

o.Univ.-Prof. Dr. Dr.h.c.mult. Friedrich Schneider
Forschungsinstitut für Bankwesen
Johannes Kepler Universität Linz
friedrich.schneider@jku.at, www.econ.jku.at/Schneider



May 2018

THE INEFFECTIVENESS OF CASH RESTRICTIONS AS A TOOL FOR PUBLIC POLICY

Presentation At The ESTA Conference,
Budapest

1. INTRODUCTION

The use of cash is under political pressure. The claim is:

- (1) It stimulates and supports shadow economy, crime and terrorist activities and
- (2) is risky, old fashioned and unnecessary.

→ Hence, reducing or abolishing cash is a popular political statement.

In this short lecture I concentrate on a scientific investigation, whether we have evidence for (1)!

1. INTRODUCTION

OVERVIEW OF THE LECTURE

2. Cash versus Illegal Activities

2.1 Cash and the Shadow Economy

2.2 Cash and Crime

2.3 Cash and Terrorism

3. Summary of the Findings and Conclusions

3.1 Summary

3.2 Conclusions

which finally leads me to my basic research question:

“What do we gain or lose abolishing cash?”

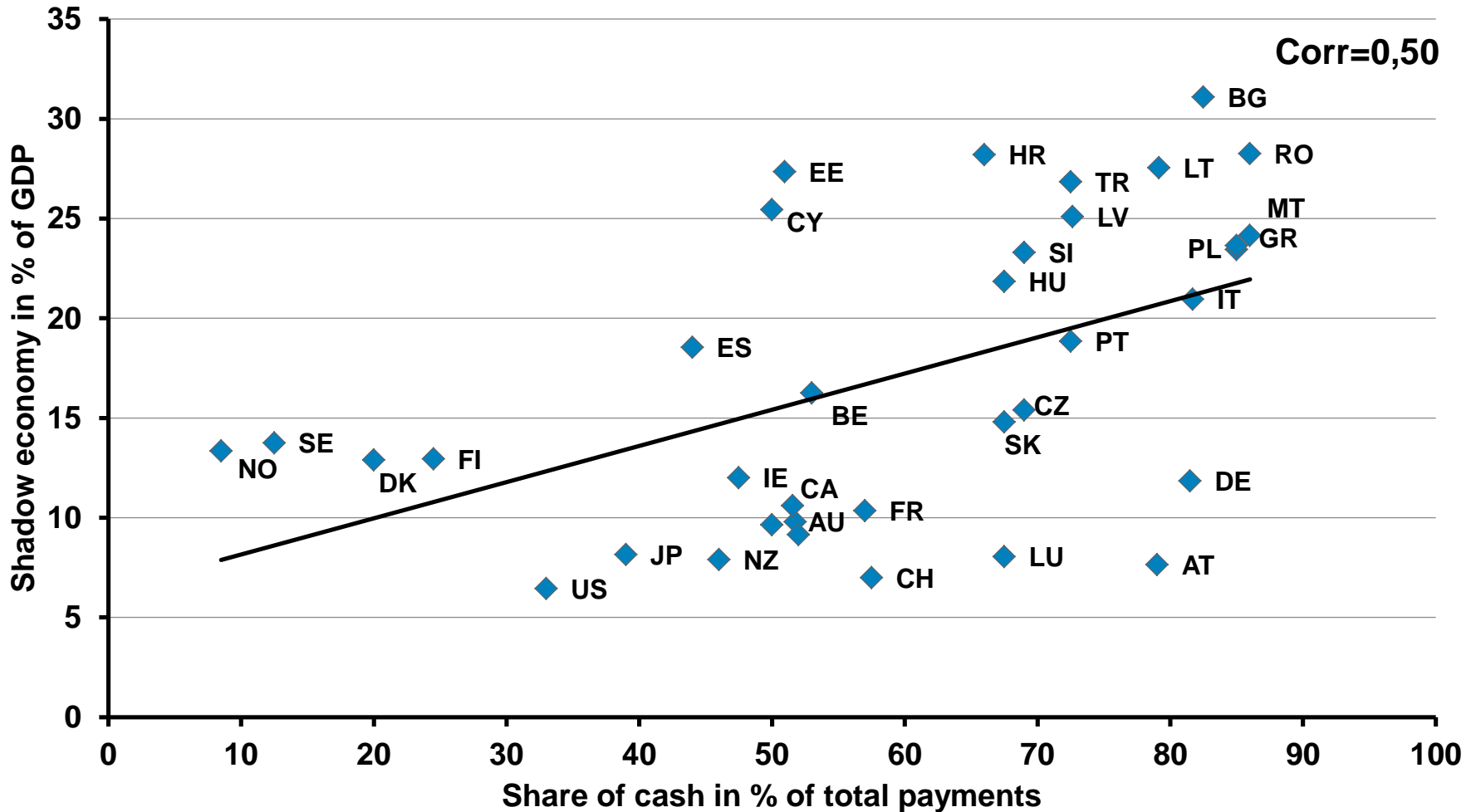
2. CASH VERSUS ILLEGAL ACTIVITIES

2.1 Cash and the Shadow Economy

- 1) Cash cannot be traced – which makes cash attractive for transactions related to the shadow economy, bribery, crime, and finance of terrorism.
- 2) “Shadow economy” refers to business activities “off the books” which are legally allowed but not recorded in order to avoid tax and social security payments, and to avoid labor market regulations.
- 3) Hence, classical criminal activities like drug dealing, trafficking, fraud, counterfeiting of merchandise, etc. are not part of a shadow economy.

2.1 Cash and the Shadow Economy (cont.)

Figure 2.1: Share of cash payments versus the size of the shadow economy (averages over 2013-2014)



Source: Own calculations.

2.1 Cash and the Shadow Economy (cont.)

