THE INFORMATIVENESS OF FAIR VALUE TO STOCK PRICE BY PERFORMANCE METRICS (AN EMPIRICAL STUDY ON JORDANIAN LISTED BANKS)

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Abstract:

This study is designed to conclude if changes from historical cost model to fair value model have a probable impact on performance results and provide more realistic results for financial reporting. The research issue was addressed using a quantitative technique by examining the impact of fair value measurement for financial instruments on banks stock prices and performance measures. Theoretical frameworks for Ohlson (1995) have been utilized to explore this relationship. The banks included in the sample were 17 Jordanian banks that were listed on the Amman Stock Exchange between 2018 and 2021. Three statistical were applied; simple regression, multiple regression and compare of means. The general findings of the study approved the direct association between fair value alone and value of stock price, also the inclusion of accumulative change in fair value in total assets or owners' equity improved the relationship between ROA and ROE and stock prices. The inclusion of fair value into other metrics such as P-B, DR, and ATO was approved significant only by simple regression and found insignificant in both multiple regression and compare of means. This study finally comes to the conclusion that fair value accounting is a useful measurement method for Jordanian banks during the whole study period.

Keywords: Fair value model, relevance, Jordan, financial instruments, IFRS 9, banking sector.

1. Introduction

The primary goal of financial information is to provide decision-makers with accurate information that is dependable and relevant for making thoughtful decisions. The International Accounting Standard Board (IASB) states that financial statements information should give consumers information that would aid creditors, investors, and other intended users in making informed choices about credit and other expected uses. A successful accounting system should generate high-quality, trustworthy, and useful information for making decisions.

Ball and Brown's 1968 research, which examined the link between accounting information (profits, cash flows, and book valuations of equity) and market values, served as the foundation for several later value-relevant studies (share prices and income). It is debatable whether fair value information provides more appropriate information than historical cost in these developing markets with newly developed financial markets, but fair value accounting (FVA) is considered a suitable measurement that is more relevant than historical cost accounting model in many developing countries like Jordan. Additionally, whether such markets should or can apply the (IFRS) fair value metrics.

Fair value accounting measurements have come under fire for being useless in developing nations for a variety of reasons, such as the absence of efficient markets for many assets and

liabilities, which renders fair value measurements a form of management estimation that is arbitrary, less useful, and unreliable for making decisions. The cost-benefit dilemma is another issue that arises in developing nations when creating fair value information. It is said that it is too expensive for small businesses to use fair value measures while the predicted benefit is unbeneficial. The last issue for these nations arises when income is measured using fair values, which causes the reported unrealized gains or losses resulting from fair value to emerge in the information of financial statements and may lead to higher return volatility (Barth, 2006).

In developing countries, the absence of active markets for many assets such as financial instruments, property, plants and investment property affects level three fair value measurement. This level is applied by managers through estimates and forecasts. It is argued that the manager's forecasts or estimates could be applied using subjective methods that result in discretion or manipulation of accounting numbers. The need to achieve a high level of international comparability and harmony, the (IASB) has done little in the previous period to increase the international harmonization of accounting standards. The work (IASB) resulted in the production of a series of International Financial Reporting Standards (IFRS) which have been fully or partially implemented and adopted in many countries around the world. Interestingly, many developing countries have been in talks with IFRS since 2011, some researchers have said that it is too early to make a judgment on such a conversion, especially for emerging thin markets, as there are many doubts about this convergence. if it will make a difference to everything (Olesen and Cheng, 2011).

This research was conducted to provide further literature on the applicability of IFRS in a developing country Jordan. Previous research has shown that cultural, economic and legal factors differ from environment to environment, and therefore incentives and corporate re-evaluation effects should not be related to a particular environment (Barlev and Haddad, 2007). Prior research also on the relevance of fair value measurements has generally focused only on European countries, Australia, fast east, United States and the United Kingdom. Therefore, a survey in an emerging country particularly in Middle East region would provide more information for the measure of fair value and greater harmonization in the implementation of international financial reporting standards.

Based on the above, this study was designed to expand the accounting literature on fair value measurements in a developing country by examining the expected consequences of implementing fair value revaluations in Jordan as a result of new measurement regulations of that enacted after the year 2011 regarding the use of fair value and the its related disclosure.

2. Theoretical Background

This section of the study aims to discuss and provide an overview of fair value and its appropriateness according to the IASB; moreover, it discusses the importance of fair value among other accounting standard setters such as the United States Financial Accounting Standard Board (FASB). This part also highlights the debates and various arguments related to the implementation of fair value.

2.1 Relevance of Fair Value Model

According to the IASC, value relevance means "the ability of the financial statements to record or summarize information that affects stock values, future dividends, future cash flows, future earnings or future book values" (IASC, 1989). This means that an accounting information number is considered relevant if a relationship to market values is observed and, if that number increases the predictive and predictive power of future market values, an accounting number is considered relevant (Barth, 2000).

According to the IASC, the framework for the preparation and presentation of financial statements (IASC, 1989). Information is considered relevant if that information influences the decisions of different users to predict the past, present and future at the right time. This IASC definition considers the relevance of accounting numbers to decision making as one of the most important qualities of financial information (Francis and Schipper, 1999). Barth et al. (2001) also stated that this definition had provided profound insights for investors and regulators for disclosure of relevant accounting information. Therefore, relevance as a quality is required for application in all accounting environments, not only in advanced markets but also in emerging countries which are even improving their accounting practices.

The relevance of value has been repeatedly linked to the assessment of fair value by scholars through their various arguments. According to the IASB/IFRS definition, fair value is "the amount for which an asset could be exchanged, or a liability settled, between knowledgeable and willing parties in an arm's length transaction". The latest IFRS 13 also defined fair value as "the price that would be received to sell an asset or paid to transfer a liability in an ordinary transaction between market participants at the measurement date". This definition of fair value in IFRS 13 covered both the entry price and the exit price when an asset is sold or a liability is settled (IFRS 13, 2012). In addition, IFRS 13: Fair Value Measurement is categorized into three levels, with level one being used for market prices as the best estimate of fair value. Level two is used when market prices are not available or when other market prices quoted at comparable prices are used due to a lack of sufficient valuation. Level three is applied when levels one and two are not found, so prices are determined by managers' internal estimates (IFRS 13, 2012).

The recognition, measurement and disclosure of fair value are key requirements of several accounting standards, for example: IAS 39 (recently replaced by IFRS 9) for financial instruments, IAS 40 for investment properties, IAS 38 for intangible assets and IFRS 3 for goodwill, IAS 16 on property, plant and equipment (fair value being an alternative model to the cost model), IAS 41 on biological assets, agriculture, tangible and intangible assets impaired under IAS 36, impairment of assets, and IFRS 13 on fair value measurements (Alkhadash and Abdullatif, 2009).

