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The Gap between segment earnings under IFRS 8 and corporate-level income: Evidence from Jordanian Commercial banks

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Abstract

This study aimed at investigating business segment reporting under IFRS 8, and analyzing the gap between business segment results and the consolidated business results. In addition, the study investigated the role of FTP, Cost allocation and Tax allocation in causing this gap.

The study used comprehensive survey methodology analyzing the annual reports of a sample of (12) Jordanian commercial banks.

The study found that IFRS 8 does not indicate how business segment result should be presented and we think this is a defect in the standard. The study also found that 100% of Jordanian banks define their segments along line of business, and 81% of the banks did not allocate capital according to segments. Also two banks allocated costs and tax provision on the segment, while the other did not. Finally all banks did not present transfer pricing in segment results. Our results suggested that aggregated and detailed segment income is incrementally useful to investors and this can be achieved by including FTP, cost allocation and tax provision within segment results.

Key words: IFRS 8, Fund Transfer Pricing (FTP), Cost Allocation, Tax provision, Line of Business (LOB)

JEl Classification: M41

1.1 Introduction and Motivation to this study

On 30 November 2006, the International Accounting Standards Board (IASB) published a new standard for segment reporting. Known as IFRS "Operating Segments", this standard replaced IAS 14 "Segment Reporting" and converged with the American SFAS 131. This standard, effective on 1 January 2009, required an entity to align segment information with internal data used by management.

The objective of IFRS 8 is to deal with the information that entity should disclose in its financial statements to enable users to evaluate the nature and financial effects of the business activities and the economic environment in which the business operates (IFRS 8.1).

Operating segments are determined based on the structure of the organization and how information is reported to management. IFRS 8 does not prescribe the measurement policies for the information to be disclosed. Instead the amounts disclosed are mainly based on the information presented to management. This is generally known as 'the management approach'.

In Jordan, operating segments are considered very important issue as it is a vital part of Jordanian accounting environment which already adopts IFRS. On the other hand, the cost allocation, funds transfer pricing (FTP) and tax provision play critical role in measuring line of business (LOB) profitability, while the international accounting standards ignore these issues because it is considered sensitive information to competitors as well as to other users of financial statements.

Based on the above, this paper investigates whether summed segment earnings for LOB are more persistent and informative if contain cost allocation and FTP, in comparison with the bank's earnings.

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1.2 The Problem of the Study

The problem of the study can be summarized by the lack of research addressing the gap between segment earnings and corporate income, mainly in correlation with cost allocation and FTP. Therefore this study attempts to answer the following questions:

- Are the annual reports of Jordanian banks include segments reporting and comply with IFRS 8?
- Are the annual reports of Jordanian banks ignore the cost allocation as amanagment accounting tool, when reconcile line of business segment earning with bank income?
- Are the annual reports of Jordanian banks ignore the FTP as management accounting tool, when reconcile line of business segment earning with bank income?
- Are the annual reports of Jordanian banks ignore the tax provision, when reconcile line of business segment earning with bank income?

1.3 The Importance of the Study

The importance of this study stems from its purposes and expected results. It shed the light on segment information which is one of the most vital aspects of financial reporting for investors and other users of financial statements. As most listed companies are complex and heterogeneous groups, segment information represent the key for the users of financial statements to understand corporate business models and economic dynamics.

in addition, because the urgent need for more systematic and empirical efforts to investigate about the reasons that cause the gap between segment earnings and corporate income, given that FASB opinion allowed gaps because of the difficulty of allocating some expenses and revenues to segments (FAS 131, paragraph 84). However, we think that banks' numerical figures disclosure about cost allocation or FTP will enhance reporting quality as a performance measurement, and this will not harm competitiveness, because the methodology of implementing those methods will not be disclosed.

1.4 purpose of the study

The purpose of this study is to shed some lights on business segments under IFRS 8, and to examine any gap that might be found between business segment earnings and the total bank profit. In addition, the study will investigate the role of FTP, Cost allocation and Tax allocation in causing this gap.

