondents consider cash to be risky while a third consider cash to be secure. 60% of respondents consider cash to be poor for payment records while the remainder are neutral or positive. Not surprisingly, these perceptions correlate with cash use, with respondents who view cash as risky or generating poor payment records having a lower cash share.

Figure 1: Perceptions of Cash



Source: 2019 Survey of Consumer Payment Choice.

There is also wide variation around the world in cash intensity, even among otherwise similar countries. For example, Germany and the Netherlands are high income countries that border each other and share a common currency. Yet, in Germany 80% of transactions are conducted in cash, while in the Netherlands that number is 45% (Esselink and Hernández, 2017).

Taking stock, people give preference-based reasons for why they do or do not use cash, there is a lot of variation within and across countries in cash use, and people have very different views about the properties of cash. This evidence seems consistent with a model of preferences such as the authors write down, albeit one that perhaps demands more explicit consideration of heterogeneity. More important, it raises the question of whether these preferences are immutable. The plurality of mixed users in Mexico who say they prefer cash because they are "used to it", and the large differences in cash use across otherwise similar countries and across similar-on-observables individuals within countries, suggests that perhaps these preferences are path-dependent and could change if cash were phased-out.

The question of immutability importantly affects the interpretation of the AAJL welfare exercise. Formally, preference mutability means $\bar{\alpha}$ (the average share of expenditure using credit, at baseline prices) and η (the elasticity of substitution between cash and credit) eventually increase following a tax on cash. Quantitatively, the paper estimates that a large reduction in cash use due to a tax on cash has a potential benefit of about 1% of GDP per year in reduction of crime. If $\bar{\alpha}$ and η do not eventually adjust, then the utility cost from

reduced payment convenience is 6% per year and clearly the costs of banning cash exceed the benefit. If however the 6% of GDP is a one-time cost because preferences adjust, then the present value of benefits may outweigh the one-time cost.

I will close this point by appealing to introspection. If someone had surveyed my point-of-sale payment methods in 2019, they would have found roughly 10% cash, 75% credit card, and 5% e-wallet (phone). Today those shares are roughly 1% cash, 19% credit card, 80% e-wallet. What changed? First, the utility cost of using cash or credit card rose when COVID-19 introduced concerns of infection from handling physical currency or entering payment information on a credit card terminal. That is akin to a tax on these methods in the AAJL framework. Next, I became more adept at using E-wallet technology and sellers became more likely to have an E-wallet terminal and know how to operate it. Now I prefer the new technology and will not revert, even though concerns over the infection risk of using cash or credit card proved unfounded. In the AAJL terminology, the economy has reverted to baseline prices but my $\bar{\alpha}$ has changed. Less formally, the payment preferences implicit in my previous allocation were highly mutable and the cost of transitioning a one-time learning cost as I and sellers became accustomed to the new technology.

Potential benefits not captured by local event studies. There are benefits to reducing or removing cash that are not identifiable from local event studies and merit brief mention. One is reduced organized crime, which depends on the availability of large amounts of untraceable currency. Admittedly, this probably requires coordination across countries, since Mexican drug cartels use dollars as well as pesos and could pivot to euros or swiss francs or perhaps Bitcoin. Other potential benefits include reduced tax evasion and mitigating the effective lower bound on nominal interest rates.

It is worth pointing out that these benefits largely do not require fully banning cash, but instead just getting rid of large notes, since most organized illegal activity or storing of cash to elide negative interest rates requires large denomination notes. To the extent that the convenience costs concentrate on purchases with small denomination notes, it may be possible to capture many of the benefits with a much lower cost by introducing a non-uniform tax or ban by note denomination. A quantitative exploration of this possibility would be a valuable future project for these authors.

Conclusion. The paper poses a serious quantitative challenge to advocates of reducing or eliminating cash use. I have raised two counter-arguments. First, if peoples' preferences over cash use are adaptable, then the calibrated annualized costs in AAJL correspond to

the short-run but not the long-run cost. In that case, the present value of costs may be substantially below the headline value of 6% of GDP and perhaps even below the estimated benefits. Second, there are potential benefits not captured in local event studies. I look forward to reading the authors' next foray on this topic.

References

Esselink, Henk and Lola Hernández (2017). *The use of cash by households in the euro area.* Tech. rep. 201. European Central Bank.