Many scholars have argued that value relevance studies always focus on tests of relevance and reliability of financial information, which are considered the most important qualitative characteristics of accounting information when evaluating different accounting alternatives (Barth et al., 2001). The importance of the quality of relevance in deciding on a particular

accounting alternative derives from the usefulness of the information that will be provided to decision makers. (Barth, 2000).

2.1.1 Usefulness of fair value Model

There is much discussion in the literature by academics pointing out that fair value accounting is more relevant to users' decision-making than historical costs and therefore historical costs should be abandoned or replaced with alternative valuation method based on current values. The researchers also pointed to some gaps in historical costs. An important limitation of historical costs occurs during periods of inflation when prices increase, they asserted that historical costs are unable to reflect price changes (Deegan and Unerman, 2006), another limitation of historical costs is the inability to capture realized appreciation of assets. And its lack of comparability (Riahi-Belkaoui, 2004; Alkhadash and Abdullatif, 2009).

The fair value accounting was presented as an optional measure to replace the historical cost for a series of assets and liabilities. For example, the fair value of some assets is considered more relevant than the historical cost; financial instruments and investment properties, but in some situations the fair value is considered less reliable than the historical cost if current market prices are not available. Therefore, the fair value of some assets is seen as a reflection of the market valuation of the effects of current economic conditions on those assets, and therefore is not affected by the past events of those assets or the company that holds them (Carroll et al., 2003; Alkhadash and Abdullatif, 2009), this in turn allows the financial statements of asset-liability management activities to be adequately reflected when implementing fair value accounting for all financial assets (Gebhardt et al., 2004 ; Siam and Abdullatif, 2011).

However, present values based on exit prices, such as fair values, are supported because they represent present values and real economic substance (Penman, 2007). Another argument for measuring fair value versus historical cost is that fair values improve international accounting harmonization in terms of comparability and equity between different global companies (Barlev and Haddad, 2007).

2.1.2 Critics to fair value Model

Many accountants have argued that while fair value measurement is considered relevant to many accounting decisions, some criticism of this measurement has been voiced. (Evans, 2003) have argued that fair value measurements can distort net income by accounting for unrealized gains and losses on the investment. He also explained that fair value valuations are less reliable compared to traditional methods, information under FVA is also expensive to generate, managers can also manipulate fair values and finally the fair value model could break the model historical cost, which seems to work well. And be more understandable.

The IASB and FASB's emphasis on exit prices for fair value measurements has drawn some criticism. (Penman, 2007) argued that fair values tend to increase the volatility of returns, which could be detrimental to the business due to the high level of systematic risk, he also highlighted some concerns about misuse fair value estimates when market prices are not available. Similarly, Benston (2008) has argued that fair value measurement based on transfer values is

irrelevant when valuing specific assets such as work in progress or inventory and machinery. Special, because transfer prices are not sufficient to provide investors with relevant values for such assets deliver. Ronen (2008) also pointed out the irrelevance of fair value measurement as it poorly reflects the value in use of some assets and therefore fair value is unreliable for estimating cash flows future of these assets. He also accused fair value accounting of being unreliable due to managers' ability to make subjective estimates and the practice of moral hazard by those managers.

2.1.3 Fair Value vs. Financial Crises

It has been argued that under FVA, current market prices obtained from weak asset markets are unreliable and irrelevant to capturing true prices, as these captured prices are biased and do not reflect not true current values (American Banks Association, 2008). It has also been argued that FVA only works well when there are efficient market conditions such as high levels of liquidity and stability. However, in more realistic environments, neither the balance sheet nor the income statement prepared on the basis of fair value information could reflect all the relevant information (Barth and Landsman, 1995).

During the last financial crisis, fair value accounting was blamed as a major cause of bankruptcy and failure of many banks and international financial institutions (Ryan, 2008). Many professionals and scholars around the world defended fair value against this accusation, they saw FV as a messenger carrying assets and liabilities and therefore did not cause this financial crisis. Many of them argued that the role of fair value in financial reporting is like that of the thermometer that it only reflects reality, not creates it, and thus moving away from FVA and back to Traditional historical costs will not solve the problem. FVA supporters also pointed out that the financial crisis would be worse if there were no FVA, due to the role of fair value in providing forewarnings of such problems in the market, helping financial institutions and agencies to take the necessary steps to address. With these problems quickly and efficiently (Laux and Leuz, 2009).

In Jordan, like other markets, our capital market has been affected by the minor effects of the global financial crisis due to its financial and economic ties with other countries in the world. However, the impact of the latest financial crisis on the Jordanian economy has forced regulators to take the necessary financial measures to minimize this impact to the lowest level and avoid the possibility of severe distortions in our Jordanian capital market. Therefore, the Jordanian government had worked hard through the Jordanian central bank to protect the exchange rate of the Jordanian dinar and also to protect various financial investments in the market and the banking sector. In response to this crisis, our government took corrective measures to reduce inflationary pressures by financing Jordan's current account deficit in the balance of payments. In addition, to overcome the crisis problems, the central bank increased local market liquidity by about 1.25 billion in 2009, an increase of 6.8% compared to 2008; Commercial banks also individually increased their local deposits by 8.9% to 19.66 billion. However, the CBJ has ordered commercial banks to increase their local loans by around 9% (119.6 million) to support local Jordanian investments, and the CBJ has also reduced loan facility rates by 30 points (CBJ, 2009; World Bank, 2012).

In order to protect the Jordanian economy, the Government of Jordan through (CBJ) issued a set of instructions and requirements regarding the use of fair value accounting on several occasions during and after the period of global financial crisis. Another directive was also issued on the communication of financial and non-financial information, some of these directives imposed necessary changes in the structure of commercial banks and their activities to make banking activities more convenient, less complicated and more concentrated in order to maintain their role in efficient financial markets and produce reliable reports with high quality financial information aimed at protecting local and foreign investments (CBJ, 2008 & 2009).

As mentioned above, government instructions have been issued as a corrective action to address the problem of volatility in our market, which could lead to weak investments and irrational decisions by some investors. Due to the fact that the Jordanian stock market is considered an emerging market, the government enacted fair value regulation in late 2007 and amended it in 2011; For example, gains arising from the fair value adjustment of trading securities should be disclosed as unrealized gains in the portion of retained earnings. Profits deriving from the revaluation of fair value cannot be distributed to shareholders. Furthermore, the historical cost model must be used when the assets are classified as investment property pursuant to IAS 40, the fair value of these assets is indicated in the explanatory notes. Historic cost should also be applied to property, plant and equipment in accordance with IAS 16 (JSC, 2007; JSC, 2011).

