

The Impact of coronavirus Pandemic on the Moroccan Stock Market

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Abstract: The global health crisis has had a very significant impact on the international financial market as a whole and on the Casablanca stock exchange in particular. VaR is a market risk measurement tool applied to the Moroccan banking sector to determine the value at risk.

Keywords: COVID-19, market, VaR, Morocco

1. INTRODUCTION

Market risk is the risk of loss that can result from fluctuations in the prices of the financial instruments that make up a portfolio of assets or possibly liabilities. The various market risk factors are interest rates, exchange rates, stock prices and commodity prices. The variations of these different elements give rise to market risk.

Joël Bessis (2002) defines it as the potential downward deviation of the market value of transactions and the trading book during the liquidation period. Consequently, market risk is concentrated on the differences in market value and the market parameters are the main risk factors.

Bangia et al. (1999) propose, as the FIG 1 shows, a decomposition of the overall risk into a component linked to the fundamental value and another linked to the illiquidity, each of these components having an impact on the possible losses of the investor.

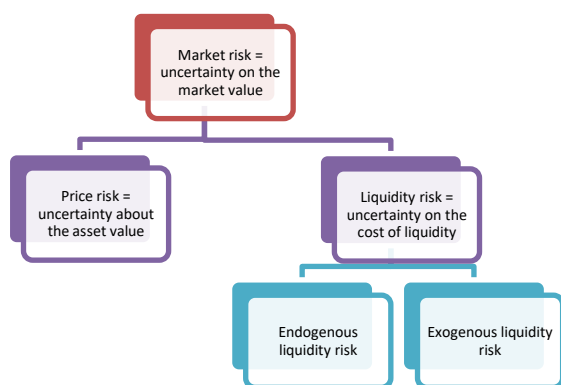


Fig -1: Risk Decomposition

Source: Bangia & al.(1999)

2. Evolution of the Moroccan banking sector after COVID-19

We will focus on its impact on the value of the company and the use of VaR to manage this risk. Uncertainties have a direct impact on the prices of listed securities, it can be positive or negative, slight or of great impact which can lead to bankrupt firms as in the case of the 2008 financial crisis. In our days (April 2020) we live another world crisis this time it is not economic or financial but health related to the coronavirus covid-19, this virus had a serious impact on the world economies and especially on the financial markets, the Casablanca stock exchange is not spared. We will see its impact on listed Moroccan banks as shown in the Chart 2:

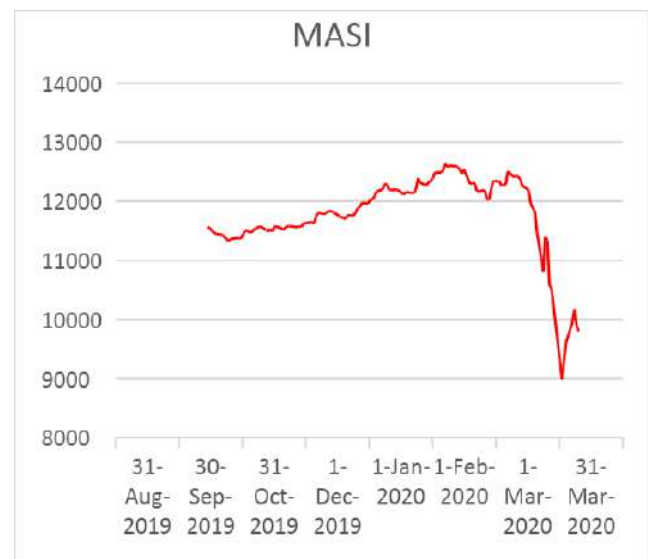


Chart -1: Evolution of the Moroccan All Shares Index (Masi)

Source: graph drawn up by us on the basis of data from the Casablanca stock exchange

This Chart shows us the impact of the coronavirus on the Masi index (made up of the most important Moroccan companies) the drop is enormous, it passed from 11496.29 in 10-02-2019 (before COVID-19 pandemic) to 8987.89 in 03-18-2020 so a loss of 2 508.4!

