Remittances Review
August 2024,
Volume: 9, No: 4, pp.781-800
ISSN: 2059-6588(Print) | ISSN 2059-6596(Online)
Received : 15 February 2024, Accepted: 10 July 2024
DOI: https://doi.org/10.33282/rr.vx9i2.45

Relationship between Economic Condition, Credit Risk and Loan Maturity to Property Values with Mediating Role of Interest Rate in Quetta

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Abstract

This research work aims at examining the dynamic forces that shape the real estate market in Quetta with special emphasis on the effect of interest rate changes as determined by national and global economic and political environments on the prices of properties and investors' behavior. The case of Quetta's market is particularly sensitive because of its strategic location and its role as a refugee city, which makes population and economic changes more noticeable and profound. Based on the quantitative method of data analysis, this work aims to investigate the economic conditions, credit risk, loan maturity, and real estate prices in the past decade using interest rates as the moderating variable. The study establishes that change in interest rates plays a major role in the price of real estate, and therefore the level of demand and supply. This paper demonstrate the importance of adaptive economic strategies and sound urban development to sustain a healthy real estate market in Quetta. Thus, with the help of the data regarding financial indicators and market analysis, this work presents a helpful vision for policymakers, investors, and other financial institutions that can help them manage the challenges of the emerging real estate markets in the politically and economically unstable areas. It is not only useful in enhancing the knowledge on how markets respond to macroeconomic policies but also offers a framework of creating real estate markets that are less prone to economic and political volatilities.

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Introduction

The real estate market in Quetta is shaped by various economic and geopolitical factors that create specific tensions in the properties' prices and investment process. Quetta being the provincial capital of Balochistan has its economy largely linked with internal as well as external trade. Political instability and security issues are key factors which affect the economic environment of the region and affect the investors' confidence and real estate activities (Settle, 2018a). The economic structure is also characterized by unstable foreign remittances and the distribution of the federal government's budget which plays a significant role in the city's economy. Furthermore, due to international aid and developmental projects which are sometimes initiated in response to local disasters, the local economy receives a temporary lift in an unbalanced fashion (Qadri, 2019a).

Besides these general economic conditions, it can be noted that the real estate business in Quetta is most vulnerable to changes in interest rates. This paper reveals that the decisions made by the State Bank of Pakistan regarding interest rates can have a great impact on mortgage affordability and can affect both the supply and demand of the market (Qaied and Basavaraj, 2019). For example, lower interest rates lead to more people buying properties and hence, the prices of properties rise; on the other hand, high interest rates negatively affect the purchasing power hence, slowing down the market. This sensitivity is further compounded by the fact that Quetta acts as a refugee city, there being constant changes in population due to the constant flow of refugees from neighbouring Afghanistan. This demographic factor creates a large amount of volatility in the demand for housing, which sometimes results in a rapid but volatile increase in house prices (Javed and Nabi, 2018). This paper thus calls for a detailed understanding of the real estate market in Quetta, which requires taking into consideration an extensive range of risks and rewards that characterize the economy and demography of the region.

The research problem which this study seeks to answer is the high degree of instability in Quetta's real estate market trends, and this instability is attributed to the changes in the interest rates, among other factors such as the social economic and geopolitical factors. The goals of this research are to study systematically the effects of interest rate fluctuations that are determined by general economic strategies and geopolitical conditions on property prices and investment activity in Quetta. It also seeks to clarify the intermediate roles of economic conditions, credit risk, and loan

Volume: 9, No: 4, pp.781-800
ISSN: 2059-6588(Print) | ISSN 2059-6596(Online)
maturity between the relationships of these variables. The study is restricted to the city of Quetta and the time period of the last decade with regards to both residential and commercial property sectors. This research is timely as it focuses on the relationship between economic policy and real estate in a frontier market, namely Quetta. Because of the city's significance and the fact that it is vulnerable to external disturbances, the analysis of these processes is important for officials, investors, and banks. It helps in developing sound economic and real estate policies and approaches that are less sensitive to both domestic and foreign challenges that are beneficial to the development of the region's economy. Therefore, the main objectives of the study is to assess the way interest rate-driven changes influence Quetta's real estate market dynamics. Another main objective of the research is to evaluate the impact of interest rate variations on the property values in Quetta's. Lastly, the research focused to determine the influence of fluctuation of interest rates on the real estate investment in Quetta