2.2. Overview IFRS 9 Financial Instruments

Overview IFRS 9 responds to criticism that IAS 39 is too complex, inconsistent with how entities manage their businesses and risks, and defers the recognition of credit losses on loans and receivables too late in the credit cycle. In principle, IFRS 9 is effective for annual periods beginning on or after January 1, 2018, although earlier application is permitted. However, at the end of 2016, the IASB agreed to allow companies whose predominant activities are insurance-related activities to postpone implementation until 2021.

IFRS 9 replaces IAS 39 Financial instruments - Recognition and measurement. It aims to respond to criticisms that IAS 39 is too complex, inconsistent with the way entities manage their assets and risks, and delays the recognition of credit losses on loans and receivables too late in the credit cycle. The IASB had always intended to reconsider IAS 39, but the financial crisis has made it a priority. The IASB developed IFRS 9 in three phases, dealing separately with the classification and measurement of financial assets, write-downs and hedges. Other aspects of IAS 39, such as the scope of application, recognition and elimination of financial assets, have been preserved with a few changes. The IASB released updated versions of IFRS 9 as each stage was completed or amended, and as each stage was completed, entities were given the opportunity to apply the updated version. The final standard was issued in July 2014 (IASB, 2009).

The IFRS 9 project was initially part of the joint IASB-FASB convergence initiative. The Boards suspended work on the project, except for the impairment of loans and receivables, as

they could not agree on some key issues and other projects were given priority. In the end, the Boards agreed on common principles for measuring the impairment of loans and receivables, but not on when to recognize them. The new FASB impairment standard applies to SEC filings for years beginning on or after December 15, 2019 (with early application permitted one year earlier) and one year later for other entities.

Summary of the most significant changes Classification and measurement of financial assets after initial recognition.

IFRS 9 replaces IAS 39's patchwork of arbitrary tests, safeguards, options and anti-abuse measures for classification and measurement of financial assets after initial recognition with a single model with fewer exceptions. The new standard is based on the concept that financial assets should be classified and measured at fair value, with changes in fair value recognized in profit or loss when they occur ("FVPL"), unless restrictive classification criteria and assessment are filled with the asset. Satisfies either amortized cost or fair value through other comprehensive income ("FVOCI") (IASB, 2009).

Loans and receivables "Simple" loans and receivables when the entity's business model objective to recover those assets is one of the following:

- Recording of contractual cash flows; Where
- Both the collection of contractual cash flows and the sale of these assets. All other credits and receivables.
- Mandatory preferred shares and "puttable" instruments (eg investments in mutual fund units).
- Stand-alone derivative financial assets (eg purchased options, futures and swaps with a positive fair value at the balance sheet date).

The IFRS 9 model is simpler than IAS 39 but at a price—the added threat of volatility in profit and loss. Whereas the default measurement under IAS 39 for non-trading assets is FVOCI, under IFRS 9 it's FVPL. This can have major consequences for entities holding instruments other than plain vanilla loans or receivables, whose business model for realizing financial assets includes selling them, or which have portfolio investments in equity instruments. Another factor contributing to volatility is the treatment of derivatives embedded in financial assets. Under IAS 39, embedded derivatives not closely related to a non-trading host contract must be measured at FVPL, but the host contract often still can be measured at Amortized Cost. Under IFRS 9, the entire contract will have to be measured at FVPL in all but a few cases (IASB, 2009).

2.3 Banking Sector in Jordan

Banking System in Jordan The banking sector in Jordan has recently had a strong international orientation, as evidenced by an increase in the number of bank branches both locally and internationally. The banking sector in Jordan represents an important and vital part of the Jordanian economy as it contributes significantly to it. Since 1990, the banking sector has grown at an average rate of about 6% per year, with the overall Jordanian economy growing at

an average rate of 2.5% (CBJ, 2010). The Jordanian banking sector is essential to support the Jordanian economy. Almost all Jordanian economic sectors have experienced extremely abnormal growth and improvement over the past century due to the support and assistance of Jordanian banks (CBJ, 2013).

Much of the bank deposits and investments are used by these sectors with the encouragement of the Jordanian government to implement long-term plans or policies to improve the economy. The establishment of the Jordanian banking system dates back to 1927, the British bank was the first bank to open in Jordan and its main business was to work as a tax agent for the government due to the absence of a central bank at that time. After the British Bank, the Arab Bank opened its first branch in Amman, which became its headquarters in 1949 after having its headquarters in Jerusalem in 1930; the British Bank of the Middle East was next to open its branch in Amman in 1949. The second Jordanian national bank to follow from Arab Bank was Jordan National Bank in 1956.

Two other commercial banks were also established in 1960: Cairo Amman Bank and Bank of Jordan. Due to the government's financial needs and the increase in the number of commercial banks, the Jordanian government established the Central Bank of Jordan (CBJ) in 1964 (CBJ, various annual issues). At the end of 2012, the Jordanian banking system consisted of 26 international and local banks. Although the banking system in Jordan has maintained an acceptable number of banks, it has achieved a high level of technological activity, financial instruments and credit services. In addition to the aforementioned 26 banks, there were five other specialized lending institutions, three of which were owned and wholly controlled by the Jordanian government and another two were jointly owned by the public and private sectors (CBJ, 2011).

The number of bank branches has grown enormously over the past 30 years; looking deeply, the number of bank branches in 1986 was 254 branches, while at the end of 2012 it reached 695 branches across Jordan, jeopardizing growth of over 100% in 25 years (CBJ, 2011). As part of its role in organizing and reforming the banking sector through CBJ, the government enacted a new banking law in 2000 to modernize laws, rules and regulations to regulate banking in Jordan (CBJ, 200). The main purpose of the law was to improve and increase the efficiency of the banking sector by improving the regulation and supervision of banks and creating large financial institutions to meet the needs of globalization and intensified competition

The credit facilities offered by these banks include short and long-term loans, including home loans, discounted commercial paper and personal overdrafts. The publication of the new law in 2000 opened the door to a new working environment, expanding banking activities as well as new imported European innovations (CBJ, 2001). In general, the new banking law has enabled banks to provide financial services on a larger scale and transformed the old traditional banking work into a new concept, which is global banking. This new concept expanded services to include: agency services, financial advisors, investment portfolio, management and investment of client funds, leasing, open trade negotiation market such as trading futures, futures and derivatives. In addition, the new law also allowed banks to establish non-bank financial companies such as insurance companies.

