

Bastiaan
Quast

Introduction

Cryptocurrency
Inflation

Uncertainty,
Currency
Attacks

Pensions,
Child Growth

End Notes

References

Preliminary Thesis Defence

December 18, 2013

Jean-Louis Arcand^{1,4} Ugo Panizza^{2,4}
Bastiaan Quast^{3,4}

¹Professor of Economics,
Supervisor

²Professor of Economics,
Second Reader

³PhD Student,
bastiaan.quast@graduateinstitute.ch

⁴The Graduate Institute, Geneva

Bastiaan
Quast

Introduction

Cryptocurrency
Inflation

Uncertainty,
Currency
Attacks

Pensions,
Child Growth

End Notes

References

- 1 Introduction
- 2 Cryptocurrency Inflation
- 3 Uncertainty and Risk in Currency Attacks
- 4 Pensions and Child Growth: Additional Evidence from South-Africa
- 5 End Notes

Bastiaan
Quast

Introduction

Cryptocurrency
Inflation

Uncertainty,
Currency
Attacks

Pensions,
Child Growth

End Notes

References

Cryptocurrency Inflation

- Relevant enough for Development Economics?

Knightian Uncertainty:

- What to do with this critique?

Pensions and Child Growth:

- Defining of Age-Based and Height-Based Z-scores, correct?
- BMI as convex mapping of Weight-for-Height, significance?
- Drop in children living with recipient 2008-2012, how to account for this?

Bastiaan
Quast

Introduction

Cryptocurrency
Inflation

Uncertainty,
Currency
Attacks

Pensions,
Child Growth

End Notes

References

Often heard problems Bitcoin:

- 1 There is no inflation
- 2 Mining is wasteful

Consider Bitcoin together with other Cryptocurrencies

- Expansion in no. of coins, but expansion in no. of currencies
- Miners will move to less-mined currencies, leading to less waste
- Model as positive currency attack (Obstfeld 1986, 1996)

Uncertainty and Risk in Currency Attacks

Knighian Uncertainty in Morris and Shin (1998)

Bastiaan
Quast

Introduction

Cryptocurrency
Inflation

Uncertainty,
Currency
Attacks

Pensions,
Child Growth

End Notes

References

A review of “Unique equilibrium in a model of self-fulfilling currency attacks” (Morris and Shin 1998)

- Based on currency models Obstfeld (1986, 1995, 1996)
- Finds a unique equilibrium when ‘uncertainty’ is added

Critiques:

- Strange result, does not correspond to reality
- The ‘distortion’ changes uncertainty to risk, effectively increasing the body of knowledge
- The distortion of perception has a uniform distribution, results do not hold under e.g. Gaussian
- Speculator risk profile is redefined:

For the next step, consider the strategy profile where every speculator attacks the currency if and only if the message x is less than some fixed number k .
(Morris and Shin 1998, p. 592)

- Based on “Grandmothers and Granddaughters: Old-Age Pensions and Intrahousehold Allocation in South Africa” (Duflo 2000, 2003) methodology
- Address the issue of eligibility-age discrepancy
- South African Household Survey (Southern Africa Labour and Development Research Unit 2008, 2012, 2013)
- Eligibility-age equalisation in 2009

Model:

$$y_{it} = \gamma_i + \lambda_t + \mu P_{it}^f + \nu P_{it}^m + X_{it} + \delta T_{it} + \rho T_{it} * P_{it}^m + \epsilon_{it} \quad (3)$$

Pensions and Child Growth

Additional Evidence from South Africa II

Bastiaan
Quast

Introduction

Cryptocurrency
Inflation

Uncertainty,
Currency
Attacks

Pensions,
Child Growth

End Notes

References

Table : Height-for-Age Z-score

specification	1	2	3
w_spen_m	0.2366	*0.8228	0.7908
w_spen_w	-0.2331	0.1053	0.1072
elig.men.60		** -0.3419	** -0.3465
w_spen_m1:elig.men.60			0.0446
w_h_tinc	-0.0000	-0.0000	-0.0000

Pensions and Child Growth

Additional Evidence from South Africa III

Bastiaan
Quast

Introduction

Cryptocurrency
Inflation

Uncertainty,
Currency
Attacks

Pensions,
Child Growth

End Notes

References

Table : Weight-for-Age Z-score

specification	1	2	3
w_spen_m	0.2366	0.2981	0.4780
w_spen_w	-0.2331	-0.3112	-0.3280
elig.men.60		***-0.3475	** -0.3243
w_spen_m1:elig.men.60			-0.2545
w_h_tinc	-0.0000	-0.0000	-0.0000

Pensions and Child Growth

Additional Evidence from South Africa IV

Bastiaan
Quast

Table : Weight-for-Height Z-score

specification	1	2	3
w_spen_m	-0.3532	-0.3210	-0.4303
w_spen_w	0.0655	0.0371	0.0478
elig.men.60		-0.1417	-0.1574
w_spen_m1:elig.men.60			0.1484

Table : Body-Mass-Index Z-score

specification	1	2	3
w_spen_m	*-0.8058	*-0.7905	*-1.0226
w_spen_w	-0.1592	-0.1956	-0.1742
elig.men.60		-0.1674	-0.2049
w_spen_m1:elig.men.60			0.3407

Introduction

Cryptocurrency
Inflation

Uncertainty,
Currency
Attacks

Pensions,
Child Growth

End Notes

References

Bastiaan
Quast

Introduction

Cryptocurrency
Inflation

Uncertainty,
Currency
Attacks

Pensions,
Child Growth

End Notes

References

Summary

- Cryptocurrency Inflation, through multiplicity
- Currency Attacks: uncertainty vs. risk, redefining risk profile, uniform distribution
- Pensions and Child Growth: negative effect

Questions

- Cryptocurrency Inflation: relevant for Development Economics?
- Knightian Uncertainty: What to do with this critique?
- Pensions and Child Growth: Account for drop in no. children?

- Duflo, Esther. 2000. "Child health and household resources in South Africa: Evidence from the Old Age Pension program." *The American Economic Review* 90 (2): 393–398.
<http://www.jstor.org/discover/10.2307/117257>.
- . 2003. "Grandmothers and Granddaughters: Old-Age Pensions and Intrahousehold Allocation in South Africa." *The World Bank Economic Review* 17 (1): 1–25.
[doi:10.1093/wber/1hg013](https://doi.org/10.1093/wber/1hg013).
- Morris, Stephen, and Hyun Song Shin. 1998. "Unique equilibrium in a model of self-fulfilling currency attacks." *American Economic Review*:587–597.
<http://www.jstor.org/stable/116850>.

Obstfeld, Maurice. 1986. *Rational and self-fulfilling balance-of-payments crises*.

———. 1995. *The logic of currency crises*. Springer.

———. 1996. "Models of currency crises with self-fulfilling features." *European economic review* 40 (3): 1037–1047.

Southern Africa Labour and Development Research Unit. 2008. *National Income Dynamics Study, Wave 1*.
<http://www.nids.uct.ac.za/home/>.

———. 2012. *National Income Dynamics Study, Wave 2*.
<http://www.nids.uct.ac.za/home/>.

———. 2013. *National Income Dynamics Study, Wave 3*.
<http://www.nids.uct.ac.za/home/>.