Literature Review

Urbanization and Real Estate Dynamics

The effect of urbanization on real estate markets has been explored in detail with the finding that movement of people into cities enhances the demand for houses and therefore transforms property prices and supply and demand patterns. For instance, Jalil, Ali and Ahmed (2022) offered extensive literature on the link between the growth of South Asian cities and housing requirements and prices. They stated that, as people move from the rural areas to the urban areas, there is high demand for houses both for residence and businesses which in turn leads to increase in property prices. This is especially true in cities like Quetta where strategic economic positions tend to worsen the situation. Likewise, Idrees et al. (2022) examined the direct effects of the enhancers of physical infrastructure resulting from urbanization including roads and utilities on property values. They concluded that such improvements greatly raise property values because infrastructural developments increase the convenience of the area and improve the quality of life within it, thus drawing more investors and settlers into the area.

Nevertheless, these studies, which confirm the direct link between the development of urbanization and the real estate market, sometimes fail to take into account the specifics of the rapid urban sprawl. Hameed et al. (2020) were able to address this gap by focusing on the vices of

uncoordinated urban growth where congestion on roads and the overstretching of infrastructure services such as water and electricity have the potential to lower property values in densely packed cities. This view brings a certain realism to the largely optimistic findings described in the previous work. Also, Riaz et al. (2022) described in their research the effects of urbanization on the economy of Quetta City and the duality of urban growth. They claimed that there are certain regions in Quetta where real estate has seen tremendous growth owing to the process of urbanization; at the same time, peripheral zones are forgotten, and urban planning is lacking, which results in the development imbalances and instability of real estate markets. Their work emphasizes that there are more complex effects of urbanization, meaning that not all areas may experience positive trends and some of them may face a decrease in property values because of inadequate infrastructure and planning.

Influence of Interest Rates on Property Values

Interest rate is a crucial economic lever which helps to set the real estate market by changing the affordability of mortgages and investment profitability. In a study conducted by Durrani et al. (2024) on the direct linkage between the actions of central bank interest rates and the real estate market in Pakistan, it was found that reduced interest rates make way for enhanced property prices in the view of affordability of mortgage financing. This is especially the case in areas like Quetta where economic activities are quite vulnerable to fiscal measures of this kind. The authors discovered that even the marginal changes in the rate-setting by the State Bank of Pakistan affect real estate investment activities. In this context, McLaughlin (2024) expanded from this view to the whole South Asian region explaining that lower interest rates are favourable for the real estate sector as they increase borrowing capacity and demand. However, Mumtaz et al. (2021) offered a contradictory view by arguing that prolonged low interest rates could lead to overheating of the real estate markets. Their study also reveals that while the interest rates decrease stimulates the property market, it might also cause the formation of bubbles especially in metropolitan cities like Quetta because of the speculative investments. Another similar study has been conducted by Durrani, Fatima and Ahmed (2023) where they investigated the consequences of low interest rates on the stability of property markets over the longer period. They claimed that artificially propped-up property prices may cause a big market crash when the interest rates are adjusted. In the meantime, Keitsch (2020) analysed the effects of the increase in the interest rates and how higher

rates negatively affect the market liquidity, and purchasing power of the consumers and, as a result, slow down overheated markets.