2 – THEORETICAL BACKGROUND AND LITERATURE REVIEW

This section addresses the scope and objectives of IFRS 8, discusses cost allocation mechanism and FTP as the most new and powerful management accounting tools, and reviews the related literatures.

2.1 IFRS 8: scope and objectives

First, the objective of IFRS 8 is to deal with the information that entity should disclose in its financial statements to enable users to evaluate the nature and financial effects of the business activities and the economic environment in which the business operates (IFRS 8.1).

Operating segments are determined based on the structure of the organization and how information is reported to management (Epstein and Jermakowicz, 2009). IFRS 8 does not prescribe the measurement policies for the information to be disclosed. Instead the amounts disclosed are mainly based on the information presented to management. This is generally known as 'the management approach'.

The IASB explain their decision to adopt the management approach in the Basis for Conclusions to IFRS 8 (IFRS 8.BC9-17). The reasons for that include:

- It gives consistency between what is reported to users and what is reported internally to management, enabling users to see how the entity is structured to reflect the risks and opportunities that management believe are important
- The ability to see segment information 'through the eyes of management' enhances users' ability to predict actions or reactions of management that can significantly affect the entity's prospects for future cash flows
- Segment information is more consistent with information reported elsewhere in the annual report, for example in a management commentary
- The incremental cost of producing segment information is lower because it is based on the information already presented to management.

Second, the scope of IFRS 8 which is generally similar to the predecessor of IAS 14: Segment Reporting, but the wording has been clarified. IAS 14's scope was stated as:

"This Standard should be applied by enterprises whose equity or debt securities are publicly traded and by enterprises that are in the process of issuing equity or debt securities in public securities markets" (IAS 14.3) and this matches with IFRS 8, where segment reporting is required for all entities whose debt or equity instruments are traded in a public market. segment reporting is also required if an entity files or is in the process of filing its financial statements with a securities commission or other regulatory organization for the purpose of issuing any class of instrument in a public market (IFRS 8.2), (PWC,, 2009).

IFRS 8 clarifies what is meant by a 'public' market and makes it clear that this includes 'over-the-counter' markets. As a result, the scope may capture a wider range of markets than some previous interpretations under IAS 14. It also makes clear that a parent entity that does not have publicly traded securities is not within the scope of IFRS 8, even if it has a subsidiary or investment in another entity that has issued listed securities (Nichols and street, 2007).

The IFRS 8 shall apply to:

a) The separate or individual financial statements of an entity:

i.) whose debt or equity instruments are traded in a public market (a domestic or foreign stock exchange or an over-the-counter market, including local and regional markets), or

ii.) that files, or is in the process of filing, its financial statements with a securities commission or other regulatory organization for the purpose of issuing any class of instruments in a public market; and

b) The consolidated financial statements of a group with a parent:

i.) whose debt or equity instruments are traded in a public market (a domestic or foreign stock exchange or an over-the-counter market, including local and regional markets), or

ii.) That files, or is in the process of filing, the consolidated financial statements with a securities commission or other regulatory organization for the purpose of issuing any class of instruments in a public market. "

2.2 Fund Transfer Pricing (FTP):

In banking, financial reporting within the bank is difficult given the need to separate the interest margin between deposit gathering activities and lending activities. This process, known as funds transfer pricing (FTP), has been used since the late 1970's to allow for financial reporting by segments. However, the application of the rules for FTP is not consistent among banks.

Internal Fund Transfer Pricing (FTP) is a well-known practice in the financial sector; it is part of the overall management information, accounting and control system which includes pricing, budgeting profit planning and asset and liability management.

Through fund transfer pricing a bank can analyze more efficiently its net interest margin, because fund transfer pricing allows for quantifying the variances caused by imbalance of funds provided and funds used by the bank. The following types of FTP methodologies are utilized by the financial institutions (Katafian, 2001).

FTP system “measures the value of products furnished by a profit center to other responsibility centers within a company. Internal exchanges that are measured by transfer prices result in (1) revenue for the responsibility center furnishing (i.e. selling) the product and (2) costs for the responsibility center receiving (i.e., buying) the product. (Anthony & Hawkins & Merchant, 2004).