Fueled by a general economic boom, our stock market bubble has witnessed the confusion which in turn has confused many businesses, such as real estate. Conversely, Jordanian banks were also able to capitalize on the rapid needs of many lending businesses; large development projects required huge funding, 225 services, large loans connected, while companies and individuals were alike taking out loans or personally taking huge loans to finance further additional investments in the stock market. Credit facilities have been ramped up so quickly. In the twelve-year period from 2000 to 2012, facilities provided to the construction industry increased from JD 744.9 million to JD 3,463.6 million (CBJ, 2011). The cautious instructions and regulations of the Jordanian government issued by the CBJ have allowed the sector to partially overcome the expected negative effects of the global financial crisis and the economic slowdown.

The CBJ has broad powers and autonomy from the central government and oversees the needs of the banking system. The Jordanian government started establishing the Central Bank of Jordan in the late 1950s. Subsequently, the CBJ law was enacted in 1959, and in 1964 preparations were completed to discharge its functions resumption of the work of the Jordanian Monetary Committee, created in 1950 (CBJ, 2005). The main objective and tasks of the CBJ are: to maintain the stability of the currency in Jordan and to maintain the stability of the exchange rate of the Jordanian dinar, together with the promotion and guarantee of increased economic growth along with the economic policy of the state. (CBJ, 2005). The total deposits and lending facilities of licensed banks have also increased, showing the growth of commercial banks in Jordan and the increasing importance of the banking sector for economic development.

2.4 Formal Studies

Much empirical research has been done on the relevance of the FVA value. Previous research has focused primarily on the relevance of fair value measures versus earnings and share price volatility, changes in market values, and the implications of implementing fair value assessments in various capital markets. These searches range from international to regional to local research; in the next section of our study, a discussion and overview of these studies and their findings is presented below.

In his research, Barth (1994) explored how reported estimates of fair value investments in bank stocks and stock gains and losses are reflected in stock prices relative to historical cost measurements. He stated that in the estimates of the fair value of investment securities deemed to have greater explanatory power with respect to the historical cost, he also highlighted that the estimates of the historical cost are based with less significant explanatory power than that of the historical fair value cost. In addition, the fair values of investment securities are based on fewer measurement errors relative to historical costs than the amount reported in the prices of the securities and, ultimately, its results showed that the fair values of gains or losses on securities do not have a significant increase in explanatory power, as expected.

For example, another global studies: (Benston, 2005; Landsman, 2007) stated that while the use of current market values for many assets and liabilities could theoretically be applied, fair

values are generally subject to discretion, these values fair under certain conditions that may have been calculated with substantial discretion by managerial estimates, which could increase the risk of being misled as some of these forecasts may prove to be incorrect. These studies also revealed that fair values are generally relevant to value, but that the level of information could be affected by the amount of measurement error due to subjective estimates made by managers or external appraisers. Similarly, Marchinia and D'Este (2015) when investigated Italian listed entities pointed out that the first time adoption of comprehensive income reporting does significantly affect Italian listed entities performance, notwithstanding the apparent irrelevant spread existing between net income and comprehensive income book values. On the contrary, Imania et al (2021) showed contradicted results for Iranian banks and their findings showed that fair value accounting had no significant effect on stock price drops not only in the short run but also in the long run.

Fair value model sustained to add much support for its effectiveness and relevance for example; Fontes et al, 2018) after measuring the banking assets at fair value for information asymmetry between users of financial statements and investors in share prices showed that the information asymmetry is less for banks that enjoy measuring their banking assets at fair value and that the recognition of credit risk gains and losses has a significant impact when presenting financial statements at their fair value. Likewise, Hsu et al (2019) approved that the recognition of the fair value for investment properties effect stock prices; moreover, they pointed out that companies registered in stock market that recognize and register their investment properties at their fair value face greater risks in their stock prices compared to companies that present their financial statements at historical cost, and that the risks of the collapse of the shares of companies. A related study of by Queku (2020) also indicated that, the adoption of fair value as a criterion for the stock prices for banks caused a difference in profits between financial statements prepared according to "historical cost" and prepared according to fair value. And that the fair value makes the profits and the book value close to the economic reality, and there is a weak correlation in the average difference between the book value of property rights at the historical cost and the fair value.

In Panama a study for Adegboyegun et al (2020) aims to identify the impact of fair value dependence on the reports of companies listed on the Nigerian Stock Exchange. after relaying a questionnaire on fair value measurement; they concluded that there is a strong correlation between the fair value and reporting of Nigerian companies and that the fair value contributed to the assessment of amounts and prediction of corporate profits and the uncertainty of future cash flows in the reports of companies that depend on their reliability. This result was also supported by DeFond et al (2020) whom find a strong association among fair value revaluations and earnings quality. Several studies for fair value impact on performance ratios, decision making were also conducted to explore this issue. The main findings of these studies that fair value have more influence on performance and decision making than traditional historical cost (Anojan et al., 2018; Filip et al., 2021; He et al., 2018). Another study on financial ratios undertaken in Central and Eastern Europe in 2015 revealed that although such ratios are not very sensitive on revaluation model application, but on contrary, they are very sensitive on fair value model application (Strouhal, 2015).

In the Middle East several studies were conducted to examine the appropriateness of the value of fair value accounting have shown that estimates of the fair value of the financial service are more meaningful than historical cost. El-Shamy and Kayed (2005), who investigated the impact of fair value on stock prices for Kuwaiti companies, found that fair values are relevant to value; the additional information content of income is greater than that of book values. Similarly, AlBarrak (2011) examined whether the evolution of the financial information system related to fair value has made it possible to obtain relevant information on the financial statements of companies listed on the Saudi Stock Exchange. His insights into predicting future cash flows using fair values showed that profits in the three cross-sections grouped together offer additional explanatory power beyond that of current cash flows. Khanagha (2011) also came to the same conclusion regarding the relevance of fair value in the UAE market. However, his results showed that, the incremental information content of cash flows' was increased post-IFRS fair value standards adoption.

As for Jordan, Alkhateeb and Alqashi (2004) questioned the impact of the implementation of fair value standards on the Jordanian economy. The descriptive analysis of their study indicated that due to the lack of an efficient market for many assets, Jordanian companies could use discretionary accounting when valuing these assets, which could lead to manipulation. Accounting information and distortions of financial statements provided by companies. Al-Zouby (2005) also examined the usefulness of fair value accounting for Jordanian industrial companies in his study. He focused on critiquing the practice of historical costing. Although he noted that the replacement of historical acquisition costs with new fair values is still sufficiently ambiguous and ambiguous to achieve the qualities of financial reporting. In contrast, Al-Sa'eed (2008) revealed inconsistent results for the fair value disclosure of Jordanian insurance companies. His results showed that fair value disclosures have a positive effect on financial information qualities namely relevant, reliable, comparable and understandable.

