The impact of banking governance on risk taking and banking performance:
Case of listed banks in the Mena region
"During the COVID 19 health crisis"

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Abstract: After treating the subject between the 2015-2019 financial year, we are supposed to test the same hypotheses published in the previous article[1] during COVID Crisis. This article aims to measure the impact of banking governance on risk taking and bank performance, particularly during the COVID19 period, by working on the same sample. The data for the Y-2020 was extracted from S&P Capital IQ. A comparison between the results obtained in 2019 vs 2020 are based on the same assumptions. We conclude that the presence of the Sovereign Wealth Fund ownership, women on board committee, independent administrators has a positive impact on the performance of banks in the region, with some changes reported in detail.

The article presents a detailed study describing the impact of governance mechanisms before and during Covid crisis.

Keywords: Board Members, Ownership Structure, Corporate Governance Mechanisms, Bank Performance, Agency theory, Camels approach, State owned structure, Sovereign wealth funds (K>5%), independant directors, ESOP ownership.

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1. Introduction

Covid'19 is a pandemic and a health crisis. It is originated in China at the end of 2019, spreading globally, thereafter. Governments in both developed and developing countries implemented strict protocols and lockdown restrictions to minimize the virus's impact.

It is also a severe economic shock that has affected the whole world. The world economy has already lost 6 points of GDP, falling to -3% according to the IMF. Of course, regions and countries are not affected in the same way and to the same extent. This depends, among other factors, on their pre-crisis economic, financial, social and political situations, the scale and speed of spread of the pandemic and the quality of the reaction of the public authorities.

Schools, colleges, and offices closed, sending their employees to their homes. With the exception of suppliers of essentials, such as food, and medicines, in person retail selling, along with life events such as weddings, and travel, ceased. Online sales and online communication, such as Zoom meetings surged. In other words, there was widespread disruption in economic activity across sectors (Koutoupis et al. 2021).

Advanced countries have been affected more than others. For example, North America, Western Europe and Australia and New Zealand lost 6%, 7.3% and 6.7% respectively. The world economy is in hibernation, which implies the partial or total cessation of production and therefore of the distribution of income. These crises of internal supply and demand and the closing of borders have caused the dysfunction of global value chains, the fall in international trade, tourist receipts, migrant transfers... The economic interdependence of countries reinforced by the process of globalization is a factor in the spread of both the virus and the economic shock.

It should be remembered that a greater international financial crisis than that of 2008 has already been anticipated by economists from 2021. Covid'19 was triggered in a context marked by negative expectations. In emerging countries and in addition to the effects of confinement on economic activity, this crisis has been reinforced by a sharp increase in global risk aversion and a sudden reduction in foreign capital flows (Sudden stop).

African countries are affected by the pandemic and the economic recession in very heterogeneous ways. But overall, Africa remains the least affected continent to date, with 11,979,753[2] cases recorded and 254,661 deaths linked to Covid-19 declared on 20-06-2022.

Its 2020 real GDP is expected to fall by 1.7% according to the IMF. The crisis in the capitalist system is a completely normal thing, it is the end of one period and the start of another. What is needed are the necessary instruments to deal with it. In several developed countries, unconventional economic stimulus and expansionary monetary policies have been instituted.

The adoption of this type of policy would come up against several obstacles in Africa. Among which is the first line of low financial inclusion. Banks are also called upon to change business models and play an even more important role than before.

According to Basel Committee on Banking Supervision banking governance is necessary to ensure the soundness of the financial system and the economic development of the country, drawing attention to the study, understanding and improvement of the governance of financial entities. Banking governance has taken precedence over the concerns of managers, shareholders, academics, professionals, governments and international organizations, particularly following numerous scandals, such as: Enron, Worldcom, Parlamat and Vivendi, which have shook the economic world in recent years. The debate on bank governance has continued to grow. The latter is of crucial importance for both developed and developing countries.

Are the mechanisms of banking governance still necessary to deal with the shock caused by the current health crisis? What is its impact on risk taking and bank performance during the current health crisis in the MENA region?

To answer these questions, we are going to present a comparison between the results obtained previously (pre-codiv Before 2019) vs the results obtained during the current crisis (financial year 2020) based on the same assumptions, and on the same sample. (Bank listed in the Mena region).

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[2] https://www.bbc.com/afrique/resources/idt-9de64648-267c-4de9-8d78-05007b5c6d29

2. Theoretical Background and Hypotheses Development

2.1. Theoretical Background

The crisis is one of the threats that impact the survival and performance of companies (Comfort, 2002; Boin, 2009; Williams et al., 2017. The current health crisis has become a real threat and a challenge for the business world, not only in certain regions, but for all businesses globally. In this regard, several stakeholders in different fields are collaborating with each other to be able to provide effective solutions, in order to control and pass the harmful effects of this crisis with good anticipation (Kuckertz et al., 2020).

Concerning the fundamental role of corporate governance is to regulate the actions of the board of directors. It is a control and monitoring system in which the board of directors supervises the work of the management to maximize shareholder value (Jebran and Chen 2020). Corporate governance is one of the most important dimensions of ESG (environmental, social and governance) factor revealing its ability to ensure legitimacy (Brammer and Pavelin 2008), trust (Akhtaruzzaman et al. 2021) and the reputation of banking firms in times of crisis (Buallay
2019; Miralles-Quiros et al. 2019).

Studies on the role of internal and external corporate governance mechanisms in sustaining bank performance during the pandemic are still very scarce (Khatib and Nour 2021). A few restrictions to effective corporate governance were found, including presence of management on the board of directors, lack of women on the board, excessive boards of directors, large or small, and boards of directors that have failed to assess senior management impartially (see El-Chaarani 2015 for a review). There is little literature on the impact of these corporate governance mechanisms on banks, particularly in the MENA region, current pandemic of COVID-19 2020-2021.

2.2 Hypotheses Development (During covid crisis):

H.1 There is a link between Ownership structure and bank performance :
The presence of State, ESOP[3], and SWF[4] as a shareholders promotes bank's perfromance.

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[3] ESOP: Employee stock Ownership plan

H.2 Risk taking impact bank performance :
The risk-taking behavior of woman present on the board committee has a negative impact on bank performance.

H.3 There is a relationship between board of director & committes on bank performance
The presence of independent directors and executive directors, the size of the board, the number of committees, positively impact bank performance;

2.3 Sampling

Our research aims to examine the relationship between governance mechanisms, risk taking and the performance of listed banks in MENA REGION, specially in the context of the health crisis related to COVID 19. More specifically, we examined the effect of the characteristics of the board of directors (size of the board, the presence of independent directors, committees, the ownership structure ….) on economic and financial performance, (ROA/ROE/Cash flows generated, market capitalization, capital adequacy….) And this, using 2020's data compared to 2015-2019's one. The selected sample includes all listed banks based in the Mena region. The study covered 141 banks in 19 countries.