Based on above definition and on the requirements enumerated previously, a list of objectives of an FTP system can be built. A good FTP system should enable the following: (Kawano, 2000):

• Allocating interest margins to assets and liabilities, in order to reflect cost of funding.

• Determining profitability of products and customers in order to boost changes in assets and liabilities structure that lead to increased total profits. Transfer prices set a minimum required level of profitability for products, indicating which of them bring more gains to the bank.

• Evaluating business decisions in organization basing on the contribution of branches and business lines to overall profits. To fulfill this goal, it is necessary that decision makers are held responsible for the results that they are able to control.

• Control of interest rate and liquidity risk by transferring it to the unit responsible for interest rate risk management. Overall market risks can only be effectively managed on the central level, by treasury department.

Each fund transfer pricing system relies on transfer prices (TP). A transfer price is an internal rate of interest used to calculate transfer income or cost due to an internal flow of funds in a financial institution. It is very similar to actual rate of interest paid or received on a bank product, since it concerns the same transaction balance that the actual rate of interest does. As the actual accounting income received on a loan is calculated based on the interest rate, the internal transfer expense is calculated using the transfer price. For each loan, there's a transfer cost, whereas for each deposit, there's a transfer income. The difference between interest rate and a transfer price is the interest margin, which allows calculating the internal interest profit on a transaction. The actual method of assigning TP to a loan or deposit depends on the choice of FTP methodology.

Net interest income is the largest component of a typical commercial bank's income (followed by fees and commissions) and can constitute up to 80 percent of a bank's revenue. On the income statement, this component is decomposed into interest income and interest expense for the entire bank and no further analysis is available (Coffey J. 2001).

Decomposition of net accounting interest result into products shows that all loans and other assets generate interest income, while deposits and other liabilities carry interest expense. Judging product effectiveness using this measure would result in evaluating all loans as profitable and all loans as causing losses. This is simply wrong, since giving a loan to customer requires funds that usually come from deposits placed by another customer. Each deposit has a value to the bank as a source of loan activity, and each loan bears the cost of using funds from that source. FTP puts an internal price on deposits, deducted as cost from loans.

Not only does transfer pricing allow calculating profitability of loans, deposits and other products. It also enables measurement of interest income by branches, business lines and customers. Measuring profits on different levels allows the internal comparison of effectiveness, evaluation and appraisal (Kocakulah & Egler , 2006).

Based on the above, we conclude that all LOB except treasury they deposit his fund which is come from customers in treasury and take TP income on this , and when LOB need a fund to lend the customer, they borrow from treasury and pay TP expense. In addition the net margin between TP income and TP expense represent treasury net margin. So we think that transfer pricing play a critical indictor in evaluating the income statement for each LOB in segmented reporting.

Finally, why we ask bank to disclose TP in segment reporting, if the management or public want to evaluate retail as LOB and if they found the TP income are more than TP expense, then we can conclude that most retail income come from treasury, not from business itself. In another words retail as LOB doesn't efficient since they incurred a profit.

2.3 Cost allocation:

"Enterprises are paid to create wealth, not control costs…. They have to be managed for … wealth creation to do that requires information that enables executives to make informed judgments. " (Druker, 1995). Today's CFO's are responding to an unprecedented need for improved, sustained bank performance to meet growing stakeholder expectations. Sophisticated banks – and their stakeholders – realize that improved performance cannot come from cost-cutting alone.

Comprehensive performance management approaches, systematic management of central costs, are emerging by enlightened banks as the keys to their profitable future and this mean the demand for actionable, accurate and transparent cost and profitability information is growing.

In another hand, cost allocation is a process where indirect costs are assigned to different departments, processes or products. It is a management accounting tool that can help to control costs, maximize profits and motivate employees, regardless of industry. Consequently, it improves decision making and helps companies to meet their ultimate goals.