However, other Jordanian studies have also shown positive effects when using fair value accounting measures. For example, Alkhadash and Abdullatif (2009) investigated the implications of fair value accounting for Jordanian commercial and investment banks for the period 2002–2006. Research has shown that the fair value of financial instruments generally has a very significant impact on a bank's financial results. They also found that earnings per share (EPS) have positive and very high values when fair value is used to value financial instruments. Similarly, in a nother Jordanian study, Siam and Abdullatif (2011) after examining the utility of fair value accounting for Jordanian bankers and the key barriers to its implementation. Their results indicate that while there is general approval for the use of fair value in financial reporting, there are some concerns about the importance of fair value in terms of predictive value and, more importantly, feedback value.

In the same vein, Al-Yaseen and Alkhadash (2011) showed that fair value returns are more volatile in returns than historical cost returns. They also determined that income does not change when an unrealized gain or loss is recognized on the fair value of a financial instrument or investment property. The results of the assessment of the relative explanatory power of

earnings volatility measures showed that not all fair value earnings volatility measures are good measures of overall risk. In contrast, none of the return volatility measures provided significant additional information about total risk. Another Jordanian study by Alkhadash (2012) also investigated the impact of IFRS 40 fair value accounting on Jordanian companies. According to his research, the market value of shares is usually associated with fair value disclosure. In addition, the recognition of unrealized gains and losses affects net income, net income and book value, both collectively and individually, and has a significant positive relationship with stock price, so fair value disclosure is important.

In short, many studies show that fair value accounting is about value and affects stock prices, earnings, market value and future performance. However, other studies have raised some concerns about the use of fair value accounting, particularly when there are no market conditions or active markets for fair value estimation.

3. Research Design

3.1 Population of the study

Jordanian listed banks in Amman Stock Exchange (ASE) for the years (2018-2021) were selected as a sample that represent Jordanian economic sector; the reason for this selection is that all banks are mandated to report many of financial instruments according to IFRS 9 and IFRS 13 in addition to disclose any revaluations of property, plant and equipment and investment properties according to IAS 16 & IAS 40. The community of the study consists of 17 banks (68 observations over 4 years); banks that have no fair value amounts or missing data were excluded from the sample.

3.2 Data Sources

The primary data of the study gathered from the Jordanian company's guide (2018-2022) and from annual reports of the respective companies. The secondary data are obtained from accounting literature through journal papers, conferences, thesis, accounting text books and any other related sources.

3.3 Method

Wilson (2001) argued that the best valuation model can provide meaningful and reasonable results for fair value estimates when measuring asset values and that any changes in these valuation models will result in significantly different results. The fair values of financial instruments in efficient markets are priced based on quoted or observable prices but in weak markets are valued on estimations, predictions, and judgments rarely observed prices. For this reason, asset prices for investments that are traded in weak markets subject to volatility due to estimations when determining fair values, these estimations can provide a tool for discretion and manipulation to increase or decrease to adapt the financial position or income. Even if we assumed manager's honesty in these estimations of the reported fair values, these predictions varies from one company to another and reduce the required comparability of financial statements between these companies (Wilson, 2001).

The reported of unrealized gains and losses that result from changes in fair values in net income or loss and in owners' equity for current period could provide effects to net income or loss and thus the market value will be affected for these companies. Muyingo (2003) argued the expected effects of changes in fair values, he pointed out that, solidity (equity-assets ratio), is tend to increase as the fair value of the assets increases if fair value model is adopted. Total equity, (shareholder's equity) which is the sum of restricted equity and the retained earnings also is tend to increase also if fair value changes are reported in income. And finally, the volatility of net income and share prices are also expected to increase or decrease if the fair value model is adopted (Alkhadash, 2012; Barth, 2000).

Based on our prior discussion the hypothesis of our study is:

H1: Fair value measurements' have significant influence on market value of stock price.

Almost all of the accounting fair value relevance valuation models are referred to the contribution of Ohlson (1995). His efforts for linking accounting information, such as book values and earnings to market value of equity or share prices has provided theoretical support for the value relevance issue and this model provide more international harmonization for accounting practices (Barlev and Haddad, 2007). This result is expected to be greater if fair value model is applied for long lived assets associated with absence of active markets (Cairns, 2006).

In order to measure fair value direct effect on stock prices we stated the following sub-hypothesis and its model:

H1-1: fair value revaluations have significant direct influence on value of stock price.

Model 1: $P_{it} = a_0 + a_1 FV_{it} + E_{it}$ …………………………………………….……………. (1)

Where

P_{it}: market share price Firm i at the end of year t.

FV_{it}: is the reported accumulative change in fair value for firm i at end of period t.

E_{it}: any other value relevant information of firm i for period t.

To examine the mediating role of fair value on performance metrics the following sub-hypothesis and models are stated:

H1-2: fair value revaluations have significant influence for the association between price to book value and value of stock price.

H1-3: fair value revaluations have significant influence for the association between return on assets and value of stock price.

H1-4: fair value revaluations have significant influence for the association between return on equity and value of stock price.

H1-5: fair value revaluations have significant influence for the association between debt ratio and value of stock price.

H1-6: fair value revaluations have significant influence for the association between assets turn over and value of stock price.

Model 2: Pit = a0 + a1FVit + a2P-Bit + Eit ………………………………………………. (2)

Model 3: Pit = a0 + a1FVit + a2ROAit + Eit ……………………………………….……. (3)

Model 4: Pit = a0 + a1FVit + a2ROEit + Eit ……………………………………….……. (4)

Model 5: Pit = a0 + a1FVit + a2DRit + Eit ……………………………………………. (5)

Model 6: Pit = a0 + a1FVit + a2ATOit + Eit ………………………………………. (6)

Table 1: Variables of the Study

Variable	donation	Type of Var.	definition
Stock price	P	dependent	Stock price after 3 months of year
Fair value	FV	independent	The accumulative change in fair value
Price to book	P-B	independent	Market capitalization/equity
Return on Assets	ROA	independent	Net income/total assets
Return on Equity	ROE	independent	Net income/total equity
Debt Ratio	DR	independent	Total liabilities/ total assets
Assets Turn Over	ATO	independent	Total Revenue/ Total assets

Because such ratios are effected by owners' equity and total assets. Models from 2 to 6 will be regressed twice once when fair value revelations are included in owners' equity or assets and another time when they are excluded from owners' equity and total assets. The explanatory power for each model will be compared before and after the inclusion of FV in the ratio to identify any deference.

For more examination of fair value effect another statistical tests such as multiple regression and compare of means will also be conducted to identify the most effective ratios that impact stock price, as for compare of means it's aimed to find whether there is deference in these ratios caused by fair value.

4. Results of the Study

4.1 Simple Regression Results

Table 2 represents the direct impact of fair value alone on stock price when included and excluded from comprehensive income (OE). As the table results show there is a significant negative impact for fair value revaluations on stock prices of banks. This impact is higher when fair value included in equity but as the result show the significance was decreased after fair value excluded from owners' equity; this decrease was not significant as R square show the explanatory power decreased from 9.4 to 9.2 which insignificant decrease approximately about

2%. Consequently, this means that stock prices do not vary significantly to fair value measurement.

