The Determinants of Liquidity of Shares aMultidimensional Approach Evidence of Casablanca Stock Exchange

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ABSTRACT: *The purpose of this article is to investigate whether or not there is a common for all the shares and stocks, which are listed on the Casablanca Stock Exchange (C.S.E) in Morocco; if so, what are the determinants of this common liquidity?*
The research attempts to find evidence for the existence of a systematic liquidity by mining the monthly data of 72 stocks listed on the C.S.E from January 2007 to December 2016 through regressing the individual liquidity of each, according to the average liquidity of the market.
Then, based on the different econometric models, we arrive at robust results, which show the tightness, the depth and the resilience of the stocks that are influenced by the economic situation, the monetary and budgetary policy and by the financial environment.
KEYWORDS: *Beta Market Liquidity, Liquidity Risk, Liquidity Measures, Multi-Variable Linear Regression, Systematic Liquidity.*

I. INTRODUCTION

An asset is deemed liquid, if it is possible to carry out the large volume of transactions at any time without affecting the transaction flow, and if any price deviation of those transactions caused by a non-informative volume shock is promptly corrected (Black, 1971; Kyle, 1985).

Liquidity risk affects the price and the return of shares (Amihud, Mendelson, and Pedersen, 2005).A sharp decline in liquidity is widely cited as a major catalyst for the financial contagion that prevailed during the 2007-2009 financial crisis (Rosch and Kaserer, 2013). According to Geithner (2007), one aspect of maintaining market stability is to ensure sufficient liquidity. Liquidity of shares also influences the financial structure and the cost of capital (Skjeltorp and Odegaard, 2015). Besides, it may raise the risk of corporate default (Brogaard et al. 2017).

Our interest in the study of the liquidity of shares listed on the Casablanca Stock Exchange (C.S.E)has first been drawn by the paucity of studies devoted to the liquidity of emerging stock markets. Furthermore, the stock Exchange of Casablanca has recently marked a decline in terms of market capitalization, yields and liquidity. Indeed, the market capitalization, the Moroccan All Shares Index (MASI) and the liquidity ratio have deteriorated since 2008 (C.S.E Report, 2016). This situation raises the question of whether there is any common liquidity to shares listed on the C.S.E; if so, what would be its major determinants?

Through this paper, we try to contribute to empirical research on the liquidity of two-tiered equities. To our knowledge, our contribution is the first which has studied liquidity risk of C.S.E and then, unlike previous research which has examined the determinants of equity liquidity in general, the originality of our paper is to identify the determinants of each component of the equity liquidity.

The rest of this paper will be organized as follow: First, we try to carry out a review of the literature on the determinants of shares liquidity (2). Second, we present the data and methodology (2) before analyzing the results (3). And finally, a conclusion will be drawn from the results and implications (4).

II. REVIEW OF LITERATURE

Shares common liquidity can be due to events, phenomena or variables that affect all securities in a market at the same time. Since 2002, researchers started investigating the determining factors of liquidity by focusing on national and international stock exchanges.

2.1 Factors affecting liquidity risk at the country level

Chordia et al. (2000) were the first researchers to detect the existence of a common liquidity. In fact, based on the daily data for the 1992 NYSE, they have reduced the average measures of the liquidity of all shares, according to the liquidity of the market, and they have affirmed the existence of a common component of liquidity's variation. These authors concluded that the rates interest, return and market volatility, announcements of economic growth and unemployment, seasonality, vacation and holidays are all factors that affect the variety of the range, depth, volume and number of transactions of all shares listed on the NYSE simultaneously. Since then, researchers have not only looked at the existence of common liquidity, but also focused on the determinants of liquidity by referring to national stock exchanges or globally to different market contexts.

Rösch and Kaserer (2013) used a sample of 272 German listed companies from 2003 to 2009 to examine the dynamics and drivers of global liquidity during periods of financial crisis. They found a positive relationship between liquidity risk and credit risk and they concluded that market liquidity can be a factor in financial contagion, as tight liquidity in times of financial crisis leads to increased commonality, resulting in illiquidity market. Similarly, O. Fernandez et al. (2013), using the Structural Autoregressive Vector (SVAR), have shown that an expansionary monetary policy of the European Central Bank leads to an increase in the overall liquidity of the stock markets in the German, French and Italian markets.

