Tabla Nº.4. Momentos de un proceso GARCH(1,1)

|  |  |
| --- | --- |
| **Media Incondicional (marginal)** | **Media Condicional** |
| $$E\left(ε\_{t}\right)=η\_{t}\left[\left(α\_{0}+α\_{1}ε\_{t-1}^{2}+β\_{1}h\_{t-1}\right)\right]^{1/2}$$$$E\left(ε\_{t}\right)=E\left(η\_{t}\right)E\left[\left(α\_{0}+α\_{1}ε\_{t-1}^{2}+β\_{1}h\_{t-1}\right)\right]^{1/2}$$$$E\left(ε\_{t}\right)=0\*E\left[\left(α\_{0}+α\_{1}ε\_{t-1}^{2}+β\_{1}h\_{t-1}\right)\right]^{1/2}$$$E\left(ε\_{t}\right)=0$ [11] | $$E\_{t-1}\left(ε\_{t}\right)=E\_{t-1}\left(η\_{t}\right)E\_{t-1}\left[\left(α\_{0}+α\_{1}ε\_{t-1}^{2}+β\_{1}h\_{t-1}\right)\right]^{1/2}$$$$E\_{t-1}\left(ε\_{t}\right)=0\*E\_{t-1}\left(α\_{0}+α\_{1}y\_{t-1}^{2}\right)^{1/2}$$$E\_{t-1}\left(ε\_{t}\right)=0$ [12] |
| **Varianza Incondicional (marginal)** | **Varianza Condicional** |
| $$E\left(ε\_{t}^{2}\right)=E(h\_{t})$$$$E\left(ε\_{t}^{2}\right)=E\left[α\_{0}+α\_{1}ε\_{t-1}^{2}+β\_{1}h\_{t-1}\right]$$$E\left(ε\_{t}^{2}\right)=σ\_{t}^{2}=\frac{α\_{0}}{1-α\_{1}-β\_{1}}$ [13] | $$E\_{t-1}\left(ε\_{t}^{2}\right)=E\_{t-1}\left[α\_{0}+α\_{1}ε\_{t-1}^{2}+β\_{1}h\_{t-1}\right]$$$E\_{t-1}\left(ε\_{t}^{2}\right)=σ\_{t}^{2}=α\_{0}+α\_{1}ε\_{t-1}^{2}+β\_{1}h\_{t-1}$[14] |

 **Fuente**: elaboración propia.