

My title

Even longer subtitle

A Seminar Paper Presented

by

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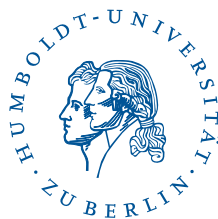
to

Dr. Martin Weber

and

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Institute of Finance



Seminar

Topics in Finance

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Abstract

Briefly summarise all your key findings in an economic context.

Keywords: .

1 Introduction

Refer to Section 2 or Section 3.

2 Definitions — relevant knowledge

Adding pictures:

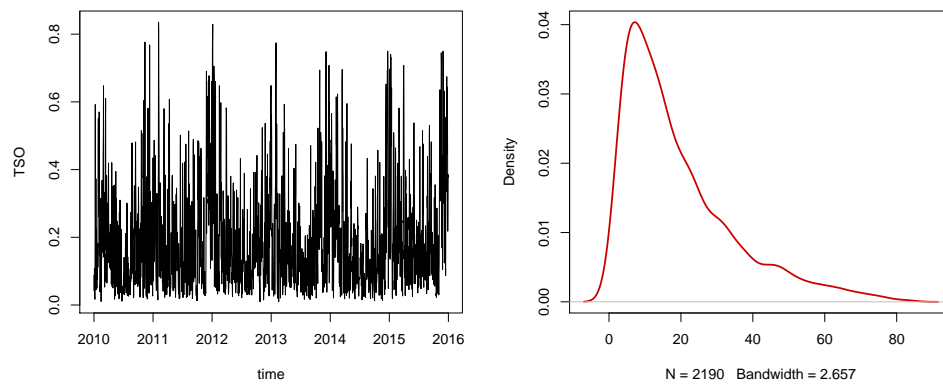


Figure 1: Time series (2010-2015) and its density of TSO data

Adding graphs:

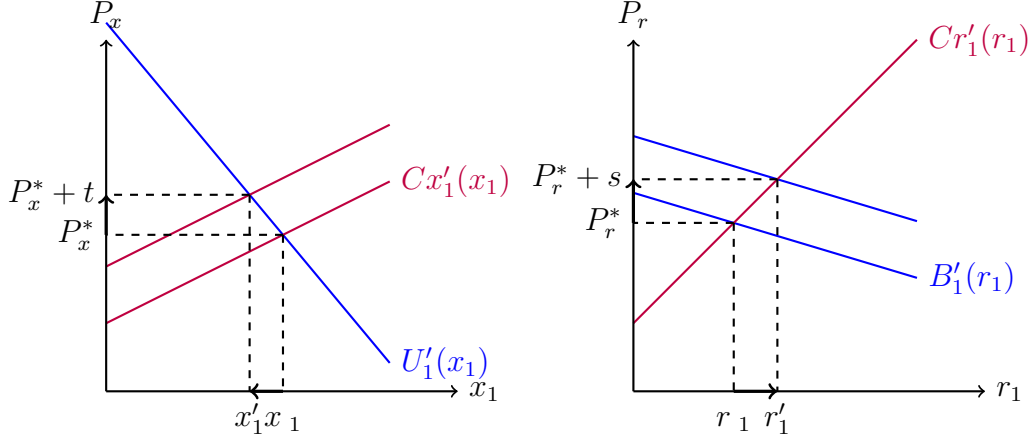


Figure 2: Deposit refund policy.

3 The Model — Methodology

Define the model, give some equations and explain them:

$$TSO(\tau_1, \tau_2) = \int_{\tau_1}^{\tau_2} \frac{WPL(s)}{C(s)} ds = \int_{\tau_1}^{\tau_2} U(s) ds. \quad (1)$$

3.1 Subsection

Add aligned equations:

$$U_t = \Lambda_t + Y_t \quad (2)$$

$$d\Lambda_t = \Lambda_t dt \quad (3)$$

$$Y_t = \mathbf{b}^\top \mathbf{X}_t \quad (4)$$

$$d\mathbf{X}_t = (\mathbf{A}\mathbf{X}_t + \mathbf{e}_p \sigma_t \theta_t) dt + \mathbf{e}_p \sigma_t dB_t^\theta, \quad (5)$$

with matrices and vectors

$$\mathbf{A} = \begin{pmatrix} 0 & 1 & 0 & \dots & 0 \\ 0 & 0 & 1 & \ddots & \vdots \\ \vdots & & & \ddots & \ddots \\ 0 & \dots & \dots & 0 & 1 \\ -\alpha_p & -\alpha_{p-1} & \dots & & -\alpha_1 \end{pmatrix} \quad \mathbf{e}_p = \begin{pmatrix} 0 \\ 0 \\ \vdots \\ 0 \\ 1 \end{pmatrix}$$

Integrals:

$$\begin{aligned} U_s &= \int_t^s \tilde{U}_u^{\eta_1} \exp(\mathbf{A}(s-u)) \mathbf{x} du + \int_t^s \tilde{U}_u^{\eta_1} \exp(\mathbf{A}(s-u)) \Lambda_u du \\ &+ \int_t^s \tilde{U}_u^{\eta_1} \exp(\mathbf{A}(s-u)) \mathbf{e}_p \sigma_u dB_u^\theta \end{aligned}$$

4 Data — Empirical results

4.1 Subsection

Some citation: Bowman & Azzalini (1997).

A table:

	Lévy				Gaussian	
	b_0	b_1	a_1	a_2	a_1	a_2
Estimate	1.000	74.268	−0.192	0.638	0.686	−0.154
Std. error	10.158	0.288	0.204	0.604	0.021	0.025

Table 1: CARMA(2,1) Coefficient estimates of the CARMA-Lévy process), CARMA(2,0) of the Gaussian process

4.2 More subsections

Link/refer to figures: Figure 2.

More citation: Weron (2008)

5 Conclusion and outlook

Brief summary of your findings.

References

- Bowman, A. & Azzalini, A. (1997), *Applied smoothing techniques for data analysis : The kernel approach with s-plus illustrations*, 1 edn, Oxford: Clarendon Press.
- Weron, R. (2008), ‘Market price of risk implied by asian-style electricity options and futures’, *Energy Economics* **30**(3), 1098 – 1115.

A Appendix

Extensive derivations and proofs belong here.