2.2 Factors affecting liquidity risk at the world level

At the global level, Karolyi et al. (2012) refer to a sample of 22,447, which are shared from 40 countries from 1995 to 2009 and by using the Amihud (2002) ratio as a measure of liquidity, which have showed the existence of liquidity factors. According, to these authors, changes in trading activity, globalization, the presence of foreign investors, the quality of information and the sentiment and protection of investors play an important role in explaining common liquidity. .

Similarly, F. Moshirian et al. (2017) use intraday data from 39 stock exchanges around the world for a 15 years period from January 2nd, 1996 to December 31, 2010, which indicate that liquidity is affected by economic and financial conditions, as well as the degree of investor protection and cultural and behavioral factors such as individualism, gender and risk aversion.

III. DATA AND METHODOLOGY

3.1. Data and liquidity measure

The database is made up of 70 stocks listed on the C.S.E from January 2007 to December 2016. During this period, the C.S.E experienced a sharp deterioration.

Based on available statistics, we have used the liquidity measures presented in Table 1 below.

Table 1. Reports measures of different dimensions of liquidity

Dimension of liquidity	Measuringliquidity	Formula	Reference	Proxy
Tightness	Relative QuotedSpread	$Qs_t = \dfrac{P_t^A - P_t^B}{P_t^M}$	Levin and Wright (1999)	Illiquidity
Depth	Rating rate	$Qr_t = \dfrac{\text{Number of trading days per month M}}{\text{Number of trading days per month M}}$	Mann and Ramanlal (1996)	Liquidity
	Zero return	$Zr_t = \dfrac{\text{Number of days of zero return per month M}}{\text{Number of trading days per month M}}$		Illiquidity
Resilience	MarketEfficiency Coefficient	$MEC_t = \dfrac{(12 * V(r_t))}{V(R_t)}$	Hasbrouck and Schwartz (1988)	Liquidity
Depth and Resilience	MeasuredAmihud	$Illiq_{iy} = \dfrac{1}{D_{iy}} \sum_{i=1}^{D_{iy}} \dfrac{|R_{iyd}|}{VolD_{iyd}}$	Amihud (2002)	Illiquidity

With P_t^A : lowest ask price; P_t^B : highest bid price; P_t^M: mid quote price; **Var (R_t)** : Annual variance of returns ; **Var (r_t)** : Monthly variance of returns; **Diy** : Number of trading days during month y ; **R_{iyd}** : Return of the stock i in a day d in a month y; **VolDiyd**: Volume of transactions related to **R_{iyd}**

The relative Quoted Spread is a monthly average of daily relative Quoted Spread for all stocks

3.2. Methodology

We will first try to check the existence of systematic liquidity before identifying its determining factors.

3.2.1. Verification of the existence of common liquidity

To check the existence or not of common factors to all stocks, we refer to the work of Chordia et al. (2000), J. Faron et al. (2015) and F. Moshirian et al. (2017) who use linear regression. As a result, we reduced the liquidity of each stock, according to the liquidity of the market. The liquidity of each security is the market weighed monthly average of Amihud's illiquidity ratio, which is a synthetic measure of liquidity. Market liquidity is a market weighed monthly average of Amihud's illiquidity ratio for all of the stock except the stock under review to eliminate the influence of the stock's liquidity on itself. Measurements of individual liquidity and market liquidity are weighed by market capitalization to neutralize the size effect. We also included control variables such as market returns and volatility.

The regression equation of the individual liquidity according to the liquidity of the market is thus:

$$Illiq_{it} = \alpha_{0i} + \beta_i Illiqm_t + \gamma_i \text{Rm}_t + \theta_{it} \text{Vm}_t + \epsilon_{it}$$

With $Illiq_{it}$ the monthly average of the Amihud ratio of stock i ; $Illiqm_t$ the monthly average of the Amihud ratio of all stocks except stock i ; Rm_t is the monthly market return measured by the monthly average of the daily returns of the MASI index ; Vm_t is the market volatility measured by the monthly standard deviation of the daily returns of the MASI index.

3.2.2. The determining factors of liquidity

In order to identify the impact of the economic situation and the monetary and fiscal policy on the different dimensions of equity liquidity, we have chosen macroeconomic variables such as the unemployment rate (Unempl), the rate of economic growth (Ecogrowth), the interbank interest rate (Interbinterest) and the public domestic debt (Pubdomdebt). In the same way, we selected variables which are related to the financial environment, and more precisely the return on the market, its volatility (Volatility), bank liquidity (Bankliq), market capitalization (Marketcap), the information efficiency of the market (IEM) and investor profile (Invprofile).