Cost allocation is at the heart of most cost accounting systems and there are common words should we know it, which are following:

  - **Cost Center** – is a business segment whose manager has control over costs but not over revenue or investment funds, i.e. service departments such as: accounting, general administration, legal or personal.
  - **Profit Center** – a business segment whose manager has control over both cost and revenue, i.e. six flags amusement park in Dallas.
  - **Investment Center** – a business segment whose manager has control over cost, revenue and investment in operating assets.
- **Responsibility Center** – is any part of an organization whose manager has control over cost, revenue, or investment funds. Cost, profit and investment center are all responsibility center.
- Sales and Contribution Margin (CM)
  - CM tells us what happens to profits as volume changes – holding a segment's capacity and fixed costs constant.
  - CM is especially useful in decisions involving temporary uses of capacity such as special orders.
- Traceable and Common Fixed Costs:
  - **Traceable fixed cost** – is a fixed cost that is incurred because of the existence of the segment. If the segment were eliminated, the fixed cost would disappear. i.e., salary of a segment manager.
  - **Common fixed cost** – is a fixed cost that supports the operations of more than one segment but is not traceable in whole or in part to any one segment. If a segment were entirely eliminated, there would be no change in a true common fixed cost. i.e. salary of a firm's CEO.

- A fixed traceable cost of a segment may be a common cost of another segment. I.E., a division manager salary is a common cost of the division's product lines.

Given the fact that banks use cost allocation as part of their profitability analysis, then that cost allocations have incentive effects. They determine how a line of business is charged for use of a common resource, and thus become an instrument for the bank to indirectly control the behavior of its decentralized divisions.

For example, suppose a bank allocates its information technology (IT) costs based on IT headcount, i.e., the number of IT employees assigned to different divisions. On the margin, this gives incentives for the divisions to reduce resource levels that require a high volume of IT support. Knowing that divisions respond in such a manner, the bank can choose an allocation rule to induce divisional resource levels that are optimal for the firm as a whole. We think that cost allocation is important issue in banking sector especially when banks report segmented data in annual financial report and based on the requirement of IFRS 8 which ignore allocated cost as item disclose in segment reporting, why it's important? because more than 60% from total expenses are related to support centers -cost centers- such as information technology, legal services, human resource management, financial control, etc. that serve LOB and this means if we want to measure LOB profitability, we should include allocated cost as a part of segment data to measure LOB income.

3. Previous study

1-Kevin, 2011, "Segment Reporting: Analysis of the Impact on the Banking Industry"

This study summarized the application of FASB Statement 131, reporting disaggregated information about a business enterprise, and the degree to which any consistencies exist in the banking industry. A sample of 8 top-50 banks' were surveyed to assess the interpretation and implementation of segment reporting.

According to the survey conducted for this study, 100% of the banks defined their segments along line of business, although many have internal reports reflecting geography as well. FASB 131 stipulates that organizations who manage along both geography and line of business should report the operating segments based on line of business.

In addition, seven of the eight banks reported having centralized services that perform operations or services for all the segments. In all seven cases, the expenses of these centers are allocated 100% to the segments. The management of these shared services varied from an executive in the corporate segment to an executive in one of the line of businesses. Six of the eight banks allocated corporate overhead expenses back to the segments.

2- Givoly, Hayn and D'Souza, 2010, "Measurement Errors and Information Content of Segment Reporting".

This study aimed to assess the measurement errors inherent in segment reporting, by comparing the correlation of segment results with their industry to the corresponding correlation for single line-of-business firms operating in the same industry.

The study found that the measurement errors in segment information, particularly earnings, are larger than those in the financial information reported by single line-of-business firms. The cross-sectional variation in the measurement errors can be traced to cost/revenue allocations, management intervention in segment reporting, and the operational structure of multi-segment firms. Market tests indicated that the information content of segment information was inversely related to the estimated measurement errors.