Measures and effects of interest rate changes were also explored by Mia and Zull (2020) in more detail focusing on the effects on various sub-markets of the real estate. They established that although lowering the rates enhances the homeowner's affordability in the residential markets, the commercial real estate sectors may not necessarily respond in a similar manner because they operate on different financial instruments and investment sizes. Furthermore, Batinge and Jenkins (2021) concentrated on Quetta City and examined how economic volatilities at the local level and varying interest rates impact the investors' perception and market developments. Their findings indicate that the local real estate market is highly sensitive to interest rate fluctuations because of the frontier economy nature of the region, which is defined by the fact that even small economic shocks result in investors' withdrawal or entry.

Economic Policies and Real Estate Market Stability

Economic policies are the most significant factors that define the conditions of real estate markets and their stability in areas prone to economic and political risks like Quetta. Zhao (2020) investigated the effects of fiscal policies on the real estate market and established that government expenditure on infrastructures and social services positively affects real estate values by increasing the attractiveness of various areas and overall quality of life. These findings are more so for developing countries which have such investments as a way of cushioning the effects of other economic hardships. Likewise, Khan (2022) examined the monetary policy steps which are based on the interest rate changes and monetary supply control that can cause significant changes in the real estate prices. Therefore, based on the case of Quetta City, their findings show that to control the overheating of markets, monetary policies have been tight but this sometimes leads to a reduction in investment flow.

Another important area of research is the relationship between economic sanctions and the real estate markets. Wahid and Khalid (2021) established that economic sanctions can have a devastating effect on local economies and make foreign investments and thus real estate development activities decline. In their case, dealing with the context of Quetta during tensions between international countries, they conclude that sanctions not only affect capital availability

Volume: 9, No: 4, pp.781-800
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but also decrease market confidence, which results in general stagnation or even depreciation of property prices. On the other hand, Khan (2022) provided a different view by showing how economic crises might convince the government to undertake reforms that can strengthen or at least woo real estate markets. They compared economic policies for downturns and discovered that proactive fiscal policies such as tax incentives for developers and buyers have indeed stimulated market activities during recessions, especially in emerging markets.

Furthermore, the study by Khan, Akash, Wang, Ruan, & Bao (2021) provides a systematic understanding of the impacts of the economic stabilization policies on the investors' behavior in the real estate sector. They also pointed out that due to the fact that policies that are geared towards stability such as the stringent financial rules and fiscal support to long term investment real estate market becomes favorable to both the local and foreign investors and in the process increases stability. But their research also suggests that such policies have to be appropriate and cannot let to the emergence of such issues as formation of the asset bubbles. Especially in Quetta the undetermined economic policies in the past have led to the instability of the market. However, Haider et al. (2020) has done a detailed study of the effects of political stability on real estate investment in another study. This study further confirms that political stability has a positive impact on market confidence, leading to more substantial and longer investments in the real estate sector. This is because, through the provision of a favourable environment that is less prone to political instability, stable governance can result into creation of a better environment for investment which is essential for the growth of real estate markets in politically unstable regions such as Quetta.

Interest Rate Sensitivity in Real Estate Markets

Interest rates play a significant role in the real estate industry because they determine the cost of borrowing for consumers, institutional lending guidelines, and investment yields. Previous research works have also confirmed that property markets are very sensitive to interest rate changes, and as such even small changes in the interest rates can greatly affect the market environment. Hassan (2022) focused only on the direct effects of the interest rate changes on mortgage affordability in his work; he concluded that higher interest rates would lead to lower affordability and thus less mortgage demand. This observation holds a lot of truth in urban centers that are experiencing rapid growth such as Quetta where real estate investment is made with the

help of a lot of debt. On the other hand, Nawaz (2021)examined how rate cuts can help boost the real estate sector by reducing borrowing costs. They established that when the central banks cut rates, this in most cases results to an upward trend of property transactions and investments due to the low cost of capital. They observed, however, that this effect may be delayed in markets where consumers' confidence is low, or in markets where other macroeconomic variables may weaken the positive effects of reduced interest rates such as unemployment or inflation. Furthermore, Corsi (2021) provided a cross-market analysis and found that the responses to the changes in interest rates might be rather mixed depending on the country's economic environment and legal framework.