Market returns is measured by the return of the MASI Index, while volatility is measured by the standard deviation of returns. Due to lack of statistics on bank liquidity suggested by the Basel III agreements, we have retained the percentage of the liquid assets in the banks' total assets. The efficiency of the market is evaluated by the correlation coefficient between the price return of the day j and j-1.

Monthly data for these variables are collected from the data bank of the Ministry of Finance, the Central Bank (Bank Al Maghrib) and the High Planning Commission (HPC).

Based on previous research, we expect- as it is shown in Table 2 below- that good economic conditions, expansionary monetary policy, and increased market capitalization, returns, and volatility improve market liquidity. Similarly, according to the work of Brunnermeier and Pedersen (2009), we expect bank liquidity to have a positive effect on market liquidity. At the same time, we hypothesize that budget deficit, the inefficiency of the stock market and the preponderance of the institutional investors can draw liquidity from the market.

Table 2. Expected impact of economic conditions, monetary policy and financial environment on each dimension of liquidity.

Dimension of liquidity	Good economic climate	Expansionary monetarypolicy	Budget deficits	Bank liquidity	Return	Volatility	Inefficiency of the market	Institutional investors
Tightness	-	-	+	-	-	-	+	+
Depth	+	+	-	+	+	+	-	-
Resilience	+	+	-	+	+	+	-	-
Depth and Resilience	+	+	-	+	+	+	-	-

IV. Results And Empirical Analysis

4.1 Descriptive statistics

Table 3 shows the descriptive statistics of the different endogenous and exogenous variables. Marketcap and Pubdomdebtare expressed in local currency units "Morrocan Dirham (MAD)".

Table 3. Descriptive statistics results for exogenous and endogenous variables.

Variable	Mean	Median	Max.	Min.	Std, Dev,	Skewnes	Kurtosis	Jarque-Bera	Probability	Obs.
ILLIQ*10^5	0,269	0,219	0,921	0,0223	0,177	1,2E+05	4E+05	4,2E+06	0,00	120
ILLIQm*10^5	0,241	0,202	0,872	0,0211	0,116	8,3E+04	3,E+05	3,99E+06	0,00	120
Qs	1,7%	1,66%	4,91%	1,08%	0,00	2,87	16,69	1064,81	0,00	120
Qr	60,%	58,%	86,%	37%	0,11	0,39	2,2947	5,6453	0,0594	120
Zr	21,%	22,%	31,%	14,%	0,04	0,05	2,33	2,25	0,33	120
MEC	8,83	8,46	16,82	4,67	2,32	1,04	4,34	29,50	0,00	120
Unempl	9,%	9,%	10,%	7,80%	0,01	-0,47	2,48	5,55	0,06	120
Ecogrowth	0,8%	0,5%	10,3%	-11,8%	0,04	-0,42	4,36	12,42	0,00	120
Interbinterest	3,0%	3,17%	3,87%	2,03%	0,00	-0,89	3,27	15,57	0,00	120
Pubmdebt*10^-9	15,97	16,63	55,25	-16,35	18,00	1,54E-04	2,0E-03	4,82E-03	8,9E-05	120
Returns	0,1%	0,21%	3,59%	-4,45%	0,01	-0,90	5,99	58,94	0,00	120
Volatility	0,027	0,0266	0,0396	0,0185	0,00	0,48	2,74	4,70	0,10	120
Bankliq	18,%	18,%	27,3%	14,74%	0,03	1,36	4,06	42,46	0,00	120
Marketcap*10^-12	51,6	51,1	67,9	40,7	6,13	7,5E-11	3,4E-10	1,1E-09	2,5E-13	120
IEM	0,393	0,361	0,64	-0,58	0,26	-0,22	2,57	1,83	0,40	120
Invprofile	83,%	86,%	97,%	60,50%	0,10	-0,81	2,52	13,68	0,00	120

This table shows that the stock exchange of Casablancais characterized by the weakness of liquidity, returns and volatility, inefficiency and the strong presence of institutional investors.