We found that there are countries with unlisted banks such as Algeria, IRAQ, Syria, Libya and Yemen. These countries are therefore excluded from our sample.

The choice of such a sample stems from the scarcity of scientific research carried out in the MENA region, and since our research coincides with the current health crisis "COVID 19", we are interested in carrying out the same study according to the current context.

2.4 Selected variables

Analyze the performance and soundness of 141 listed banks based in the Mena region with 2019 data compared to Y2020 using the **CAMELS approach.** The Table 2 below presents the variables of our study:

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[4] SWF : Sovering wealth Funds

Table 1: Selected variables

Dependent Variables		
Performance according to the camel approach	Capital adequacy	TCR
	Asset quality	ROA Nonperforming Loans / Total Assets % Nonperforming Loans / Total Loans % Nonperforming Assets / Total Assets %
	Management Quality	Total Revenue Annual Growth Rate Over Five Years Total Deposits Annual Growth Rate Over Five Years
	Earnings	ROE ROCE SVA EBT MARGIN NET INCOME MARGIN
	Liquidity	Net Loans / Total Deposits % Cash from Ops Cash from Investing Cash from Financing Net change Cash
	Sensitivity	Share price Share out Market Capitalization
Independent Variables		
Ownership structure	PAM : Présence d'actionnaire majoritaire; SOS: State Owned Shares; CORPRIV: Corporations (Private); CORP: Corporations (Public); INVINST: Institutions; INDINS: Individuals/Insiders POO : Public and other ESOP : Employee stock Ownership plan SWF: Sovering wealth Funds	PAM SOS COPRIV CORP INVINST INDINS POO
Risk taking	Présence des femmes	PRFM
Board members and Committes	PCAI: Independent Chairman of the board of directors, DI: Independent Director; DINE : Non Executif Independent Director; DNE: Non Executif Director, MSS : Shariaa Member; NC : Number of committee ; PCAUD : Audit Committee; PCC: Compensation Committee, PCN: Nomination committee	PCAI DI DINE DNE MSS NC PCAUD PCC PCN
Control Variables		
Bank Size : TCA		

3 Data analysis

3.1 Descriptive analysis [5]

We present in what follows, the descriptive statistics, and the analysis of the relationship between the ownership structure, the Board members and the main committees and bank performance. Table 42 presents the descriptive statistics corresponding to our study including the mecanism of banking governance, as well as the performance indicators of banks based in the MENA region pre- and during COVID (2019 vs 2020).

Table 2 : Descriptive statistics

Statistiques descriptives										
	FY2019					FY 2020				
Variables	N	Minimum	Maximum	Moyenne	Ecart type	N	Minimum	Maximum	Moyenne	Ecart type
Return on Assets %	141	0,00%	5,79%	1,39%	0,94%	140	-3,93%	3,56%	0,5821%	1,1%
Return on Equity %	141	0,00%	56,99%	11,88%	8,07%	140	-36,92%	27,48%	4,9052%	9,7%
Return on Common Equity %	141	0,00%	56,99%	11,80%	8,15%	140	-75,64%	24,92%	3,9693%	11,8%
Shareholders Value Added	138	0	4684,7	158,35	449,77	139	-2683,100	1076,058	**-140,525**	334,1
Net Interest Income / Total Revenue %	134	5,79%	543,21%	90,64%	51,46%	140	-81,48%	6031,95%	**177,9670%**	560,1%
EBT Margin %	134	0,12%	213,33%	46,54%	23,14%	140	-3021,12%	85,54%	**-23,8007%**	315,2%
Net Income Margin%	141	0,00%	243,33%	38,98%	33,28%	140	-225,16%	68,03%	18,0265%	34,9%
Nonperforming Loans / Total Loans %	141	0,00%	48,68%	4,18%	5,65%	141	0,00%	58,13%	**5,0466%**	7,86%
Nonperforming Loans / Total Assets %	141	0,00%	54,28%	2,67%	5,04%	141	0,00%	83,81%	**3,6431%**	9,99%
Nonperforming Assets / Total Assets %	141	0,00%	58,70%	3,03%	5,64%	141	0,00%	89,05%	**4,1570%**	10,77%
Net Loans / Total Deposits %	139	0,00%	986,22%	103,88%	108,35%	139	0,00%	995,35%	104,0497%	109,35%
Total Capital Ratio %	140	0,00%	38,23%	12,45%	8,97%	2	0	0	0,00	0,000
Total Revenue	141	0,00%	37,47%	9,71%	8,82%	137	-56,46%	85,52%	2,9848%	15,17%
Total Deposits	139	0,00%	56,77%	9,36%	9,55%	138	-9,39%	40,38%	7,9797%	9,47%
Cash from Ops.	140	1,41	24 998,60	1 127,90	2 737,00	138	-13235,20	21017,86	**-373,62**	3353,30
Cash from Investing	140	0,03	6 473,90	663,3	1 183,50	138	-8547,80	1430,98	**-712,83**	1701,89
Cash from Finacing	140	3,5	29 648,80	1 614,20	3 400,70	139	-3417,30	25042,62	1975,28	5062,83
Net Change in Cash	140	1,8	6 624,70	673,1	992,5	139	-3098,20	23916,23	901,05	3241,78
Share Price	139	0	156	5,9	16,4	139	0,00	77,22	4,95	10,66
Shares Out.	139	0	10 901,10	1 738,30	2 213,20	139	0,00	10911,02	1775,75	2179,91

P 2015-2019   P2020-2016

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[5] *No significant impact on the independent and control variables (as shown in the previously published article:).*