3- Botosan, McMahon and Harris, 2009, “Representationally Faithful Disclosures, Organizational Design and Managers' Segment Reporting Decisions”

This study evaluated the success of SFAS No. 131 in inducing firms to disclose more about their organizational design. The study found that firms that changed their segment disaggregation in response to SFAS No. 131 increased the relatedness of operations combined in segments suggesting that their external reporting is more aligned with their internal organizational structures. Also the study found that firms reporting a single segment under SFAS No. 14 but multiple segments under SFAS No. 131 tended to hide certain operations under SFAS No. 14.

Finally, the study provided evidence that firms that did not change their segment definitions in response to SFAS No. 131, combine more dissimilar operations that likely deviate from their internal organizational structures to a greater extent than firms that changed their segment definitions in response to SFAS No. 131.

4-Nagarajana, 1996, "Corporate responses to segment disclosure requirements"

This study showed that increasing disclosure requirements may induce firms to reduce their value-relevant disclosures. In the absence of segment reporting requirements, an incumbent firm may voluntarily disclose value-relevant information because it can use other, value-irrelevant, information to jam proprietary disclosures. However, when required to disclose segment data, the incumbent may aggregate proprietary information with other value-relevant information to deter entry by a rival.

The study indicated that the firms that didn’t disclose value-relevant information would have revealed voluntarily in the absence of segment disclosure requirements. In such situations, requiring more disaggregate disclosures can actually decrease price efficiency.

4 – RESEARCH DESIGN

4.1 Sample selection

The study population included all Jordanian commercial banks that are listed on Amman Stock Exchange at the end of 2014. The sample of the study covered all Jordanian commercial banks that encompasses (13) Jordanian commercial banks.

4.2 Data analyses and results:

In this section we will present our research questions and analysis the annual reports for the study sample, especially, evaluating the segment section within the annual reports of Jordanian banks in terms of the the following questions :

- Are the annual reports of Jordanian banks include segments reporting and comply with IFRS 8?

- Are the annual reports of Jordanian banks ignore the cost allocation as management accounting tool, when reconcile line of business segment earning with bank income?

- Are the annual reports of Jordanian banks ignore the FTP as management accounting tool, when reconcile line of business segment earning with bank income?
- Are the annual reports of Jordanian banks ignore the tax provision, when reconcile line of business segment earning with bank income?

For first question and According to the survey conducted for this research, 100% of Jordanian banks defined their segments along line of business, although many have internal reports reflecting geographical distribution as well. IFRS 8 stipulates that organizations who manage along both geography and line of business should report the operating segments based on line of business.

Not every part of banks is part of an operating segment that engages in business activities which earn revenue. All Jordanian banks had a corporate or other segment to capture these and other activities that may not be an operating segment. These "other" activities require separate reconciliations to the audited financial statements.

Likewise, the allocation of capital to each segment for the purpose of calculating a risk adjusted return applied differently across banks. Although it is not required by IFRS 8, it is the best indicator for risk adjusted profitability analysis. Some banks didn’t allocate capital other than for regulatory purposes to evaluate capital adequacy. In fact, 81% of the surveyed banks did not allocated capital according to segment.

Cost accounting methodologies also differ among the surveyed banks. Two of the twelve banks allocated costs on the segment, while the other bans did not allocate costs and used the total costs for reconciliation purposes.

Interestingly, none of the surveyed banks had a segmented fund transfer pricing figures, so we can’t analyze efficiently the net interest margin for each business line. Finally, segmented tax figures also varied among the surveyed banks; three banks allocated tax over the segments, while the other banks did not allocate taxes and used the total taxes for reconciliation purposes.

In summary, While IFRS 8 has gone a long way to improve segment reporting for banks and other industries; it has not entirely standardized the reporting. As such, segment reporting may give insights into the operating performance between segments, but has too many variables to compare similar segments within the banks or industry. In another words, the number of segments, the names of the segments, and the segment definitions differ among banks that are similarly organized and in the similar businesses.

The obvious trend in segment reporting for banks is based on identifying the retail segment separated from commercial segment. Likewise, the approaches of developing and reporting banks' segments differ among organizations as each applies a customized method in managerial accounting, FTP and capital allocations, cost allocation and tax allocation.