4.2. Verification of the stationarity of the variables

Although, we use temporal variables, we must first check their stationary nature. As a result, we used the Augmented Dicky Fuller test. The results of this test are shown in Table 4

Table 4. Test results of Augmented Dicky-Fuller

	In level		In first difference	
	t-Statistic	Prob.*	t-Statistic	Prob.*
Endogenous variables				
ILLIQ	-1.158927	0.6801	-15.89956	0.0000
ILLIQm	-1.917237	0.6237	-13.5643	0.0001
Qs	-9.811073	0.0000	-12.14516	0.0000
Qr	-1.825413	0.0652	-10.28809	0.0000
Zr	-8.409306	0.0000	-12.38890	0.0000
MEC	-7.152574	0.0000	-11.08263	0.0000
Exogenous variables				
Unempl	-3.553529	0.0385	-15.51970	0.0000
Ecogrowth	-3.985071	0.0117	-10.79214	0.0000
Interbinterest	-3.606874	0.0334	-10.67588	0.0000
Pubdomdebt *10^-9 (MAD)	-0.902846	0.9512	-13.22015	0.0000
Returns	-7.497557	0.0000	-10.50782	0.0000
Volatility	-7.527710	0.0000	-13.80170	0.0000
Bankliq	-2.082506	0.5498	-14.31146	0.0000
Marketcap	-2.197217	0.4864	-10.15078	0.0000
IEM	-12.79587	0.0000	-11.26420	0.0000
Invprofile	-1.794042	0.7015	-9.434111	0.0000
Test critical values :		**1% level**	**-4.039075**	
		5% level	-3.449020	
		10% level	-3.149720	

MacKinnon (1996) one-sided p-values.

It can be seen that only the Qs, Zr, MEC, Returns, Volatility and IFM variables are stationary in level. However, the other variables are stationary in the first difference.

4.3. Empirical results of systematic liquidity

The results of the regression of the liquidity of each share based on average market liquidity are displayed in table 5. Only shares of which beta is significantly non-zero are retained. The beta of stock I is multiplied by its weighting coefficient linked to its capitalization. An average market beta is obtained by dividing the sum of the totals by the sum of the weights of the selected companies 0.9052. The average beta of the market is then 0.5818. As a result, an average of 58.18% of changes in individual liquidity are explained by the liquidity of the market.

Table 5. Empirical results of the decline in equity liquidity as a function of market liquidity.

Company	Beta(1)	Prob*	Weighting (2)	Total (1)*(2)	Company	Beta(1)	Prob*	Weighting (2)	Total (1)*(2)
Afma	0,041	**0.244**	0,0019	*N.R***	Lafarge	0,8813	0.000	0,1173	0,1034
Afric	0,186	0.000	0,0004	0,0001	Lesieur Cristal	1,0112	0.000	0,0105	0,0106
AfriquiaGaz	0,062	0.000	0.0000	*N.R***	Lydec	0,7723	0.000	0,0069	0,0053
Agma	0,998	0.000	0,0012	0,0012	M2m Group	0,1408	0.000	0,0004	0,0001
Alliances	0,284	0.000	0,0046	0,0013	Maghreb	1,0099	0.000	0,0002	0,0002
Aluminium	0,495	0.000	0,0015	0,0007	Maghrebail	0,8207	0.000	0,0015	0,0012
Atlanta	0,948	0.000	0,0036	0,0034	Managem	0,6574	0.000	0,0121	0,0080
Attijariwafa	0,141	0.000	0,1575	0,0222	Maroc Leasing	1,0023	0.000	0,0008	0,0008
Auto Hall	0,981	0.000	0,0109	0,0107	Med Paper	0,8903	0.000	0,0002	0,0002
Auto Nejma	1,01	0.000	0,0009	0,0009	Microdata	0,3368	0.000	0,0008	0,0003
Bcp	1,009	0.000	0,0923	0,0932	Miniere	0,9594	0.000	0,0065	0,0062
Bmce	0,740	0.000	0,0551	0,0408	Nexans	0,4256	0.000	0,0005	0,0002
Bmci	0,921	0.000	0,0132	0,0122	Oulmes	1,0138	0.000	0,0035	0,0035
Brasseries	1,011	0.000	0,0126	0,0127	Promophar	0,2677	0.000	0,0011	0,0003
Cartier Saada	1,016	0.000	0,0002	0,0002	Realisation	0,8058	0.000	0,0001	0,0001
Cdm	1,005	0.000	0,0061	0,0061	Res Dar Saada	1,0139	0.000	0,0105	0,0106
Centrale	1,010	0.000	0,0034	0,0034	Risma	0,9867	0.000	0,0012	0,0012
Cih	1,015	0.000	0,013	0,0132	S.M	0,5077	0.000	0,0006	0,0003
Ciments	0,942	0.000	0,0302	0,0285	Saham e	0,3772	0.000	0,0096	0,0036
Colorado	0,767	0.000	0,0017	0,0013	Salafin	0,9748	0.000	0,004	0,0039
Cosumar	0,957	0.000	0,0347	0,0332	Smi	0,5077	0.000	0,0054	0,0027
Ctm	0,382	0.000	0,0017	0,0007	Snep	0,0947	0.001	0,0023	0,0002
Dari	0,101	0.001	0,002	0,0002	Sodep	0,6687	0.140	0,026	*N.R***
Delattre	0,357	0.000	0,0004	0,0001	Sonasid	0,7811	0.000	0,0029	0,0023
Delta Holding	1,011	0.000	0,0039	0,0039	Sothema	1,0205	0.000	0,0026	0,0027
Label Vie	1,012	0.000	0,0106	0,0107	Stokvis	0,8653	0.000	0,0002	0,0002
Disway	0,583	0.000	0,0023	0,0013	Stroc	0,3278	0.000	0,0001	0,0000
Douja	0,020	0.39	0,037	*N.R***	TaqaMaro	0,0565	0.317	0,014	*N.R***

