Abstract Submitted
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Information theory in econophysics: stock market and retirement funds EUGENIO VOGEL, G. SARAVIA, Universidad de La Frontera, Temuco, Chile, J. ASTETE, J. DÍAZ, R. ERRIBARREN, F. RIADI, Universidad Austral de Chile, Valdivia, Chile — Information theory can help to recognize magnetic phase transitions, what can be seen as a way to recognize different regimes. This is achieved by means of zippers specifically designed to compact data in a meaningful way at is the case for compressor wlzip [1]. In the present contribution we first apply wlzip to the Chilean stock market interpreting the compression rates for the files storing the minute variation of the IPSA indicator. Agitated days yield poor compression rates while calm days yield high compressibility. We then correlate this behavior to the value of the five retirement funds related to the Chilean economy. It is found that the covariance between the profitability of the retirement funds and the compressibility of the IPSA values of previous day is high for those funds investing in risky stocks. Surprisingly, there seems to be no great difference among the three riskier funds contrary to what could be expected from the limitations on the portfolio composition established by the laws that regulate this market.

[1] E.E. Vogel, G. Saravia, L.V. Cortez, Physica A 391 (2012) 1591.

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