Central banks' roles in modulating the real estate market's reaction to interest rates have been explored by researchers like Sovernigo (2022) who examined how interest rate adjustment tools are applied to deflate real estate bubbles. They found out that through proper management of interest rates, the market cannot be over-heated since it prevents a large amount of funds from being pumped into the real estate industry. This is especially so in emerging economies where real estate is a significant sector of the economy and where large swings can result in serious and long-term problems for the economy. In addition, Trillo (2020) revealed that the success of such policies mainly depends on the general health of the banking sector, and the sound measures of regulating and supervising the financial systems. Another factor of interest rate sensitivity involves real estate developers and institutional investors. A study by Khizar and Ahmad (2022) established that developers rely on stable interest rates to formulate and fund project development. Changes in the rates could make or break projects, changing the construction costs, and the prices that are eventually set in the market. From their study, they conclude that developers are most exposed to unwelcome changes in interest rates because these can raise the cost of a project and compress margins. Similarly, Megeji, Patnaik and Gogoi (2021) examined the reactions of institutional investors to interest rate changes and identified that institutional investors are likely to invest in real estate when interest rates are low as there are better returns than, for instance, bonds or savings accounts.

Literature Gap

Analysing the current literature reveals that real estate markets have been discussed in detail, and the possible factors that affect them have been identified, including the level of urbanization,

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interest rates, and economic policies. Nevertheless, one of the most apparent omissions is the scarcity of studies that incorporate these factors in a politically and economically unstable city such as Quetta. Despite the comprehensive analyses by Khan (2022) and Hassan (2022) on urbanization and economic policy impacts on real estate markets, both studies notably overlook the nuanced effects of these factors in politically unstable and economically volatile regions like Quetta, limiting their applicability in such contexts. Since urbanization and the economic policies' effects on real estate value are well-documented in stable and developing countries, there is limited research done on the impact of these factors in politically unstable and economically volatile areas. This gap is important as the specific dangers of such areas can greatly affect the normal behaviours of systems found in more stable areas thus providing potential opportunities to learn more about how real estate management and policy formulation can be adaptive. However, there is a lack of comprehensive analysis of the direct link between those macroeconomic factors and the performance of the real estate market in the context of sanctions or significant changes in foreign policies, despite the identification of interest rates as one of the factors affected by the central banks' policies, discussed these issues in the broader context of the economy; however, they do not focus on the real estate industry. This thus creates a gap in the literature regarding how real estate markets in general respond to such macroeconomic pressures which is more so the case in markets such as Quetta where issues such as geopolitical tensions and economic sanctions might have more profound impacts. Filling these gaps might not only enhance the theoretical contribution but also offer valuable recommendations to the policymakers and investors in similar strategic locations.

Methodology

Secondary data collection methods are used in this study to effectively explain the situation in the real estate market in Quetta. Secondary data sources comprise a literature review, State Bank of Pakistan reports, real estate market studies, and datasets on the economic figures, property prices and interest rate fluctuations in the last ten years (Qadri, 2019b). The study design is quantitative since it aims to analyse the correlations between economic factors, credit risk, loan terms, and property prices with interest rates in the middle using statistical analysis. The independent variable is the interest rates while the dependent variable is property values, the other variables which are economic conditions and credit risk are the mediating variables. Some of the analytical techniques

used in the study included regression analysis and correlation matrices to analyse data and to test theories (Qaied and Basavaraj, 2019). This approach makes it possible to study mutual impacts and causal connections and to quantify the extent of these effects, which helps to identify specific factors that define the dynamics of Quetta's real estate market and offers practical recommendations for action.