		2			c				
Ennakl	0,807	0.000	0,0014	0,0011	Taslif	0,9829	0.000	0,0005	0,0005
Eqdom	0,992	0.000	0,0029	0,0029	Timar	1,0007	0.000	0,0001	0,0001
FenieBros sette	0,609	0.000	0,0005	0,0003	Total Maroc	0,6769	0.000	0,0128	0,0087
Hps	0,736	0.000	0,0024	0,0018	Unimer	0,895	0.000	0,0032	0,0029
IbMaroc	0,355	0.000	0,0001	0,0000	Wafa Assurance	0,8688	0.000	0,0311	0,0270
Involys	0,943	0.000	0,0001	0,0001	Zellidja	0,5976	0.000	0,0001	0,0001
IAM	0,056	0.006	0,1978	0,0104	Total			0,9193	0,5267
Jet countract	0,727	0.000	0,0005	0,0004	**Average market beta**				**0,5818**

* Critical Student probability with a margin error of 5%**Company not retained
** N.R: not retained because the critical probability is greater than 5%.

From these results, we deduce that the liquidity of the companies Afma, Douja, Sodep and Total is immune to the liquidity of the market. The Afma, Total and Sodep companies have recently been introduced in 2015 and 2016. However, Douja is characterized by a high level of liquidity, probably explained by factors which are related to the company itself.

4.4. Empirical results of determinants of systematic liquidity

After simulations of several models, we selected only those that are robust, as it is shown in Table 6 below. Indeed, the errors of the residuals of these models are not auto-correlated and homoscedastic.

Table 6. Results of modeling the dimensions of systematic liquidity

Variable	Tightness		Depth				Resilience		Depth and Resilience	
	Qs_t		$D(Qr_t)$		Zr_t		MEC_t		$D(ILLIQ_t)$	
	Coefficient	P.*	Coefficient	P.*	Coefficient	P.*	Coefficient	P.*	Coefficient	P.*
C	0.007089	0.00			-1.033184	0.00	-0.184834	0.25	49.52913	0.0001
$D(Unempl_t)$									1.318156	0.0709
$D(Interbinterest_t)$	-0.010636	0.04	-0.215154	0.00	0.105555	0.00			2.043141	0.0000
$D(Bankliq_t)$			0.187641	0.03					-1.090786	0.0005
$D(Pubdomdebt_t)$			-0.015052	0.04	0.018513	0.00	-3.70E-05	0.00		
$Returns_t$			0.435420	0.01	-0.018402	0.00	-22.94981	0.042	-0.024238	0.0480
$Volatility_t$	0.002001	0.00					-283.8948	0.00	22.85887	0.0330
$D(Marketcap_t)$			0.123384	0.00	-0.161446	0.01	-10.19518	0.01	-1.545852	0.0006
IEM_t	0.084040	0.00	0.000345	0.01	-0.000293	0.01	-1.802477	0.00	0.341698	0.0499
$D(Invprofile_t)$			-0.182969	0.003						
R-squared	0.480415		0.845113		0.555575				0.410367	
Prob(F-statistic)	0.000000		0.0000		0.000000				0.000000	
Breusch-Godfrey Serial Correlation LM Test (p=2)										
F-statistic	2.924650		3.312482		0.676154		2.527584		0.513274	
Prob.	0.0680		0.0595		0.5107		0.0844		0.6000	
Obs*R-squared	2,916734		2.880571		1.433040		5.183440		1.109516	
Prob.Chi-	0,0678		0.0505		0.4884		0.0749		0.5742	

