

# LES JEUDI D'ECONOMIE & DE FINANCE (JEF)

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Tunis El Manar  
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## Dual long memory and value-at-risk estimations In MENA emerging stock markets

Chaker Aloui

(ISCAE & IFG Tunisia)

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**Abstract:** In this paper we evaluate the value-at-risk (VaR) and the expected shortfalls for some Middle East and North African emerging stock markets (Egypt, Israel, Turkey and Morocco) for short and long trading positions. We investigate whether considering for long memory in return and volatility, volatility asymmetry and fat-tails can provide more accurate VaR's estimations. We compute the VaRs for two ARCH/GARCH-class specifications including FIGARCH, and FIAPARCH. These models were estimated in the presence of two alternative innovation's distributions: Student-t and skewed Student-t. Our results show that considering for long-range memory in return and volatility, fat-tails and asymmetry performs better in predicting a one-day-ahead VaR for both short and long trading positions. More importantly, the FIAPARCH model out-performs the other models in the VaR's prediction. Our findings offer potential implications for MENA stock markets risk quantifications and hedging strategies.

**JEL Classification:** C22, C50.

**Key words:** MENA stock markets; long-memory; value at risk; forecasting performance.

### Responsables du Séminaire :

Med Safouane Ben Aissa ([safouane.benaissa@univmed.fr](mailto:safouane.benaissa@univmed.fr)), Med Ayadi ([med.ayadi@gnet.tn](mailto:med.ayadi@gnet.tn)),  
Med Goàied ([mohamed\\_goaid@yahoo.fr](mailto:mohamed_goaid@yahoo.fr)) & Chaker Aloui ([chakeraloui2@yahoo.fr](mailto:chakeraloui2@yahoo.fr))