Market Capitalization	139	0	53 275,40	4 543,40	8 996,30	139	0,00	53310,59	4189,71	8708,13
Majority shareholder	141	0	1	0,54	0,5	141	0	1	0,54	0,500
Institutions	140	0,00%	79,90%	10,29%	13,26%	140	0,00%	79,90%	10,29%	13,26%
Individuals/Insiders	139	0,00%	81,12%	7,03%	13,18%	139	0,00%	81,12%	7,03%	13,18%
State Owned Shares	139	0,00%	59,67%	5,58%	11,06%	139	0,00%	59,67%	5,58%	11,06%
Corporations (Public)	140	0,00%	99,88%	19,24%	28,75%	140	0,00%	99,88%	19,24%	28,75%
ESOP	139	0,00%	37,52%	0,62%	4,42%	139	0,00%	37,52%	0,62%	4,42%
Sovering wealth Funds (> 5% stake)	139	0,00%	75,29%	5,85%	13,54%	139	0,00%	75,29%	5,85%	13,54%
Corporations (Private)	140	0,00%	92,43%	13,71%	20,19%	140	0,00%	92,4%	13,7%	20,2%
VC/PE Firms (>5% stake)	140	0,00%	41,12%	2,40%	7,33%	140	0,0000%	41,1%	2,4%	7,33%
Public and Other	139	0,00%	99,96%	35,70%	23,70%	139	0,000%	99,96%	35,7%	23,7%
Presence of women on board of directors	141	0	3	0,53	0,723	141	0	3	0,53	0,723
Board size	141	0	18	8,18	3,072	141	0	18	8,18	3,072
Independant chairman	141	0	2	0,15	0,377	141	0	2	0,15	0,377
Independant directors	141	0	6	1,74	1,81	141	0	6	1,74	1,81
Non executif independant directors	141	0	8	0,79	1,677	141	0	8	0,79	1,677
Non executif directors	141	0	9	1,16	1,97	141	0	9	1,16	1,97
Executif directors	141	0	12	3,62	3,023	141	0	12	3,62	3,023
Member of Shariah Supervisory Board	141	0	2	0,06	0,273	141	0	2	0,06	0,273
Number of committe	141	0	10	5,94	3,005	141	0	10	5,94	3,005
Audit committe	141	0	1	0,86	0,35	141	0	1	0,86	0,35
Compensation committe	141	0	1	0,78	0,416	141	0	1	0,78	0,416
Nomination committe	141	0	1	0,59	0,494	141	0	1	0,59	0,494
N valide (liste)	126					126				

- **Control variables**

The maximum number of members of the director's board is 18 members.

- **Independent variables**

Ownership structure

On average, 54% of the banks have a majority shareholder; 35% of the shares are held by "Public and Other", 19% by "Public corporation", 14% by "Private corporation", 10% by institutional investors and 7% by individuals/insiders as to the percentage owned by the state does not exceed 5.6 %.

Risk taking

We notice the presence of 3 women maximum on the Board of Directors. And, on average, 53% of women are present on board members.

Board members and other committe

On average:

*8 members make up the board members;

*Board members is composed of 3 independent directors (2 DI + 1 DINE);

*6 committees per bank;

*Presence of 86% of audit committees, 79% of Remuneration Committee and 60% of Nomination Committee.

-Dependent variables

We understand the significant impact of the current health crisis on the performance of banks. Note that the minimum turns red for almost financial indicators, which is not the case at the end of Y:2019 (Minimum : Only 0). The standard deviation becomes increasingly relevant as follows:

Table 3 : Evolution of standard deviation PRE- & Post COVID 19
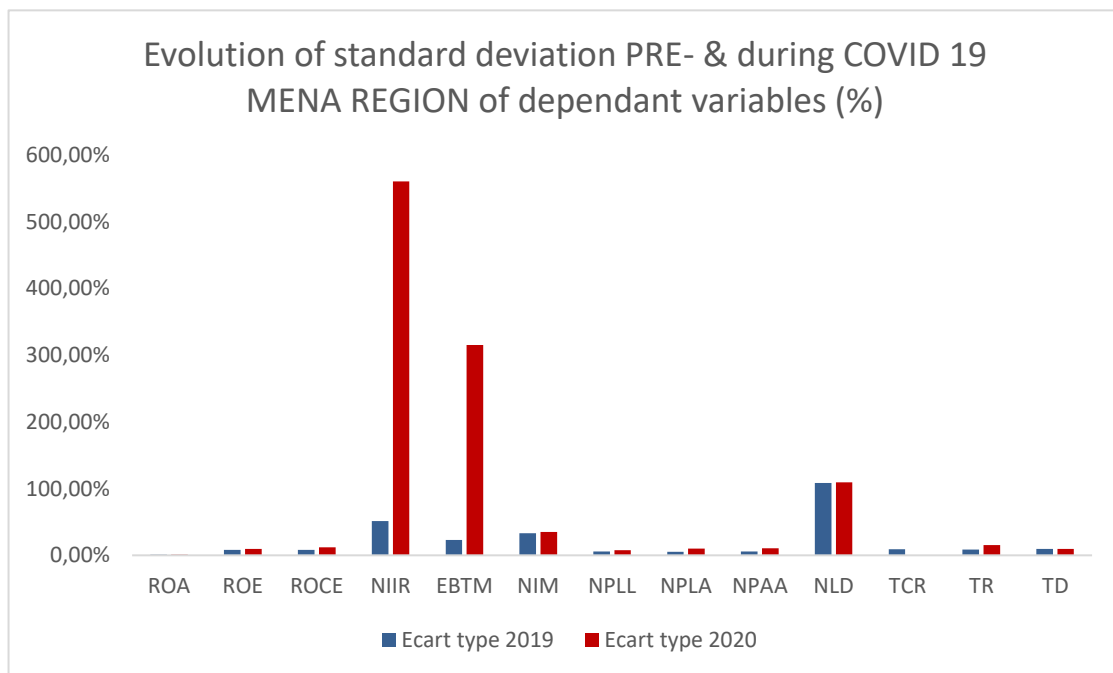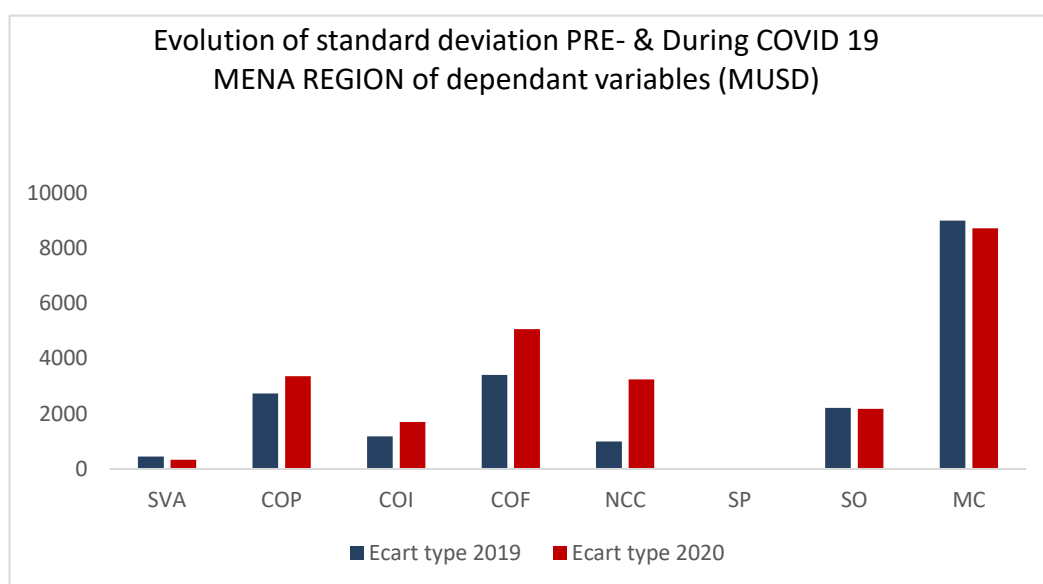*MENA REGION of dependant variables (%)*