square					
Heteroskedasticity White Test					
F-statistic	1.751231	0.663017	0.124722	2.096333	1.534401
Prob.	0.1436	0.7229	0.9866	0.0710	0.1629
Obs*R-squared	6.888859	5.475638	0.653380	10.10124	10.50096
Prob. Chi-Square	0.1419	0.7057	0.9854	0.0724	0.1619

* Critical Student probability with a margin of error of 5%

The unemployment rate, a sign of economic conditions is eroding the aggregate liquidity of the market. These results show that investors are influenced by the state of the economy.

The expansionary monetary policy of lowering the interest key rate pursued by the central bank since 2009, improves the quotation rate and reduces the days of zero return and the illiquidity ratio of Amihud. This positive effect of expansionary monetary policy on liquidity can be explained in two ways. First, the fall in the interest rate makes bank investments and bonds less attractive; which pushes the institutional investors who dominate the market to move towards equities. Second, the interest rate affects the liquidity of the shares through the channel of bank liquidity. In fact, the fall in the interbank interest rate increases bank liquidity, which in turn improves the liquidity of investors and consequently equities. Moreover, our results confirm this process. In fact, bank liquidity increases the listing rate and decreases Amihud's illiquidity ratio. These results confirm also the main findings of Goyenk et al. (2009) and F. Amador et al (2013). According to them, the finance of liquidity boosts equity liquidity. However, this expansionary monetary policy increases the tightness of the market. Indeed, The more financial liquidity investors have the farther the prices they offer are from the market sheet so as to generate better return on capital; which increases the gap between the best ask price and the best bid price.

The issuing of treasury bills has negatively affected the depth of the market. This shows the eviction effect of fiscal policy on market liquidity. Similarly, information inefficiency negatively affects all equity liquidity indicators.

In addition, the liquidity of the shares reacts differently to the conditions of the Stock Exchange of Casablanca. On one hand, information shortage draws the liquidity from stocks; on the other hand, the increase in market capitalization makes it better.

The increase in monthly returns, such as market capitalization, has positive effects on the depth of the market and its overall liquidity. However, they do not enhance market resilience, because institutional investors dominate the C.S.E. The latter, by generally holding strategic investments, exerts a negative influence on the quotation rate, and consequently makes the market illiquid.

The returns improve the depth and the resilience. Indeed, the more varied returns are, the more investors multiply their purchases or sales operations in order to seize opportunities or limit their losses. However, the returns make the market less resilient. This situation is explained by the existence of the herd effect within the BVC. Thus, paradoxically, the volatility of returns has a perverse effect on market liquidity as it increases the spread and reduces resilience.

As a result, the liquidity of stocks quoted in BVC depends mainly on monetary policy and market conditions such as market capitalization, yield, and volatility as well as market information efficiency.

V. CONCLUSION

The purpose of this paper is to identify the determinants of the liquidity of shares listed on the BVC. However, before doing so, we tried to verify the existence of a common liquidity for quoted shares using the market model.

By regressing the liquidity of each share, based on the average liquidity of the market, we prove that all shares react to the liquidity of the market except Afma, Douja Prom Addoha, Sodep-Marsa Morocco and Taqa Morocco. After eliminating these companies, we obtained an average market beta of 0.58. This result proves the existence of a common liquidity.

Using robust econometric models, we have also shown that common liquidity depends partly on economic conditions and monetary and fiscal policy, and on the other hand on factors related to the financial environment.

Our research then helped to highlight the determinants of the liquidity of shares listed on the BVC. However, our contribution suffers from a set of limitations. First, our article shows that equities react differently to market liquidity without giving any deep justifications. Then, our contribution can be completed by identifying idiosyncratic factors and the determinants of intraday liquidity.

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