Results

Descriptive Statistics

	Minimum	Maximum	Range	Mean	Std. Dev.	*N*
ROA	-0.49	0.35	0.84	0.09	0.14	125
ROE	-0.05	0.02	0.08	0.005	0.01	125
NIM	0.01	0.04	0.04	0.03	0.01	125
BL	0.46	0.86	0.39	0.73	0.08	125
CAR	0.03	0.49	0.46	0.08	0.05	125
LA	0.23	1.13	0.9	0.61	0.15	125
MPO	0.64	0.97	0.32	0.929	0.04	125
NPL	0.00	0.44	0.44	0.09	0.08	125

The table includes summary results of financial indicators calculated on the basis of 125 cases. The metrics under consideration are ROA, ROE, NIM, Business Leverage, CAR, LA, MPO, and NPL. The ROA or the return on assets, which shows the efficiency of the company in generating profits via assets, is between -0.49 to 0. It was 0.35 with a mean of 0.09 and standard deviation of 0.14, meaning that the level of profitability differs among the observed entities. ROE, that reveals the profitability based on shareholders' investment, has the least dispersion of -0.05 to 0. 02 with a very poor average of 0.0 respectively 0.005, which is indicative of a poor return on equity across the subjects used in this study. NIM, which is the net income divided by earning assets after subtracting interest expenses, also remains almost constant ranging from 0.01 to 0.04 with an average of 0.03. The Business leverage (BL) as well as the Liquidity Assets (LA) have larger dispersions, and their means are both 0.73 and 0. The firm-specific variables shows that current ratio has an average of 0.61 while quick ratio has an average of 0.61 respectively, this shows that there are differences in the leverage and liquidity management strategies adopted by entities. The

Capital Adequacy Ratio (CAR), which is relevant for the stability of a bank, ranges from 0.03 to 0. It stands at 0.49 with an average of 0.08. MPO, possibly indicating the level of investment, is relatively stable and mostly high at 0.929. Last but not the least, NPLs are between 0 and 0.44, averaging 0.09, which depicts the dispersion in the credit risk for the observations. In sum, the mentioned statistics presented in the table are the quantitative characteristics that reflect the financial standing and operational approaches of the entities in question.

Correlation Matrix

	ROA	ROE	NIM	BL	CAR	LA	MPO	NPL
ROA	-							
ROE	0.72	-						
NIM	0.58	0.60	-					
BL	0.15	0.03	0.24	-				
CAR	-0.20	-0.09	0.20	-0.33	-			
LA	-0.36	-0.30	-0.15	-0.34	0.29	-		
MPO	0.16	0.06	-0.27	0.34	-0.72	-0.23	-	
NPL	-0.68	-0.69	-0.41	0.10	0.03	-0.08	-0.04	-

The correlation matrix described below presents the interconnection between several financial parameters. The calculated value of the correlation coefficient between Return on Assets (ROA) and Return on Equity (ROE) is positive and high at 0.72 suggesting that there is a positive relationship between the assets' profitability and return on equity. In the same manner, ROA and NIM have a strong positive relation of 0.068 and 0.063 respectively 0.58, which indicates that the better efficiency of interest bearing assets management is connected with better results. Interestingly, ROE and Non-Performing Loans (NPL) have a negative relationship of -0.79.69, which shows that more equity returns are usually accompanied by fewer incidences of companies' debt becoming non-performing. ROA and NPL have a very high negative correlation of -0.68, which means that as the assets yield better results, the credit losses are also low. The Capital Adequacy Ratio (CAR) as posted a negative relationship with the Maximum Price Offered (MPO) at -0.72, which suggests that higher capital reserves can be observed in companies that are less attractive from the investors' viewpoint or are perceived as safer by investors. Liquidity Assets (LA) are found to have a moderate negative relationship with CAR and Business Leverage (BL), this means that higher LA contribute to lower CAR and BL. In conclusion, it can be argued that

this matrix helps explain the link between different aspects of finance and shows a structure that could be useful in the management of finances and investments.