Table 2: Results for the Direct Impact of FV on P

Ind. Var.	R Square	F	Sig.	t	Sig.
FV-included	0.094	5.609	0.021	-2.368	0.021
FV-excluded	0.092	5.487	0.023	-2.342	0.023
change	-2%				

Table 3 screen the results for the mediating role of fair value for the effect of financial performance metrics on stock price. The price to book (P-B) ratio appears with significant positive effect on stock price, the explanatory power of this ratio when fair value included in equity was 54.6% (R Square=0.546) and also was positive significant effect on stock price after FV is excluded from book value (R Square=0.496); the comparison among the two results show that there is significant decrease for the effect of price to book ratio on stock price after fair value is excluded from owners' equity, the decrease about 10%; therefore we conclude that fair value have significant effect for the relationship between price to book value and stock prices. The second ratio, ROA appears in the table with significant positive impact on stock prices pre and post the inclusion of fair value revaluations in total assets; when we compare the explanatory power of this ratio before (R Square=0.138) and after (R Square=0.141) the inclusion of FV in total assets we discover that the explanatory power was decreased by 2%; this decline seems to be insignificant for the impact of fair value on the association between ROA and stock prices. As for the third performance ratio the ROE, the value for return on equity as appears have significant impact on stock prices pre and post the inclusion of fair value revaluations in owners' equity; the comparison for explanatory power of ROE ratio before (R Square=0.077) and after (R Square=0.089) the inclusion of FV in equity we notice that the explanatory power was significantly decreased by 13%; this decrease is greatly significant for the impact of fair value on the association between ROE and stock prices. The debt ratio (DR) surprisingly reported negative significant relationship with stock prices the explanatory power for the influence of debt ratio on stock price was enhanced by 14% this mean that the exclusion for fair value from total assets cased an increase for explanation of debt ratio to the variation of stock price. The ratio of assets turns over (ATO) was the highest ratio that negatively affected by the exclusion for fair value from total assets, the R Square decreased from 0.073 to 0.059 with a percentage of decrease approximately about 20%; hence, we conclude that the impact of assets turnover ratio has more significant positive impact on stock price when fair value is included in total assets. Although of the few mixed results obtained for the influence of fair value in justifying the variation in stock price, the majority of results confirmed the positive impact for fair value on banks stock prices.

Table 3: Simple Regression Results for Independent Variables

Metrics	R Square	F	Sig.	t	Sig.
P-B.FV included	0.546	64.987	0.000	8.061	0.000
P-B.FV excluded	0.496	53.236	0.000	7.296	0.000
change	-10%				
ROA.FV included	0.141	8.880	0.004	2.980	0.004
ROA.FV excluded	0.138	8.666	0.005	2.944	0.005
change	-2%				
ROE.FV included	0.089	5.292	0.025	2.300	0.025
ROE.FV excluded	0.077	4.514	0.038	2.125	0.038
change	-13%				
DR.FV included	0.052	2.946	0.092	-1.716	0.002
DR.FV excluded	0.059	3.179	0.080	-1.783	0.001
Change	+14%				
ATO.FV included	0.073	4.244	0.044	2.060	0.044
ATO.FV excluded	0.059	3.177	0.051	1.644	0.061
Change	-20%				

4.2 Multiple Regression Results

For further investigation for the impact of fair value on the relationship of performance metrics of stock price a multiple regression was equated to identify the best metrics that impact stock price and whether fair value have possible impact on this impact or not.

Table 4 show the results of multiple regression for these metrics when fair value is included in total assets and owners' equity; the model was validated significant with value of F=31.128, the ratios that have positive significant impact on stock price where, price to book value, return on assets and assets turnover; return on equity was negatively significant associated with stock price also debt ratio was negatively insignificantly related to stock price. The best ratio that justifies the variation in stock price was return assets and in the second palace was return on equity. The most confusion observation in multiple regression results was the negative effect for return on equity after it's previously appeared with positive impact on stock price when regressed separately in simple regression.

Table 4: Results of multiple regression for impact of performance metrics on stock price when fair value included

When FV included in assets and owners' equity							
Metrics	**R Square**	**F**	**Sig.**	**Coef.**	**t**	**Sig.**	**VIF**
P_B				3.628	9.277	0.000	1.277
ROA				36.016	10.714	0.000	4.049
ROE	0.709	31.128	0.000	-24.774	-3.604	0.000	4.390
DR				-0.069	-0.076	0.939	1.266
ATO				6.646	1.290	0.002	2.599

*Dependent variable P.

In order to identify the impact for the of exclusion of fair value on the performance metrics we employed the regression a second time without fair value; the results are screened in table 5. It can be observed from all results there is only little change for the effect of these measures on stock price, despite of the slight decline in all of results the overall change conveys no significant impact for fair value on the relationship between performance metrics and stock price. Therefore, we conclude that fair value revaluations have no impact on stock prices

Table 5: Results of multiple regression for impact of performance metrics on stock price when fair value excluded

When FV excluded from assets an owners equity							
Metrics	R Square	F	Sig.	coef	t	Sig.	VIF
P_B				3.419	9.119	0.000	1.298
ROA				33.445	9.725	0.000	4.104
ROE	0.674	28.423	0.000	-25.727	-3.657	0.000	4.443
DR				-0.158	-0.147	0.951	1.577
ATO				6.077	1.113	0.003	2.944
change	3.5%	8%					

*Dependent variable P.

4.3 Compare of Means Results

As previously mentioned in our methodology, in order to figure the fair value effect on performance metrics before and after the insertion of fair value in these metrics a statistical comparison of means test was conducted to detect this effect. Table 6 show the results of means test; Tables 7 & 8 show the results. Compare of results for the effect of fair value on financial performance reveals significant influence for value on the means for return on assets and return on assets only. Also the two related samples (Wilcoxon) approves that the mean of ROA and ROE differ before and after the inclusion of fair value in both total assets and owner's equity.