5-Recommendations:

First, the central bank of Jordan should enforce banks to develop segment reporting, and imposing banks to disclose more details about LOB profit.

Second, Jordanian banks should unifying and harmonizing the segment reports by following an orderly discloser in presenting the information, especially those related to FTP, allocated cost and tax figures, and this also can be impose by the central bank of Jordan.

Third, a higher level of disclosure allows evaluation based on a more detailed index, especially quantitative disclosures related to segment reporting could provide a fruitful basis for future research.

Finally, we proposed the following new hypothetical model, that can guide the Jordanian banks to present LOB segment reports, which will enhance the understanding of the banks' performance, improving the Banks's assessment of future net cash flows and their decision making process.

Item	**LOB 1**	**LOB 2**	**LOB 3**	**……**	**Total LOB / reconcile with bank result**
NIM – Deposits (which equal TP income minus interest paid to deposits) **Less:** **NIM – Loans (**which equal TP expense minus interest received from loans) Provision for impairment Other Provisions **Add:** Commission's **Result of operations of segments** **Less:** **-**Direct expenses -Allocated expenses from cost or support centers -Provisions **Profit for the year before income tax** -Income tax provision **Profit for the Year/ Business line income**					

<u>Note: the net effect of TP income & TP expenses should equal zero when netting applied for total bank result.</u>

Based on the above format, we mentioned the following points:

1- We can evaluate the overall LOB performance in a way that reconciles 100% with consolidated bank result.

2- The effects of FTP help in evaluating the operational profit and will give an indicator about LOB efficiency.

3- The effect of cost allocated to LOB can provide LOB usage of available resources and this will help in exploring the cost benefit analysis for LOB.

4- Mathematically, Ignoring FTP and put all cost allocated in other segment, we can’t ignore provisions and taxes for each LOB because it represents figures already should reconcile with bank results.

REFERENCE LIST

- Anthony R. & Hawkins D. & Merchant K. 2004, Accounting Text & cases, McGraw-Hill, New York, p.494.)
- Botosan, Christine A., McMahon, Susan and Stanford, Mary Harris, Representationally Faithful Disclosures, Organizational Design and Managers' Segment Reporting Decisions (January 1, 2009). AAA 2009 Financial Accounting and Reporting Section (FARS) Paper. Available at SSRN: http://ssrn.com/abstract=1272091
- Coffey J. 2001, 'What is fund transfer pricing', ABA Bank Marketing, vol. 33 issue 9.
- Dan Givoly, Carla Hayn and Julia D'Souza,2010, "Measurement Errors and Information Content of Segment Reporting " , Review of Accounting Studies, Volume 4, Number 1, pp15-43.
- Drucker, Peter F., The Information Executives Truly Need, Harvard Business Review, January-February 1995
- Epstein, B. J., Jermakowicz, E. K. (2009). IFRS converges to U.S. GAAP on segment reporting. Journal of accountancy (April): pp.50.
- Katafian, Robert E, 2001, Keys to community bank success: Utilizing management information to make informed decisions-Funds transfer pricing (FTP), Journal of Bank Cost & Management Accounting, 2001.
- Kawano R. 2000, 'Funds Transfer Pricing', Journal of Performance Management
- Kocakülâh M. & Egler M. 2006, 'Funds Transfer Pricing: How to Measure Branch Profitability', Journal of Performance Management.
- Link, Kevin W "Segment Reporting: Analysis of the Impact on the Banking Industry". Journal of Bank Cost & Management Accounting, The. FindArticles.com. 18 Nov, 2011.
- Nandu J. Nagarajana, Sri S. Sridhar , 1996, Corporate responses to segment disclosure requirements, Journal of Accounting and Economics
- Nichols, N. B., Street, D. L. (2007). The relationship between competition and business segment reporting decisions under the management approach of IAS 14 Revised. Journal of International Accounting, Auditing and Taxation 16 (1): pp.51-68.
- Pricewaterhouse Coopers,2009, A practical guide to IFRS 8 for investment funds, available at : http://www.pwc.com/ifrs