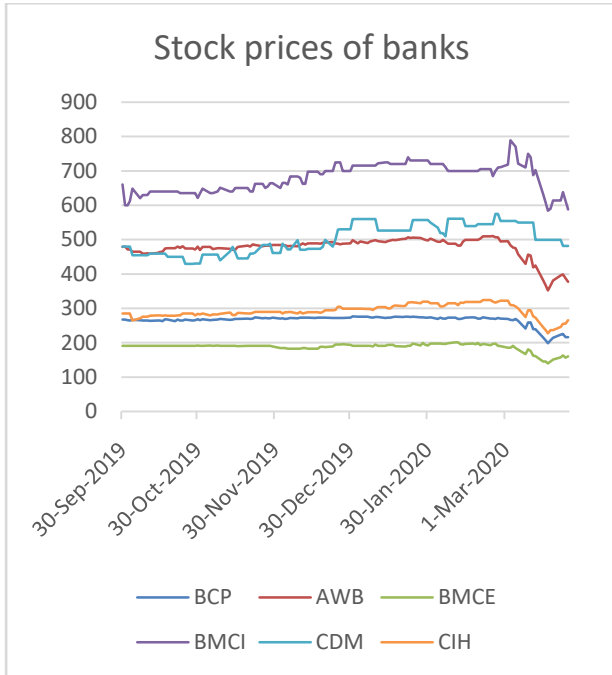


Chart -2: Stock market trends in the Moroccan banking sector

Source: graph drawn up by us on the basis of data from the Casablanca stock exchange

The Chart -3 shows that all banks are in red due to covid-19, with a greater impact on AWB and BMCI.

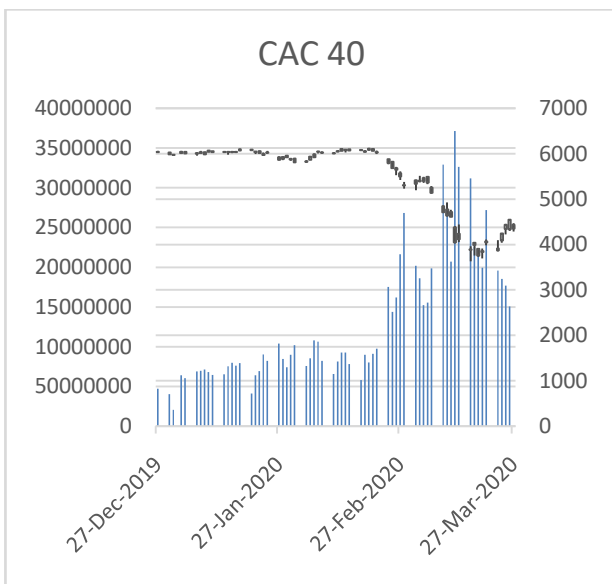


Chart -3: Evolution of the CAC 40 index

Source: graph drawn up by us on the basis of Yahoo finance data
Source: graph drawn up by us on the basis of data from the Casablanca stock exchange

As MASI, CAC 40 suffered a major fall due to this new virus COVID-19, this drop is the largest for more than 20 years.

3. The VaR as a market risk measurement tool

Risk measures have evolved since Markowitz advanced his famous theory of portfolio diversification in the late 1950s, a theory that was to revolutionize modern portfolio management. The standard deviation was then the measure of the risk of an efficient portfolio. The risk theories that followed in the footsteps of Markowitz have focused on the factors that determine the risk of a security as well as the equilibrium of financial markets.

While Value at Risk (VaR) is a simple measure of risk which gives, in general, the amount of losses that should not be exceeded for a given level of confidence over a given time horizon (Jorion, 2007).

3.1 data

The data represent the closing prices of the six financial series of the banking sector introduced on the Stock Exchange of CASABLANCA namely AWB, BCP, CDM, BMCI, BMCE, and CIH covering the period from 09/30/2019 to 30/02/2020.

3.2 Calculation of the Value at Risk: the historical and parametric method

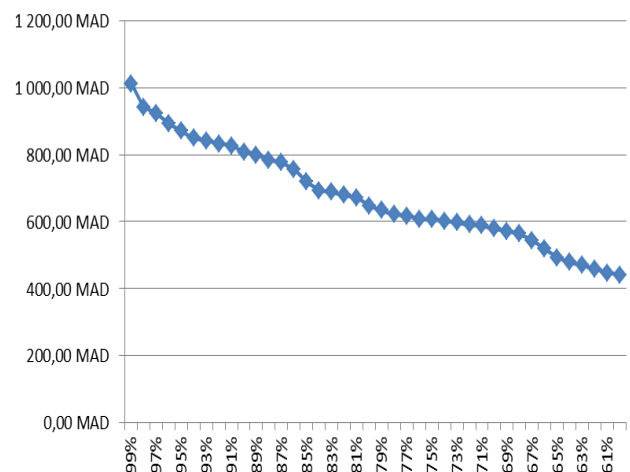


Chart -4: one day historical VaR according to alpha

Source: graph drawn up by us on the basis of data from the Casablanca stock exchange