Table 7: Results for Paired-sample means (T test)

metric	means FV included	means FV excluded	Observations	t Stat	Sig.
P-B	0.843100	0.836257	68	-1.357	0.180
ROA	0.00804	0.00780	68	-2.417	0.019
ROE	0.07746	0.06001	68	-3.234	0.002
DR	0.832065	.832735	68	-1.296	0.201
ATO	0.037963	0.037934	68	-1.141	0.259

Table 8: Two-related-samples test (Wilcoxon Z stat)

metric	Sig.	Decision
P-B	0.838	Retain the null hypothesis
DR	0.514	Retain the null hypothesis
ROA	0.000	Reject the null hypothesis
ROE	0.000	Reject the null hypothesis
ATO	0.775	Retain the null hypothesis

Grounded on prior and after reviewing all results for statistical tests; a summary for these results and hypotheses testing decisions are presented in table 9. It can be seen from the table that the accumulation of fair value found with direct impact on stock price which confirmed by simple regression, but when investigating the role of fair value on the relationship between performance metrics and stock price the results the only metrics that pass the three examination are return on assets and return on equity. Thus we validate the third and fourth sub-hypothesis and the first main hypothesis. Although of mixed results for fair value measurement effect on performance metrics, the majority reviewed results approved the partial impact of fair value on performance measures.

Table 9: Hypothesis testing results and decisions

hypothesis	Sig. simple regression	Sig. multiple regression	Sig. compare of means	Decision
H1	Yes	---	---	Accept
H1-1	Yes	No	No	Reject
H1-2	Yes	No	No	Reject
H1-3	Yes	Yes	Yes	Accept
H1-4	Yes	Yes	Yes	Accept
H1-5	Yes	No	No	Reject
H1-6	Yes	No	No	Reject

Conclusion

This present study was aimed to conclude if changes from historical cost model to fair value model have a probable impact on performance results and provide more realistic results for financial reporting. The research issue was addressed using a quantitative technique by examining the impact of fair value measurement for financial instruments on banks stock prices and performance measures. Theoretical frameworks for Ohlson (1995) have been utilized to

explore this relationship. The banks included in the sample were 17 Jordanian banks that were listed on the Amman Stock Exchange between 2018 and 2021. Three statistical were applied; simple regression, multiple regression and compare of means. The general findings of the study approved the direct association between fair value alone and value of stock price, also the inclusion of accumulative change in fair value in total assets or owners' equity improved the relationship between ROA and ROE and stock prices. The inclusion of fair value into other metrics such as P-B, DR, and ATO was approved significant only by simple regression and found insignificant in both multiple regression and compare of mans. This study finally comes to the conclusion that fair value accounting is a useful measurement method for Jordanian banks during the whole study period.

Limitations of the study

Each study has limitations, our limitations of this study arise from the unavailability of data for some banks, missing data from the Jordanian banks data which resulted in excluding some of banks observations. Another limitation can be attributed to the period where during this period all world enterprises impacted negatively by the crises of Covod-19. This generally could increase the risk to generalize our over this period. The last limitation is related to many value relevance studies, the study was restricted by a small sample size, which is common in emerging markets, and this might decrease the comparability of our results to those of international and some regional studies.

References

1. Adegboyegun, A. E., Ben-Caleb, E., Ademola, A. O., Madugba, J. U., & Eluyela, F. D. (2020). Fair value accounting and corporate reporting in Nigeria: A logistics regression approach. International Journal of Financial Research, 11(2), 301-310.

2. American Bankers Association (2008). Letter to SEC on Fair Value and Other

3. Accounting Standards. Washington: September 23, 2008.

4. Amman Stock Exchange. http://www.ase.com.jo. 2008-2012.companies guide & Annual Reports.

5. Anojan, V. and Nimalathasan, B. (2018). Impact of Historical Cost and Fair Value on Selected Financial Ratios: A Study in Listed Plantation Companies under Colombo Stock Exchange (CSE), IJARIIE, Vol-4 Issue-2 2018, pp.246-254.

6. Ball, R., Brown, P. (1968). An Empirical Evaluation of Accounting Income

7. Numbers. Journal of Accounting Research, Vol. 6, No. 2 (Autumn, 1968), pp. 159-178.

8. AlBarrak, T. (2011). Value Relevance and Predictive Ability of Financial

9. Statement Information: The Case of Saudia Arabia. PhD Thesis, University of Portsmouth.

10. Alkateeb , A .Alqashi, T. (2004). The use of fair value and economic income

11. standards and their effect on economic. Alzaytonah journal for scientific researches, volume 2, no 2, pp. 13-34.

12. Al-khadash, H. (2012). The value relevance of fair value accounting of investment properties in the Jordanian shareholding companies, Int. J. Accounting, Auditing and Performance Evaluation, Vol. 8, No. 4, 2012.

13. Alkhadash, H, Abdullatif, M. (2009). Consequences of fair value accounting for financial instruments in the developing countries: the case of banking sector in Jordan. Jordan journal of business administration, volume 5, no 4,2009.

14. Al-Sa'eed, M.A. (2008). The impact of disclosure – applying the concept of fair value according to changes in the International Financial Reporting Standards on financial reporting of insurance companies in Jordan. Unpublished doctoral thesis, Amman Arab University, Amman, Jordan.

15. Al-Yaseen, B.S. & Al-Khadash, H. (2011). Risk relevance of fair value income measures under IAS 39 and IAS 40. Journal of Accounting in Emerging Economies, 1 (1), 9-32.

16. Al-zouby, y. (2005). 'accounting measurement based on fair value for Jordanian industrial companies:', Unpublished master Thesis, University of Alyarmouk. Irbid, Jordan.

17. Barlev, B. and Haddad, J. (2007). 'Harmonization, comparability, and fair value accounting', Journal of Accounting, Auditing and Finance, Vol. 22, No. 3, pp.493–509.

18. Barth, M.E. (2006). Including Estimates of the Future in Today's Financial

19. Statements, Accounting Horizons, 20 (3): 271- 285.

20. Barth, M.E., Beaver, W.H. and Landsman, W.R. (2001). The Relevance and

21. Value Relevance Literature for Financial Accounting Standard Setting: An Another View, Journal of Accounting and Economics, 31, 77-104.

22. Barth, M., Landsman, W. and Wahlen, J. (1995). "Fair value accounting: effects on banks' earnings volatility, regulatory capital, and value of contractual cash flows", Journal of Banking & Finance, Vol. 19, pp. 577-605.

23. Barth, M.E. (2000). Valuation-based Accounting Research: Implications for

24. financial reporting and opportunities for future research, Accounting and Finance, 40, 7-31.

25. Barth, M.E. (1994). Fair Value Accounting: Evidence from Investment Securities and the Market Valuation of Banks, The Accounting Review, 69 (1): 1-25.

26. Benston, G. J. (2005). Evaluation of the Securities Exchange Act of 1934.

27. Financial Executive, May, 28-42.

28. Benston, G. (2008). 'The shortcomings of fair-value accounting described in

29. SFAS 157', Journal of Accounting and Public Policy, Vol. 27, No. 2, pp.101–114.

30. Cairns, D. (2006). The Use of Fair Value in IFRS, Accounting in Europe, 3 (1), 5-22.

31. Carroll, T., Linsmeier, T.J. and Petroni, K.R. (2003). 'The reliability of fair value versus historical cost information: evidence from closed-end mutual funds', Journal of Accounting, Auditing and Finance, Vol. 18, No. 4, pp.1–23.