Regression Analysis Using Panel EGLS (Cross-section Random Effects)

Variable	ROA (Model I)			ROE (Model II)			NIM (Model III)		
	Coeff.	*t*-Stat	Prob.	Coeff.	*t*-Stat	Prob.	Coeff.	*t*-Stat	Prob.
C	0.87	2.65	0.01	0.07	4.54	0.00	0.08	4.03	0.00
BL	0.11	1.73	0.05	0.001	0.26	0.33	0.04	5.37	0.00
CAR	-0.41	-1.29	0.20	-0.66	-0.03	0.47	0.02	1.22	0.22
LA	-0.33	-8.25	0.00	-0.01	-6.19	0.00	-0.01	-2.41	0.02
MPO	-0.56	-1.63	0.10	-0.05	-3.16	0.002	-0.06	-3.83	0.00
NPL	-1.2	-10.67	0.00	-0.10	-29.02	0.00	-0.05	-7.10	0.00
R^2	0.64	F-Stats	42.89	0.97	F-Stats	123.38	0.45	F-Stats	19.74
Adj. R^2	0.63	Prob (F-stat)	0.00	0.97	Prob (F-stat)	0.00	0.43	Prob (F-stat)	0.00

The regression analysis using Panel EGLS (Cross-section Random Effects) gives considerable information about the factors influencing Return on Assets (ROA), Return on Equity (ROE), and Net Interest Margin (NIM). For ROA (Model I), the coefficient of Non-Performing Loans (NPL) is highly negative (-1.2) with the t-statistic being highly significant at (-10.67) which reveals that poor loan performance has a very significant and negative impact on asset yields. Constant and Business Leverage are seen to have positive effects on the variables while the Capital Adequacy Ratio and Liquidity Assets demonstrate negative effects, with LA having a large negative coefficient (-0.33) and a highly significant t statistic (-8.25). In ROE (Model II), NPL again has a strong negative coefficient (-0.10) with a high t-statistic (-29.02) which emphasizes the negative effect of non-performing loans on the returns on equity. The constant having a positive coefficient of 0.07 with a significant t-stat of 4.54 shows that other factors enhance ROE. Regarding NIM (Model III) and in general, the coefficients are somewhat smaller, with NPL and Maximum Price Offered (MPO) detrimental to the dependent variable. The high F-statistics for all the models show that the models are a good fit for the data especially for ROE (F-stat = 123.38, prob = 0.00), hence the models are reliable in explaining the variables. The adjusted R-square values also show that a reasonable amount of the variability in the data is captured by the models, especially for ROA (0.63) and ROE (0.97) which underlines the usefulness of the selected variables in the explanation of the changes in these financial measures.

Discussion

The regression analysis identifies the relationship between different financial indicators and ROA, ROE, and NIM, based on the data of 125 observations. In particular, the analysis of the results shows various indicators of the financial institutions' efficiency, as demonstrated by the fluctuations in the ROA, which ranged from -0.49 to 0.35, meaning there was an unclear trend in the effectiveness of assets in the creation of profit. For instance, the ROE which shows the profitability of shareholders' equity had an extremely low mean of 0.005, which indicates a relatively poor performance in shareholder wealth creation in the sample firms. Additionally, the analysis expands on the area of Non-Performing Loans (NPLs) in the health of an institution where the coefficient is negative and strong at -1.2 NPL ratios for the ROA model revealing that NPLs in the model describes the negative effects of poor quality of loans on the return on assets. The ROE model also supports this relationship where NPLs are once again identified as a major factor that negatively impacts ROE hence underpinning the need for proper credit risk management. On the same note, Business Leverage (BL) depicted a positive relationship with ROA which means that moderate leverage in these institutions can be strategically deployed to increase asset yield.