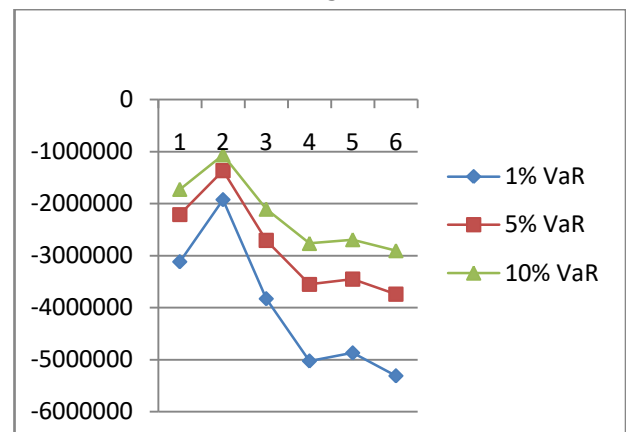


Chart -5: VaR 1-day parametric approach

Source: graph drawn up by us on the basis of data from the Casablanca stock exchange

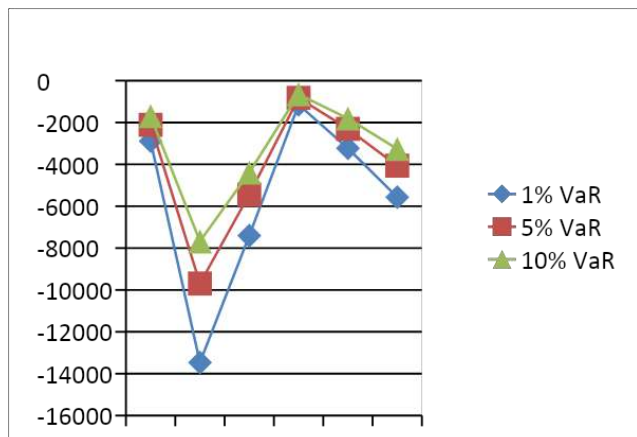


Chart -6: VaR 1-day parametric approach

Source: graph drawn up by us on the basis of data from the Casablanca stock exchange

3. CONCLUSIONS

Covid-19 has a very

The covid-19 pandemic has plunged the entire international financial system into the red as the CAC 40 shows, with a sharp fall for more than 20 years.

Since there is not yet an antidote for covid-19, uncertainty remains high and the future of the world stock markets will be disrupted as well as the world economy.

The global health crisis had a very significant impact on the international financial market as a whole and on the Casablanca stock exchange in particular. VaR is a

market risk measurement tool applied to the Moroccan banking sector to determine the value at risk.

REFERENCES

- [1] Joël Bessis: Risk Management in Banking 2002
- [2] Bangia, A., F.X. Diebold, T. Shuermann and J.D. Stroughair : Modeling Liquidity Risk, Risk 12, january 1999, pp. 68-73.
- [3] Lawrence Green, Ming-Chien Sung, Tiejun Ma, Johnnie E.V. Johnson. : To what extent can new web-based technology improve forecasts? Assessing the economic value of information derived from Virtual Globes and its rate of diffusion in a financial market European Journal of Operational Research 278 (2019) 226-239
- [4] Anandhi Bharadwaj , Mark Keil, Magnus Mähring: Effects of information technology failures on the market value of firms Journal of Strategic Information Systems 18 (2009) 66-79
- [5] P. van Bommel, B. van Gils, H.A. Proper, M. van Vliet, Th.P. van der: Weide Value and the information market Data & Knowledge Engineering 61 (2007) 153-175
- [6] Tamer Elshandidy: Value relevance of accounting information: Evidence from an emerging market Advances in Accounting, incorporating Advances in International Accounting (2014)
- [7] Joost V. Bats, Aerd C. F. J. Houben : Bank-based versus market-based financing: Implications for systemic risk Journal of Banking & Finance Volume 114 May 2020 Article 105776