Table 2 : Evolution of standard deviation PRE- & Post COVID 19
MENA REGION of dependant variables (MUSD)

3.2 Our model vs hypothesis: (ANOVA TEST)

We opted for the same model followed on the previous article, which is presented bellow:

Table 4: Our model and hypothesis/ ANOVA TEST

Principal hypothesis	Under assumption	CAMELS	Ratios	ANOVA TEST	
				H0 Rejected	H0 accepted
H1. The impact of ownership structure on bank performance H2 The impact of Risk taking on bank performance H3. The impact of Board members and committes on bank perfromance	**H1.a** The impact of ownership structure on capital adequacy	C	**TCR** The Total Capital Ratio (TCR) is defined as **TCR = Total Capital / Risk Weighted Assets**: Total Capital is the total of the Bank's eligible Capital and Reserves; Risk Weighted Assets are the credit institution's assets or off-balance sheet exposures weighted according to risk.	TCR	
	H2. a The impact of the presence of women on capital adequacy				
	H3.a the impact of board members and other committees on capital adequacy				TCR
	H1.b The impact of ownership structure on the quality of assets.	A	Return On assets Nonperforming Loans / Total Assets % Nonperforming Loans / Total Loans % Nonperforming Assets / Total Assets %	NPLL NPAA	ROA NPLA
	H2.b The impact of the presence of women on the quality of assets.				ROA NPLA NPLL NPAA
	H3.b The impact of board members and other committees on the quality of assets.			ROA	NPLA NPLL NPAA
	H1.c The impact of ownership structure on the quality of management.	M	Total revenue annual growth rate over five years Total deposits annual		TR TD
	H2.c The impact of the presence of women on the quality of management.				

			growth rate over five years		
	H3.c *The impact of board members and other committees on the quality of management.*				
	H1.d *The impact of ownership structure on earnings.*	E	ROE ROCE SVA EBT MARGIN NET INCOME MARGIN	EBT MARGIN NIM	ROE ROCE SVA
	H2.d *The impact of the presence of women on earnings.*			NIM	ROE ROCE SVA EBT MARGIN
	H2.d *The impact of the presence of women on earnings.*				ROE ROCE SVA EBT MARGIN NIM
	H1.e *The impact of ownership structure on liquidity.*	L	Net Loans /Total Deposits % Cash from Ops Cash from Investing Cash from Financing Net change Cash	CFO CFI CFF	NLD NCC
	H2.e *The impact of the presence of women on liquidity.*				NLD CFO CFI CFF NCC
	H3.e *The impact of of board members and other committees on liquidity.*			CFI	NLD CFO CFF NCC
	H1.f *The impact of ownership structure on sensitivity.*	S	Share price Share out Market Capitalization	SO MC	SP
	H2.f *The impact of the presence of women on sensitivity.*			SO	SP MC
	H3.f *The impact of board members and other committees on sensitivity.*				

4   Results & discussion

H1. Impact of Ownership structure on performance using CAMELS approach

H1.a) Impact of Ownership Structure on Capital adequacy

Résultats			2019 (PRE COVID)				2020 (During COVID)

DV: TCR
IV: POO, VSPEFIR, ESOP, SOS, F, INVINST, INDINS, CORPRIV, CO

ANOVA	Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
	Régression	1906,207	9	211,801	2,992	0,003
	de Student	8849,788	125	70,798		

Récapitulatif des modèles	Modèle	R	R-deux	R-deux ajusté	Erreur standard l'estimation
	RM	0,421	0,177	0,118	8,41%

Multiple Regression Analysis	Modèle	B	Erreur standard	Bêta	t	Sig.
				Coefficients non standardisés	Coefficients standardisés	
	(Constante)	10,207	8,409		1,214	0,227
	SOS	0,224	0,11	0,249	2,038	0,044

H1.b) Impact of Ownership Structure on Asset Quality

DV: NAA
IV: POO, VSPEFIR, ESOP, SOS, F, INVINST, INDINS, CORPRIV, CO

ANOVA	Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
	Régression	628,788	9	69,865	2,305	0,02
	de Student	3817,545	126	30,298		

Récapitulatif des modèles	Modèle	R	R-deux	R-deux ajusté	Erreur standard l'estimation
	RM	0,373	0,141	0,08	5,50%

Multiple Regression Analysis	Modèle	B	Erreur standard	Bêta	t	Sig.
				Coefficients non standardisés	Coefficients standardisés	
	(Constante)	4,841	5,501		0,88	0,381
	SOS	0,175	0,072	0,303	2,432	0,016

H1.c) Impact of Ownership Structure on Management Quality

After carrying out the Anova test, we find that the 2 ratios, i.e. the growth of total revenue and total deposits in significant, indeed p>5%.

NO significant link between the Impact of Ownership Structure on: Capital adequacy/Asset quality/ Earning ability and on Management Quality

H1.d) Impact of Ownership Structure on Earning Ability

DV: EBIT
IV: POO, VSPEFIR, ESOP, SOS, F, INVINST, INDINS, CORPRIV, CO

ANOVA	Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
	Régression	16245,812	9	1805,09	4,084	0
	de Student	52598,455	119	442,004		

Récapitulatif des modèles	Modèle	R	R-deux	R-deux ajusté	Erreur standard l'estimation
	RM	0,485	0,236	0,173	21,02%

Multiple Regression Analysis	Modèle	B	Erreur standard	Bêta	t	Sig.
				Coefficients non standardisés	Coefficients standardisés	
	(Constante)	76,91	21,011		3,66	0
	ESOP	1,535	0,455	0,303	3,375	0,001
	INVINST	-0,502	0,245	-0,23	-2,044	0,043

H1.d) Impact of Ownership Structure on Earning Ability

DV: NIM
IV: POO, VSPEFIR, ESOP, SOS, F, INVINST, INDINS, CORPRIV, CO

ANOVA	Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
	Régression	24282,235	9	2698,033	2,639	0,008
	de Student	128806,453	126	1022,273		

Récapitulatif des modèles	Modèle	R	R-deux	R-deux ajusté	Erreur standard l'estimation
	RM	0,393	0,159	0,099	31,97%

Multiple Regression Analysis	Modèle	B	Erreur standard	Bêta	t	Sig.
				Coefficients non standardisés	Coefficients standardisés	
	(Constante)	83,775	31,954		2,622	0,01
	INVINST	-0,924	0,373	-0,362	-2,478	0,015