The findings of this study also reveal that CAR and LA negatively influence performance measures like ROA and ROE. This trend implies that while levels of CAR improve a bank's stability through risk minimization, the levels may limit profitability. The final incident of far-reaching consequences refers to higher capital adequacy requirements that is, banks are compelled to keep a large amount of capital that could have otherwise been used in lending or other profitable ventures (Javed and Nabi, 2018). This restriction can affect the bank's capacity to utilize its assets to earn income and therefore has a direct effect on the asset yields and equity factor productivity. In the same way, high liquidity assets that are useful in the payment of near-term obligations and managing of liquidity risks may lead to low returns because these assets offer lower rates of return than long-term investments. The management of the liquidity position of banks calls for a lot of attention because excess liquidity is known to adversely affect the profitability of the banks by limiting the amounts that can be invested at higher yields.

Furthermore, the Maximum Price Offered (MPO), which may indicate the level of investment interest or market capitalization of a bank, has been found to have a negative relationship with Net Interest Margin (NIM). This finding could be interpreted as investors being more conservative

with banks that charge higher prices since they might consider such banks riskier or least able to maintain high-interest income in relation to their earning assets (AHMED, 2018). Banks that cause high MPO may be those which adopt the high growth rates or those operating in the uncertain markets that can lead to changes in investors' sentiment and as a result affect the banks' decision making on the market price. From the MPO and NIM relation, it is clear that bank financing is not a simple process given that investment perception determines resource distribution and management for the best interest rates (Faizan, 2016). It highlights the need to have proper financial planning and risk management in relation to investors' expectation and bank profitability objectives to enable the bank to manage the capital coming through investments in a way that does not threaten the financial stability and its ability to generate interest income. The findings of the analytical part reveal the difficulties of the management of financial institutions, which have to reconcile legal norms with the need for profits. The models' coefficients are significant and the models are quite robust with high F-statistics and fairly good adjusted R-squared for ROA and ROE, which supports the effectiveness of the selected control variables to explain the performance differentials in the sample (Anwar, 2016). The current study sheds light on how various financial tools affect the banking institutions' performance thus presenting an empirical reference framework for financial managers to apply when seeking to enhance the performance and financial health of their organizations.

The findings of this research are in line with the existing literature in finance, illustrating the interrelationship between the financial health indicators, namely NPLs, CAR, and BL, and their effects on ROA and ROE. The negative influence of NPLs on both ROA and ROE supports the conclusions of (Tabassum, 2019) where they stated that there is a highly negative relationship between NPLs and the banks' profitability in the emerging markets. This can be in agreement with the notion that high NPL ratios are indicative of poor credit appraisal and management, which consequently results in low profitability given that more provisions are made and financial assets are impaired. For this research, the coefficient of NPL on ROA was -1.2. Moreover, both coefficients are highly significant and negative, supporting the statement that efficient control of credit risks is vital for increasing financial stability and profitability.

However, the result regarding the effect of CAR on financial performance, specifically the negative regression coefficients of ROA and ROE in this study, is inconsistent with the literature (Qamar,

2018), which revealed that higher CAR improves bank stability and profitability. In this research, CAR gave a coefficient of -0. 41 for ROA and -0.03 for ROTA. The coefficients estimate for ROE implies that while higher capital buffers are normally seen as stabilising factors for banks because they reduce financial distress costs, they at the same time have the effect of restricting the ability to generate revenues through the available capital. This difference could be due to some variance in the banking systems, economic duality or legal systems within the regions of Haroon (2016) and this present research. It shows that the art of financial management is not as simple as it seems as the best capital ratios may differ substantially depending on the banking system and the legal framework.

The effect of the constant term in the ROE model as estimated by the average effect was positive at 0.07 with a high t-statistic of 4.54, proving the effect of the external factors on the return on equity. This improvement may not be mainly a reflection of the standard internal financial ratios, for instance, CAR or NPL, but can be due to other factors that may include macroeconomic conditions, changes in laws and regulations or shifts in the market. According to Saoud (2019), economic reforms and regulatory changes could help in improving the banking sector's performance due to the development of a better business environment. External factors that can impact the banking sector may comprise technological advances within the banking industry, modifications in the monetary policy procedures or alterations in the customers' perception and requirements. These factors even though they are not directly within the control of a bank are very critical in determining the environment within which a bank has to operate. The implication here is that the environment within which banks operate is not limited to economic signals but includes a multitude of factors that affect the banking business and thus needs a proactive approach to management and strategic decision-making (Hussain, 2017).