Is cash a reliable indicator of size of shadow economy?

- 1) Germany and Austria are cash-intensive countries with relatively small shadow economies. In Sweden, cash payments have become rare but the country still has a median sized shadow economy.
- 2) Given these inconclusive findings and in order to fulfill the ceteris paribus conditions, an econometric investigation is undertaken: We know, shadow economy is driven by tax burden, regulation, quality of public institutions, and tax morale.

But how is it with the use of cash and/or cash limits?

2.1 Cash and the Shadow Economy (cont.)

Three ways of investigation:

- (i) Using the MIMIC estimation, shadow economy is a constructed figure by various causes (like tax burden, regulation, measures, economic freedom, legal system, tax morale, etc.) and indicators (like employment and GDP); in this investigation cash or cash limits are neither as cause nor as indicator variables used!

These “cash free” shadow economy figures are regressed on the availability of cash approximated by the variables “share of cash in % of total payments” and by “cash limits”.

- (ii) → Cash and cash limits are used as causal or indicator factors in a MIMIC (estimation) → not shown!
- (iii) Micro evidence from a survey (May 2016) → not shown!

2.1 Cash and the Shadow Economy (1st investigation)

Table 2.1: Simulation results; static ones; no adjustment procedures are assumed!

Simulations with standardized effects		
	Decrease	Effect
GDP p.c.	10% decrease ↓	→ Shadow economy <i>increases</i> by 18.4% ↑
Share of cash payments	10% decrease ↓	→ Shadow economy <i>decreases</i> by 2.01% ↓
No cash payments	Drops to 0!	→ Shadow economy <i>decreases</i> by 20.1% ↓
Cash limit	[Introduction of cash limit]	<u><i>no significant effect</i></u> [→ Shadow economy decreases by 1.59 percentage points]

Source: Own calculations.