H1.e) Impact of Ownership Structure on Liquidity

DV: CFI
IV: POO, VSPEFIR, ESOP, SOS, F, INVINST, INDINS, CORPRIV, CO

No significant link on COI

DV: COI
IV: POO, VSPEFIR, ESOP, SOS, INVINST, INDINS, CORPRIV, CORP

ANOVA	Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
	Régression	113 948 350,3	9,0	12 660 927,8	5,5	0,0
	de Student	281 392 304,9	123,0	2 287 742,3		

Récapitulatif des modèles	Modèle	R	R-deux	R-deux ajusté	Erreur standard l'estimation
	RM	0,537	0,288	0,236	1512,528

Multiple Regression Analysis	Modèle	B	Erreur standard	Bêta	t	Sig.
				Coefficients non standardisés	Coefficients standardisés	
	(Constante)	-53,629	1511,616		-0,035	0,972
	F	-59,435	17,897	-0,468	-3,321	0,001

DV: CFO
IV: POO, VSPEFIR, ESOP, SOS, F, INVINST, INDINS, CORPRIV, CO

ANOVA	Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
	Régression	250214354	9	27801594,9	4,417	0
	de Student	786791398,3	125	6294331,19		

Récapitulatif des modèles	Modèle	R	R-deux	R-deux ajusté	Erreur standard l'estimation
	RM	0,491	0,241	0,187	2508,850571

Multiple Regression Analysis	Modèle	B	Erreur standard	Bêta	t	Sig.
				Coefficients non standardisés	Coefficients standardisés	
	(Constante)	443,83	2507,337		0,177	0,86
	F	94,654	29,65	0,461	3,191	0,002

DV: CFO
IV: POO, VSPEFIR, ESOP, SOS, INVINST, INDINS, CORPRIV, CORP

ANOVA	Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
	Régression	793 839 093,5	9	88 204 343,7	4,019	0,00
	de Student	2 721 306 855,8	124	21 946 023,0		

Récapitulatif des modèles	Modèle	R	R-deux	R-deux ajusté	Erreur standard l'estimation
	RM	0,48	0,23	0,17	4684,66

Multiple Regression Analysis	Modèle	B	Erreur standard	Bêta	t	Sig.
				Coefficients non standardisés	Coefficients standardisés	
	(Constante)	-228,164	4681,833		-0,049	0,961
	F	144,064	55,418	0,381	2,600	0,010

DV: CFI
IV: POO, VSPEFIR, ESOP, SOS, F, INVINST, INDINS, CORPRIV, CO

ANOVA	Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
	Régression	65437644,52	9	7270849,39	7,136	0
	de Student	127353736	125	1018829,89		

Récapitulatif des modèles	Modèle	R	R-deux	R-deux ajusté	Erreur standard l'estimation
	RM	0,583	0,339	0,292	1009,371036

Multiple Regression Analysis	Modèle	B	Erreur standard	Bêta	t	Sig.
				Coefficients non standardisés	Coefficients standardisés	
	(Constante)	76,615	1008,762		0,076	0,94
	F	44,846	11,933	0,507	3,753	0

DV: CFF
IV: POO, VSPEFIR, ESOP, SOS, F, INVINST, INDINS, CORPRIV, CO

ANOVA	Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
	Régression	579887279,3	9	64431920	7,908	0
	de Student	1018413438	125	8147307,5		

Récapitulatif des modèles	Modèle	R	R-deux	R-deux ajusté	Erreur standard l'estimation
	RM	0,602	0,363	0,317	2854,348875

Multiple Regression Analysis	Modèle	B	Erreur standard	Bêta	t	Sig.
				Coefficients non standardisés	Coefficients standardisés	
	(Constante)	599,38	2852,627		0,2	0,834
	F	146,538	33,745	0,575	4,343	0

NO significant link between the Impact of Ownership Structure on CFI/CFF

H1.f) Impact of Ownership Structure on Sensitivity to market risk

DV: SO
IV: POO, VSPEFIR, ESOP, SOS, F, INVINST, INDINS, CO

ANOVA	Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
	Régression	181985192,2	9	20220576,9	5,903	0
	de Student	424771958	124	3425580,31		

Récapitulatif des modèles	Modèle	R	R-deux	R-deux ajusté	Erreur standard l'estimation
	RM	0,548	0,3	0,249	1850,832328

Multiple Regression Analysis	Modèle	B	Erreur standard	Bêta	t	Sig.
				Coefficients non standardisés	Coefficients standardisés	
	(Constante)	138,909	1849,716		0,075	0,94
	F	72,163	21,892	0,459	3,296	0,001

DV: SO
IV: POO, VSPEFIR, ESOP, SOS, INVINST, INDINS, CORPRIV, CORP

ANOVA	Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
	Régression	179 609 372,34	9,00	19 956 596,93	6,20	0,00
	de Student	399 223 509,89	124,00	3 219 544,43		

Récapitulatif des modèles	Modèle	R	R-deux	R-deux ajusté	Erreur standard l'estimation
	RM	0,557	0,310	0,260	1794,309

Multiple Regression Analysis	Modèle	B	Erreur standard	Bêta	t	Sig.
				Coefficients non standardisés	Coefficients standardisés	
	(Constante)	131,796	1793,227		0,073	0,942
	F	74,58035105	21,22627989	0,486110033	3,513585586	0,000617746

DV: MC
IV: POO, VSPEFIR, ESOP, SOS, F, INVINST, INDINS, CO

ANOVA	Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
	Régression	2683399298	9	298155478	4,395	0
	de Student	8409469108	124	67818299,3		

Récapitulatif des modèles	Modèle	R	R-deux	R-deux ajusté	Erreur standard l'estimation
	RM	0,492	0,242	0,187	8235,186656

Multiple Regression Analysis	Modèle	B	Erreur standard	Bêta	t	Sig.
				Coefficients non standardisés	Coefficients standardisés	
	(Constante)	-359,33	8230,231		-0,044	0,965
	F	300,117	97,409	0,447	3,081	0,003

DV: MC
IV: POO, VSPEFIR, ESOP, SOS, INVINST, INDINS, CORPRIV, CORP

ANOVA	Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
	Régression	2 352 453 786,2	9	261 383 754,0	4,029	0,00
	de Student	8 045 036 208,4	124	64 879 324,3		

Récapitulatif des modèles	Modèle	R	R-deux	R-deux ajusté	Erreur standard l'estimation
	RM	0,48	0,23	0,17	8 054,77

Multiple Regression Analysis	Modèle	B	Erreur standard	Bêta	t	Sig.
				Coefficients non standardisés	Coefficients standardisés	
	(Constante)	444,68	8 049,91		0,06	0,96
	F	261,486	95,286	0,402	2,744	0,007

The results obtained relating to the impact of ownership structure on the performance of banks in the region, using CAMELS APPROACHES, demonstrate the following:

*The Impact of Ownership Structure on: Capital adequacy/Asset quality/ Earning ability and on Management Quality, is no longer significant;
*The presence of SWF has a positive impact on business liquidity, particularly operating and investment cash flows. Same conclusion applies to Sensitivity to market risk: Share outstanding and Market capitalization.