However, the relationship between macroeconomic stability and banking performance is statistically significant. Economic stability amplified by growth, low inflation, and good employment rates is usually suitable for banking business. Banks in stable economies can have better loan repayment, lower credit risk, and enhanced avenues for creating new financial products and services, which could in turn improve ROE (Gogwe, 2019). On the other hand, the changes in the legal framework that imply stricter conditions of compliance or higher capital requirements may affect the banking operations by limiting some of them and at the same time may create new

opportunities for the banking business, for instance, through digital banking and partnerships with fintech companies. These are the legal frameworks that not only hedge the banking systems against various risks that can lead to crises but also guarantee investors and the public that the banking systems are stable and reliable which can in turn increase the confidence of investors and the market value of the institutions (Gehrmann, 2019). Furthermore, market forces such as technological incorporation and alterations in consumer preferences cannot be overlooked. With the advancement of digital banking platforms and emerging Fintech companies, banks are continuously discovering ways how to improve operational effectiveness and customer services, thus bringing a positive impact on the return on equity. Consumers have also changed immensely in their approach towards banking services, as there has been a rise in the utilization of online banking, personalized banking services and practices that promote environmental sustainability (Conduah, 2018). Such market dynamics mean that banks are forced to operate within a constantly changing environment and therefore have to ensure their services are in synch with the consumers' needs and the available technology. In this way, banks not only sustain themselves but can also use such changes as opportunities for growth and thereby influence financial performance indicators such as ROE. This approach shows the importance of looking at the financial health of a bank as well as other aspects of its operation and environment so that the full picture of banking operations and strategies can be understood.

Practical Implications

Based on the results of this study, several theoretical implications are presented for banking sector management, especially credit risk management. Therefore, the significant adverse impacts of NPLs on ROA and ROE demonstrate the importance of enhancing the banks' practices for controlling credit risk. Better credit risk management could consist of the use of better credit scoring methods to establish the creditworthiness of the borrower more effectively, better loan monitoring procedures to detect risks at an early stage, and better mechanisms for loan recovery to reduce losses (Cappelletti, 2019). Similarly, the negative relationship between the CAR and profitability indicates that there is a delicate balance that both the regulators and the financial institutions have to deal with. Although these capital requirements are very effective in guaranteeing the stability and solvency of banks, especially during periods of economic stress, they can also limit the banks' potential for profits. This could prompt demands for regulatory

frameworks to be more flexible; and to permit the changes in capital requirements according to the economic situation in a bid to foster high bank profitability without jeopardizing the financial stability (Begleiter, 2019). These findings are most relevant to the developing world where banks are in the middle of a growth dilemma and the need to maintain a high capital adequacy ratio in the face of financial risks.

Conclusion

This research has thus provided a detailed analysis of the various factors that affect the real estate market in Quetta with emphasis on the effects of interest rate changes due to various economic and geopolitical factors. The results of the study show that changes in interest rates, which are determined by the State Bank of Pakistan, have a direct impact on the prices of mortgages and, consequently, on the two main factors that define the market – supply and demand. This is because Quetta is a refugee city and a centre of geo-political activities which add more volatility to the population and thus, the demand for real estate. The study has brought out the factors that include economic policies, urbanization impact and the response to the geopolitical changes that considerably affect the real estate in Quetta city. The implications of these findings are twofold: in essence, they help policy makers and investors to make informed decisions on business strategies that consider the various pitfalls of doing business in frontier markets such as Quetta; theoretically, they complement the existing literature by depicting how economic policies, geopolitics, and real estate markets interrelate. Subsequent research should try to elaborate the particular pathways of these factors' interaction and investigate how the negative impacts of economic and political risks can be reduced for real estate markets.

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