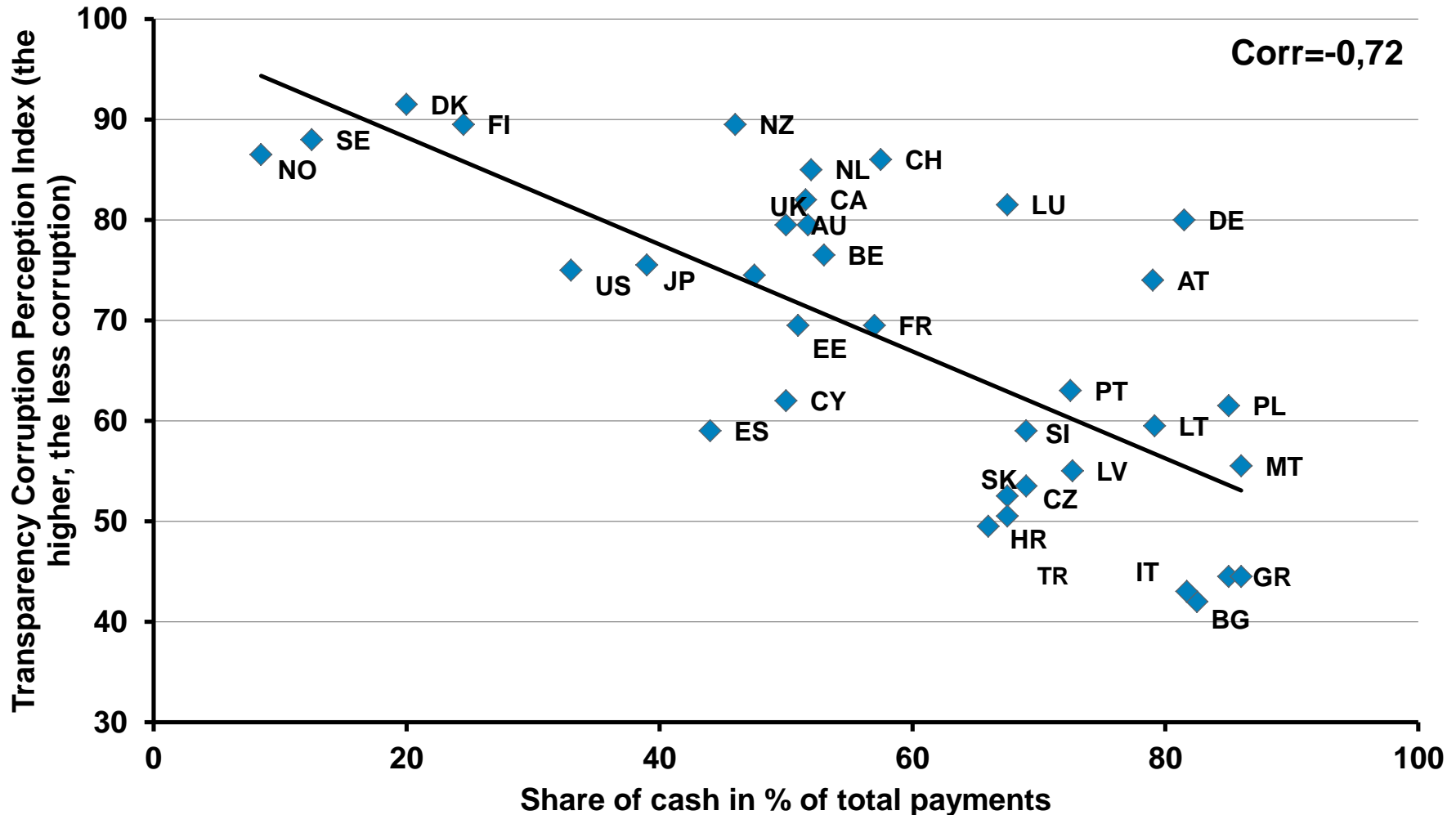
2. CASH VERSUS ILLEGAL ACTIVITIES

2.2 Cash and Crime – the case of Corruption

- 1) Similarly, the use of cash is often blamed as the main reason for bribery/corruption and crime activities.**
- 2) In many countries, the simple equation of “much cash, much bribery” seems to hold true in media stories.**
- 3) In countries such as Switzerland, Germany and Austria, low levels of perceived public sector corruption and bribery coincide with a high share of cash in total payments and/or a low number of cashless payments per person.**
- 4) No sound empirical evidence! Again, an econometric investigation is made, to fulfill ceteris paribus conditions.**

2.2 Cash and Crime – Corruption (cont.)

Figure 2.2: Share of cash payments as an indicator of corruption (averages over 2014-2015)



Source: Own calculations.