The results of the multiple regression " during COVID crisis" relating to the variable "Sovereign wealth funds (K>5%) vs the liquidity ratios of banks, in particular cash flow from operating, cash flow from investing still demonstrates a strong and positive correlation between the 2 types of dependent variables.

Remembering that during the 2000s, we note a rise in power of sovereign wealth funds which was alternatively perceived as a form of threat to the national sovereignty of host countries, due to the lack of transparency of these funds and their supposed ambition to invest in strategic sectors, then as an element favorable to international financial stability, and an important vehicle for financing the economies of industrialized countries. A consensus now seems to exist to recognize the positive role of these funds. At the onset of the financial crisis, their equity investments in Western banks were even hailed as a bailout of the global financial system, leading some observers to argue that "sovereign wealth funds play a fundamentally stabilizing role within the system. international financial institution and this finding is clearly verified in the current liquidity crisis" (Senate Finance Committee (2008), p. 11).

For macroeconomic and financial reasons, sovereign wealth funds represent medium, long and even very long-term investors. They favor so-called buy and hold strategies, and therefore a low rotation of assets in their portfolios, accompanied by a reasonable profitability requirement, a priori stabilizing for the system. Their stabilizing role is no longer to be demonstrated. They had, in fact, to intervene as a financier of last resort by making massive injections of liquidity into a banking sector hit hard by the subprime crisis.

Generally speaking, it is better for a company to have a sovereign wealth fund in its capital than not at all; this presence providing it with deep liquidity and offering it a gateway and therefore the possibility of developing in the territory from which the fund originates. Thus, American banks that have opened their capital to Chinese sovereign wealth funds have been able to increase their activities in China. On the other hand, those already present in this country and which do not house any Chinese sovereign wealth fund have had to revise their ambition to conquer this market downwards.

According to the results of the tests carried out above, it is clearly explained that the variable SWF (K>5%) still (during covid crisis) has a considerable effect on the sensitivity to the market in particular the shares outstanding and the market capitalization.

Let's remember that a survey by IFSWF[6] that looked at the distribution of sovereign wealth fund allocations to specific asset classes across geographic regions. The survey results show that most funds invest in globally listed stocks. North America received the largest proportion of SWF allocations, followed by Europe, then Asia. Indeed, survey responses confirmed that the United States, United Kingdom and Japan were the three preferred investment countries, reflecting the fact that these three countries are the largest markets measured by the market capitalization, according to ***Bank of America Merrill Lynch's Transforming World Atlas: Investing Themes Illustrated by Maps.*** Only a small percentage of funds are allocated to the Middle East and North Africa (MENA). It should be noted that listed European equities are the only assets common to all funds.

H2. Impact of risk taking on performance using CAMELS approach

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[6] IFSWF International Forum Sovereign Wealth Funds

H2.1 Impact of risk taking on Capital adequacy (left) — **H2.1 Impact of risk taking on Capital adequacy** (right)

2019 (PRE COVID) — DV:TCR, IV:PFEMM

ANOVA — Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
Régression	546,75	1	546,75	7,094	0,009
de Student	10635,44	138	77,068		

Récapitulatif des modèles — Modèle	R	R-deux	R-deux ajusté	Erreur standard de l'estimation
RM	0,221	0,049	0,042	8,78%

Multiple Regression Analysis — Modèle	Coefficients non standardisé B	Erreur standard	Coefficients standardisés Bêta	t	Sig.
(Constante)	13,914	0,924		15,054	0
PFEM	-2,74	1,029	-0,221	-2,664	0,009

2020 (During COVID): *NO significant link between the Impact of Ownership Structure on: Capital adequacy*

H2.2 Impact of risk taking on Earning abilty

2019 (PRE COVID) — DV: NIM, IV:PFEMM

ANOVA — Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
Régression	9008,968	1	9008,968	8,573	0,004
de Student	146074,108	139	1050,893		

Récapitulatif des modèles — Modèle	R	R-deux	R-deux ajusté	Erreur standard de l'estimation
RM	0,241	0,058	0,051	32,42%

Multiple Regression Analysis — Modèle	Coefficients non standardisé B	Erreur standard	Coefficients standardisés Bêta	t	Sig.
(Constante)	44,888	3,394		13,228	0
PFEM	-11,10	3,791	-0,241	-2,928	0,004

2020 (During COVID): *NO significant link between the Impact of Ownership Structure on: Earning ability*

H2.3 Impact of risk taking on Sentives market risk (left and right)

2019 (PRE COVID) — DV: SO, IV:PFEMM

ANOVA — Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
Régression	32260810,38	1	32260810,4	6,866	0,01
de Student	643679372,1	137	4698389,58		

Récapitulatif des modèles — Modèle	R	R-deux	R-deux ajusté	Erreur standard de l'estimation
RM	0,218	0,048	0,041	2167,5769

Multiple Regression Analysis — Modèle	Coefficients non standardisé B	Erreur standard	Coefficients standardisés Bêta	t	Sig.
(Constante)	2098,183	229,478		9,143	0
PFEM	-666,917	254,512	-0,218	-2,62	0,01

2020 (During COVID) — DV: SO, IV:PFEMM

ANOVA — Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
Régression	24121559,89	1	24121559,9	5,231727478	0,0237108
de Student	631656315,9	137	4610630,04		

Récapitulatif des modèles — Modèle	R	R-deux	R-deux ajusté	Erreur standard de l'estimation
RM	0,191789274	0,036783125	0,02975235	2147,237771

Multiple Regression Analysis — Modèle	Coefficients non standardisé B	Erreur standard	Coefficients standardisés Bêta	t	Sig.
(Constante)	2086,905423	227,3243789		9,18029748	5,95069E-16
PFEM	-576,6824677	252,1240016	-0,191789274	-2,28729698	0,02371084

During COVID 19 crisis; results of Anova test, Chi-Square Goodness-of-Fit Test, shows the absence of a significant link between the independent variable "Presence of women on the board of directors" and the performance ratios using the Camels approach. Excluding the sensitivity to market risk (Shares Outstanding).

Comparing between the period PRE &During COVID crisis, we find that the link between the dependent variables: TCR and NIM and the presence of women is no longer significant.