32. Central Bank of Jordan. Annual Reports from 2000- 2012. Amman, Jordan.

33. Deegan, C. and Unerman, J. (2006). Financial Accounting Theory, European

34. edition, McGraw-Hill Companies, Inc., London, UK.

35. DeFond, M., Hu, J., Hung, M., & Li, S. (2020). The effect of fair value accounting on the performance evaluation role of earnings. Journal of Accounting and Economics, 70(2-3), 101341.

36. El-Shamy, M. and Kayed. M. (2005). 'The value-relevance of earnings and book value in equity valuation: an international perspective – the case of Kuwait', International Journal of Commerce and Management, Vol. 15, No. 1, pp.68–79.

37. Evans, T. (2003). Accounting Theory: Contemporary Accounting Issues,

38. Thomson Learning, South- Western, South-Western, Cincinnati, USA.

39. Filip, A., Hammami, A., Huang, Z., Jeny, A., Magnan, M., & Moldovan, R. (2021). The Value Relevance of Fair Value Levels: Time Trends under IFRS and US GAAP. Accounting in Europe, 1-22.

40. Fontes, J. C., Panaretou, A., & Peasnell, K. V. (2018). The impact of fair value

41. measurement for bank assets on information asymmetry and the moderating effect of own credit risk gains and losses. The Accounting Review, 93(6), 127-147.

42. Francis, J. and Schipper, K (1999). "Have Financial Statements Lost Their

43. Relevance?", Journal of Accounting Research, Vol. 37, pp. 319-352.

44. Gebhardt, G., Reichardt, R. and Witten brink, C. (2004). 'Accounting for financial instruments in the banking industry: conclusions from a simulation model', European Accounting Review, Vol. 13, No. 2, pp.341–371.

45. He, L. Y., Wright, S., & Evans, E. (2018). Is fair value information relevant to

46. investment decision making: Evidence from the Australian agricultural sector? Australian Journal of Management, 43(4), 555-574.

47. Hsu, A. W. H., & Wu, G. S. H. (2019). The fair value of investment property and stock price crash risk. Asia-Pacific Journal of Accounting & Economics, 26(1-2), 38-63

48. International Accounting Standards Board (IASB). IAS 39: Financial

49. instruments: recognition and measurement.2010.

50. International Accounting Standards Board (IASB). IAS 40: Investment

51. properties.2010.

52. IASB. (2009). International Financial Reporting Standard 9: Financial

53. Instruments. London: International Accounting Standards Board.

54. IFRS. (2012). IFRS 13, Measuring the fair value of unquoted equity

55. instruments within the scope of IFRS 9 Financial Instruments. http://www.IFRS.org.

56. IASC, (1989). Framework for the Preparation and Presentation of Financial

57. Statements. International Accounting Standards Committee, London.

58. Imania, S. Kheradyara, S. HiraInt, K. (2021). The effect of fair value accounting on the drops in stock prices of banks listed on the Tehran Stock Exchange, J.Nonlinear Anal. Appl. Volume 12, Special Issue, Winter and Spring 2021, 2315-2323.

59. Jordan Securities Commission. http://www.jsc.gov.jo.

60. Jordan Securities Commission (2007). 'Instructions on the mandatory policies

61. and standards for re-evaluation of fair value and for disposal of re-evaluation surplus', Amman, Jordan.

62. Jordan Securities Commission (2011). 'Instructions on the mandatory policies

63. and standards for re-evaluation of fair value and for disposal of re-evaluation surplus', Jordan Securities Commission publications, Amman, Jordan.

64. Khanagha, J. (2011). Value relevance of accounting information in the United

65. Arab Emirates. International Journal of Economics and Financial Issues, 1 (2), 33-45.

66. Landsman, W.R. (2007). Is Fair Value Accounting Information Relevant and

67. Reliable? Evidence from Capital Market Research, Accounting and Business

68. Research, Special Issue: International Accounting Policy Forum: 19-30.

69. Laux, C. – Leuz, C. (2009). The Crisis of Fair Value Accounting: Making Sense of the Recent Debate. University of Chicago: Initiative on Global Markets, Working Paper No. 33.

70. Marchinia, P., Carlotta D'Este, C. (2015). Comprehensive income and financial performance ratios: which potential effects on RoE and on firm's performance evaluation? Procedia Economics and Finance 32 (2015) 1724 – 1739.

71. Muyingo, M. (2003). 'Are listed property companies in Sweden ready for fair

72. value accounting?', Unpublished master thesis, Royal Institute of Technology, Stockholm, Sweden.

73. Olesen, K. & Cheng, F. (2011). Convergence of accounting standards does not

74. always lead to convergence of accounting practices: The case of China. Asian

75. Journal of Business and Accounting, 4 (1), 23-58.

76. Ohlson, J.A. (1995). Earnings, Book Values and Dividends in Equity Valuation, Contemporary Accounting Research, 11(2), 661-687.

77. Penman, S. (2007). 'Financial reporting quality: is fair value a plus or a minus?', Accounting and Business Research, Special Issue: International Accounting Policy Forum, Vol. 37, No. 1, pp.33–44.

78. Queku, Y. N. (2020). Value Relevance of Fair Value Measurement and Stock

79. Price Predictability: Incremental Effect and Synergetic Analysis of Listed Banks in Ghana. ADRRI Journal of Arts and Social Sciences, 17(7 (5)), 85-110.

80. Ryan, S. G. (2008). Accounting in and for the Subprime Crisis. The Accounting Review, vol. 83, no 6, pp. 1605–1638.

81. Riahi-Belkaoui, A. (2004). Accounting Theory, Fifth edition, Cengage Learning EMEA, International Thomson Publishing Co., UK.

82. Ronen, J. (2008). To Fair Value or not to Fair Value: A Broader Perspective,

83. ABACUS, 44 (2): 181-208.

84. Siam, W. & Abdullatif, M (2011). Fair Value Accounting Usefulness And

85. Implementation Obstacles: Views from bankers in Jordan, Journal of Accounting and Economics, 22, 79-117.

86. Strouhal, J. (2015). Historical Costs or Fair Value in Accounting: Impact on

87. Selected Financial Ratios, Journal of Economics, Business and Management, Vol. 3, No. 5, pp.560-564.

88. Wilson, A. (2001). 'Fair value and measurement: where the conflicts lie', Balance Sheet, Vol. 9, No. 4, pp.26–33.

89. World Bank, (2012). The Hashemite Kingdom of Jordan Country Assistance

90. Evaluation, Report No.26875-JO.