2.2 Cash and Crime – Corruption (cont.)

Table 2.2: Simulation results on TCI Transparency Corruption Index (the higher the value, the lower corruption)

Standardized effects → Simulations		
Rule of law	+10 percentage points	→ <i>Increase</i> of 6.1 percentage points of the TCI → Less corruption
Economic freedom	+10 percentage points	→ <i>Increase</i> of 5.0 percentage points of the TCI → Less corruption
Share of cash payments	-10 percentage points	→ <i>Increase</i> of 1.8 percentage points of the TCI
No cash payments	Drops to 0!	→ <i>Increase</i> of 18 percentage points of TCI → Less corruption
Cash limit=1		<i>Wrong sign!</i> <i>Not significant!</i>

Source: Own calculations.

2. CASH VERSUS ILLEGAL ACTIVITIES

2.3 Cash and Terrorism

Table 2.3: Cost of terrorist attacks – selected examples

Date	Incident	Cost
1993	World Trade Center bombing in New York	US\$ 19,000
2002	Bali bombing	US\$ 25,000
2004	Madrid train bombing	US\$ 10,000
2003	Jemaah Islamiyah operatives captured in Cambodia	Carrying US\$ 50000
2011	9/11 airplane attacks on New York and Washington	13 hijackers received US\$ 10,000 each
2015	Charlie Hebdo attacks in Paris	€ 6,000.--
2016	Attacks in Brussels + Brussels Airport	€ 8,000.--

2.3 Financial Means of Terrorist Organizations

Table 2.4: Financial Means of financing terror organizations; 2008-2015

Source	%
Drug business (mainly transporting drugs)	30-35%
Donations/Tribute payments of governments or wealthy individuals or religious groups	25-30%
Traditional crime (blackmail, kidnapping, etc.)	10-15%
Illegal diamond trading	10-15%
Additional unknown financial means (legal + illegal)	25-5%

Source: Own calculations.

3. SUMMARY OF THE FINDINGS AND CONCLUSIONS

3.1 Summary

- 1) The available evidence suggests that restrictions on cash use will reduce profits from crime or shadow economy activities but it will certainly not eliminate them.
- 2) Abolition of/reduction in cash or introduction of a cash limit:
 - Shadow Economy* → Reduction between 2.0% (cash limit) and 20% (no cash)
 - Corruption (no cash)* → Reduction between 1.8 (cash limit) and 18.0 percentage points
 - Crime* → Reduction between 5% (cash limit) and 10%
 - Terrorism* → no effect at all

3. SUMMARY OF THE FINDINGS AND CONCLUSIONS

3.2 Conclusions

- 1) Other means of storing and transferring illegally obtained assets without leaving many traces are already in use. They include:
 - the transport of other physical valuables (e.g. prepaid cards, precious metals, diamonds),**
 - criminal middlemen and shell companies to facilitate cashless transfers via regulated entities like the banking system, money transmitters or online payment service providers.****
- 2) Also, funds can be moved through traditional or new, alternative transfer systems like hawala or private virtual currency schemes.**

3. SUMMARY OF THE FINDINGS AND CONCLUSIONS

3.2 Conclusions

- 3) Finally, technical progress, especially cyber money (bitcoin), and other electronic means are rapidly changing our payment habits and hence will be heavily used by criminals, too.**
- 4) Nowadays, terrorists are “one-attack”-terrorists. They work and live undetected up to the terrorist attack. When they do the attack, they get either killed, disappear or are prosecuted.**
- 5) Financial means, terrorists need for an attack, are extremely low, mostly less than 10,000 dollars. As they live before as „normal citizens“, there is no suspicion, hence enough cash they can easily get, or they can use their credit cards.**

**THANKS FOR
YOUR ATTENTION!**