Concerning the risk taking, prior studies have found that women could improve the decision-making process because of their different insights and innovative ideas that boost firm performance (Terjesen et al. 2009). Moreover, women on board increase perceptions of the board's lawfulness and reliability, thus promoting stockholder confidence in the company (Perrault, 2015). However, some research shows that women are generally more risk-averse than men in personal financial investments (Jianakoplos and Bernasek, 1998);Sunden and Surette, 1998; Barber and Odean, 2001; Dwyer et al., 2002; Agnew et al., 2003; Watson and McNaughton, 2007). An insightful overview of reasons explaining female risk aversion has been recently provided by Hurley and Choudhary (2020). Some of the primary reasons are emotional factors that negatively impact female utility and in turn their risk-attitude (Brody,

1993; Croson and Gneezy, 2009) and the greater confidence males have compared to females (Barber and Odean, 2001).

H3. Impact of board committee and other main committes on performance using CAMELS approach

H.3 Impact of board committee and other main committes on Capital adequacy — 2019 (PRE COVID)

Résults
DV: TCR, VC: TCA, VI: PCAI, DI, DINE, DNE, DE, MS, PCAUD

No significant link between the Impact of board committee and other main committes on Capital adequ...

H.3 Impact of board committee and other main committes on Capital adequacy — 2020 (During COVID CRISIS)

Résults
DV: TCR, VC: TCA, VI: PCAI, DI, DINE, DNE, DE, MS, PCAUD

No significant link between the Impact of board committee and other main committes on Capital adequacy

H.3 Impact of board committee and other main committes on Asset Quality (2019)

DV: ROA, VC: TCA, VI: PCAI, DI, DINE, DNE, DE, MS, PCAUD

ANOVA

Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
Régression	17,737	11	1,612	1,947	0,039
de Student	106,002	128	0,828		

Récapitulatif des modèles

Modèle	R	R-deux	R-deux	Erreur standard de l'estimation
RM	0,373	0,143	0,07	0,91%

Multiple Regression Analysis

Modèle	B	Erreur standard	Bêta	t	Sig.
(Constante)	2,423	0,314		7,703	0
DI	-0,132	0,062	-0,253	-2,129	0,035

H.3 Impact of board committee and other main committes on Asset Quality (2020)

DV: ROA& others, VC: TCA, VI: PCAI, DI, DINE, DNE, DE, MS, PCAUD

No significant link between the Impact of board committee and other main committe on Asset Quality

H.3 Impact of board committee and other main committes on Earning ability (2019)

DV: ROE/ROCE BIT/NIM, VC: TCA, VI: PCAI, DI, DINE, DNE, DE, MS, PCAUD

No significant link between the Impact of board committee and other main committe on Earning Ability (exe...)

DVROCE, VC: TCA, VI: PCAI, DI, DINE, DNE, DE, MS, PCAUD

ANOVA

Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
Régression	1717,327	8	214,666	2,536	0,013
de Student	11002,904	130	84,638		

Récapitulatif des modèles

Modèle	R	R-deux	R-deux ajusté	Erreur standard de l'estimation
RM	0,367	0,135	0,082	0,092

Multiple Regression Analysis

Modèle	B	Erreur standard	Bêta	t	Sig.
(Constante)	4,2582	3,1223		1,3638	0,1750
DNE	1,5849	0,6128	0,3265	2,5862	0,0108

H.3 Impact of board committee and other main committes on Earning ability (2020)

DVROE, VC: TCA, VI: PCAI, DI, DINE, DNE, DE, MS, PCAUD

ANOVA

Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
Régression	1717,327	8	214,666	2,536	0,01
de Student	11002,904	130	84,638		

Récapitulatif des modèles

Modèle	R	R-deux	R-deux ajusté	Erreur standard de l'estimation
RM	0,367	0,135	0,082	0,092

Multiple Regression Analysis

Modèle	B	Erreur standard	Bêta	t	Sig.
(Constante)	4,2582	3,1223		1,3638	0,1750
DNE	1,5849	0,6128	0,3265	2,5862	0,0108

DVROCE, VC: TCA, VI: PCAI, DI, DINE, DNE, DE, MS, PCAUD

ANOVA

Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
Régression	3166,27	8,00	395,78	3,20	0,0
de Student	16087,76	130,00	123,75		

Récapitulatif des modèles

Modèle	R	R-deux	R-deux ajusté	Erreur standard de l'estimation
RM	0,44	0,16	0,11	0,1

Multiple Regression Analysis

Modèle	B	Erreur standard	Bêta	t	Sig.
(Constante)	3,1747	3,7755		0,8409	0,4020
DINE	-2,105	0,805	-0,297	-2,616	0,010
MS	-10,663	3,545	-0,248	-3,007	0,003

H.3 Impact of board committee and other main committes on liquidity (2019)

DVCFI, VC: TCA, VI: PCAI, DI, DINE, DNE, DE, MS, PCAUD

ANOVA

Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
Régression	34888961,9	11	3171723,80	2,527	0,006
de Student	159392275,6	127	1255057,28		

Récapitulatif des modèles

Modèle	R	R-deux	R-deux ajusté	Erreur standard de l'estimation
RM	0,424	0,18	0,109	112029,34%

Multiple Regression Analysis

Modèle	B	Erreur standard	Bêta	t	Sig.
(Constante)	-169,439	387,809		-0,437	0,663
PCAI	807,677	260,361	0,253	3,102	0,002

H.3 Impact of board committee and other main committes on liquidity (2020)

DVCOI, VC: TCA, VI: PCAI, DI, DINE, DNE, DE, MS, PCAUD

ANOVA

Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
Régression	45866832,168	8,000	5733354,021	2,094	0,041
de Student	350538733,786	128,000	2738583,858		

Récapitulatif des modèles

Modèle	R	R-deux	R-deux ajusté	Erreur standard de l'estimation
RM	0,340	0,116	0,060	1654,867

Multiple Regression Analysis

Modèle	B	Erreur standard	Bêta	t	Sig.
(Constante)	331,114	567,836		0,583	0,561
PCAI	-1014,317	380,059	-0,227	-2,669	0,009

DV: NCC, VC: TCA, VI: PCAI, DI, DINE, DNE, DE, MS, PCAUD

No significant link between the Impact of board committee and other main committe on NCC

DV: NCC, VC: TCA, VI: PCAI, DI, DINE, DNE, DE, MS, PCAUD

ANOVA

Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
Régression	159 676 427,79	8,00	19 959 553,47	2,00	0,05
de Student	1 289 613 238,65	129,00	9 997 001,85		

Récapitulatif des modèles

Modèle	R	R-deux	R-deux ajusté	Erreur standard de l'estimation
RM	0,33	0,11	0,05	3161,80

Multiple Regression Analysis

Modèle	B	Erreur standard	Bêta	t	Sig.
(Constante)	-270,644	1078,927		-0,251	0,802
DI	581,306	214,866	0,313	2,705	0,008

H.3 Impact of board committee and other main committes on Sentives market risk (2019)

DVSO, VC: TCA, VI: PCAI, DI, DINE, DNE, DE, MS, PCAUD

ANOVA

Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
Régression	119878783,9	11	10898071,26	2,472	0,008
de Student	555595466,5	126	4409487,83		

Récapitulatif des modèles

Modèle	R	R-deux	R-deux ajusté	Erreur standard de l'estimation
RM	0,4	0,2	0,1	2 099,9

Multiple Regression Analysis

Modèle	B	Erreur standard	Bêta	t	Sig.
(Constante)	-444,676	8049,912		-0,055	0,956
TCA	244,367	95,978	0,313	2,546	0,012
PCAI	1071,906	488,869	0,184	2,192	0,03
DI	-297,862	144,234	-0,239	-2,065	0,041
DNE	-343,237	141,227	-0,307	-2,43	0,016
NC	484,962	175,373	0,653	2,765	0,007
PCAUD	-2154,454	919,828	-0,343	-2,342	0,02
PCN	-1474,35	661,388	-0,328	-2,229	0,028

H.3 Impact of board committee and other main committes on Sentives market risk (2020)

DV: SO, VC: TCA, VI: PCAI, DI, DINE, DNE, DE, MS, PCAUD

ANOVA

Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
Régression	82 020 669,67	8,00	10 252 583,71	2,31	0,02
de Student	573 238 607,84	129,00	4 443 710,14		

Récapitulatif des modèles

Modèle	R	R-deux	R-deux ajusté	Erreur standard de l'estimation
RM	0,35	0,13	0,07	2108,01

Multiple Regression Analysis

Modèle	B	Erreur standard	Bêta	t	Sig.
(Constante)	1198,246	719,333		1,666	0,098
TCA	260,976	94,282	0,340	2,768	0,006
PCAI	1198,56976	483,8939017	0,208370867	2,476926772	0,014545967

DV: SP, VC: TCA, VI: PCAI, DI, DINE, DNE, DE, MS, PCAUD

No significant link between the Impact of board committee and other main committe on NCC

DV: SP, VC: TCA, VI: PCAI, DI, DINE, DNE, DE, MS, PCAUD

ANOVA

Modèle	Somme des carrés	ddl	Carré moyen	F	Sig.
Régression	1 819,89	8,00	227,49	2,12	0,04
de Student	13 836,13	129,00	107,26		

Récapitulatif des modèles

Modèle	R	R-deux	R-deux ajusté	Erreur standard de l'estimation
RM	0,34	0,12	0,06	10,36

Multiple Regression Analysis

Modèle	B	Erreur standard	Bêta	t	Sig.
(Constante)	9,032	3,534		2,556	0,012
TCA	-0,997	0,468	-0,265	-2,153	0,033

Using data during COVID Crisis, the results of Anova test, Chi-Square Goodness-of-Fit Test, shows the absence of a significant link between the independent variables related to board committee & other ones selected above and the performance ratios using the Camels approach. Excluding the impact on Earning ability (ROE &ROCE), Liquidity (CFI &NCC) and sensitivity to market risk (Shares Outstanding &SP).

We conclude the following :

- The Presence of the non-executive director impact positively the bank's ROE;
- The Presence of the independent non-executive director and the member of SHARIA positively impacts the bank's ROCE;
- The Presence of independent chaiman has a positive impact on the bank's cash-flow from investing and share outstanding;
- The Presence of independent director positively impacts net change in cash;
- ThePresence of independent chairman & the large size of boeard committee have a positive link with Share Outstandig;
- The larger the size of the board of directors, the more Share outsdanting increase;

According to the Agency Theory, in order to control management opportunistic behaviour and prevent agency problems, a majority of the board must consist of independent directors (Quttainah et al., 2013). It is believed that independent directors don't chase their own interests such as executive compensation and have no requirement to meet pre-set targets (Man & Wong, 2013). Thus, boards with more independent directors strive for better quality in earnings quality through proper monitoring (Machuga & Teitel, 2009; Man & Wong, 2013; Alves, 2014).

For Fama and Jensen (1983), independent directors are widely believed to be the best managers in the director market. Nevertheless, the empirical results concerning the relationship of independent directors and performance are diversified. Independent directors are also critically important to the bank, as they tend to help improve the quality of earnings (Mishra and Nielson, 2000; Cornett et al., 2009). Referring to the work of Griffith (1999), boards dominated by outside directors control bank managers better than those dominated by inside directors.

Concerning the control variable, comparing to 2019's data, there is not a significant effect of the board size (TCA) on banking performance. It joints the research of Simpson and Gleason (1999) who does not perceive a significant effect of the number of directors on financial risk; after having worked on a sample of 300 American banks.However, and comparing to 2020's data, The larger the size of the board of directors, the more Share outsdanting increase.

Baysinger and Zardkoohi (1986) explain that an enlarged board size is a necessity within a highly regulated sector, such as the banking system, since it exerts more effective control over managerial actions; which is also confirmed by the research of subra hmanyam et al (1997).

Pathan (2009) explains that a small board can lead to excessive risk taking, since when the board of directors is small, shareholders can exercise direct control over the decisions of managers through directors.Beltratti and Stulz (2009) find that a small board has a positive influence on the bank's risk since directors are authorized in the interests of shareholders, which automatically leads to an increase in risk taking. This result is also demonstrated by Pathan (2009).

Research by Kogan and Wallach (1964) follows the same logic and argues that the larger the board size, the lower the risk propensity. Indeed, it is much more difficult to convince a large group of people to make controversial decisions that consider the potentially negative consequences than a small group.

5. Conclusion

By comparing the financial data used in 2019 (Pre COVID CRISIS) vs 2020 (During COVID CRISIS, and the assumptions relating to the impact of the ownership structure, composition of the board of directors, the main committees (compensation and audit) and risk taking measured by the presence of women, on bank's performance (MENA REGION) using the CAMEL approach, we conclued the following:

(i) **During the health crisis, the 3 main independent variables have a positive link on financial capacity, liquidity and market capitalization. Unlike pre-COVID data, where we report the impact on almost dependent variables;**

(ii) During the current health crisis, the presence of sovereign wealth funds as an ownership, generated significant operating and investment cash flows. The same goes for sensitivity to market risk, where we note that their presence in shareholders favors the shares in circulation and the market capitalization of banks;

(iii) By comparing between the PRE & DURING COVID crisis period, we find that the link between the dependent variables: TCR and NIM and the presence of women is no longer significant. However, the results demonstrate that during the COVID crisis, there is no significant link between the independent variable "Presence of women on the board of directors" and the performance ratios using the Camels approach. Excluding sensitivity to market risk (outstanding shares).

(iv) The presence of independent members (director and chairman) remains favorable for the bank's strength, liquidity and sensitivity to market risk, as well as for the size of the board's directors.

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