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# Impairment Analysis of Non-current Assets under DCF Based-test in the Jordanian Industrial Shareholding Companies

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## Author's contribution

*This work was carried out by the author MEN himself. Author MEN designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Author MEN read and approved the final manuscript.*

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## ABSTRACT

**Aims:** To examine the significance differences between discounted operating cash flow associated with non-current assets and the impairment loss for 2005 compared to 2006, 2006 compared to 2007, 2007 compared to 2008. Moreover, estimating value in use through future cash flows attributable to the asset under DCF Based-test. To determine impairment trends by showing ratios of companies that have increasing trends, decreasing or fluctuated trends for the years 2005-2008.

**Study Design:** Data were collected for the period 2005 to 2008 from Annual reports issued by Amman Stock Exchange (ASE) of the selected industrial public shareholding companies. For this study, 30 industrial companies impaired their non-current assets were selected out of 73 working Jordanian industrial companies during the study period; Descriptive statistic has been used in this study, in addition to Wilcoxon Signed Ranks Test.

**Results:** Based on the financial data in the companies' financial reports, about (58.9%), or 30 companies, apply asset impairment accounting. For companies implement IAS (36), impairment loss should be recognized, measured, and disclosed separated from depreciation. Impairment loss can be affected by discount rate, and future cash flows.

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## 1. INTRODUCTION

The primary objective of financial accounting for the impairment of assets according to International Accounting Standard 36 (IAS 36) is to ensure that assets are not stated in the statement of financial position at more than they are worth to the business (recoverable amount), where asset carrying amounts are not recoverable through the returns generated from them the underlying assets are impaired and should have their carrying amounts reduced accordingly. IAS 36 supports users by seeking to ensure that non-current and other asset carrying amounts will be, at a minimum, recovered from future operations. This avoids the overstatement of profits and capital employed which would occur if assets were carried at above their recoverable amounts. Properly recognized impairment losses are likely to reduce the return on capital employed provides more realistic and decision useful information to stakeholders of financial statements. *The implementation of International Accounting standards in Jordan commenced in the year 1999 [1], which insisted on the implementation of impairment of assets (IAS 36), and how the impairment loss should be recognized.* IAS 36 [2]. Impairment applies to all tangible, intangible and financial assets except inventories IAS 2 [3], assets arising from construction assets (IAS 11) [4], deferred taxation assets (IAS 12) [5], assets arising from employee benefits (IAS 19) and financial assets within the scope of IFRS 9 (IAS 39) [6]. This is because those IAS's already have rules for recognizing and measuring impairment. IAS 36 does not apply to non-current assets held for sale that is covered by IFRS [7]. Adopting of (IAS 36) on large basis, and future directions of Jordan public share holding companies can deeply modify the way companies actually use to account for noncurrent assets, IAS 36 seems to adopt a Discounted Cash Flow (DCF) approach, since it states that value-in-use must be calculated, estimating the future cash inflows and outflows deriving from the asset, applying the appropriate discount rate to these future flows. The objective of this study is to prescribe procedures that the company has to follow, keeping in mind, all non-current assets should be carried at no more than their recoverable amount. When non-current assets are impaired (the fair value of the asset is less than book value), the resources of a company have changed in value. Thus, it is considered important to inform external users,

such as creditors and investors, of the change in financial information, and to provide them with relevant information. Objective of this study is to investigate if the Jordanian companies largely use ISA 36 or not, to make sure for the companies those apply impairment criteria, if they reflect impairment in their financial statements, and to understand the effect of present value of discounted cash flows on impairment loss.

## 2. LITERATURE REVIEW

### 2.1 Key Terms

#### 2.1.1 Book value (carrying amount) of the asset

Represents the amount that is recognized for the non-current asset in the financial position statement after the exclusion of accumulated depreciation, and the loss of its value.

#### 2.1.2 Fair value of the asset (fair value)

Represents the price that would be received to sell an asset, or paid to transfer a liability in an orderly transaction between market participants at the measurement date in an active market.

#### 2.1.3 Recoverable amount of an asset

Is the higher of its fair value less costs of disposal and its value in use? If either of these amounts exceeds the asset's carrying amount, the asset is not impaired and it is not necessary to estimate the other amount.

#### 2.1.4 Decrease in asset value (impairment loss)

If, the recoverable amount of an asset is less than its book value (book value), the book value of the asset shall be reduced to its recoverable amount.

#### 2.1.5 Value in use

The present value of discounted cash flows within the expected consequences of the use of such an asset.

## 2.2 Legal Framework of Impairment

### 2.2.1 Measuring asset's value in use

The following elements shall be reflected in the calculation of an asset's value in use according to

IAS 36 [8]: Cash outflows should not include outflows relating to obligations already recognized as liabilities and no account should be taken of future restructuring costs that the entity is not yet committed to. In order to guard against the use of over-optimistic estimates of cash flows IAS 36 states the following:

1. Cash flow projections should be based on reasonable and supportable assumptions made by management.
2. Cash flow projections should be based on the most recent financial budgets or forecasts. These budgets should cover a maximum period of five years unless a longer period can be justified.
3. For cash flow projections beyond five years, detailed cash flows budgets are unreliable and management should just extrapolate the fifth year using a steady or declining growth rate. IAS 36 does permit an increasing growth rate if, in the unlikely case, it can be justified.

### **2.2.2 Recognizing and measuring an impairment loss**

An impairment loss shall be recognized immediately in profit or loss. An impairment loss shall be recognized for a cash-generating unit (the smallest group of cash-generating units to which a corporate asset has been allocated) if, and only if, the recoverable amount of the unit (group of units) is less than the book value of the unit (group of units). The impairment loss shall be allocated to reduce the book value of the assets of the unit (group of units) in the following order according to IAS 36 [9]: The entity shall not reduce the book value of an asset below the highest of: (a) its fair value less costs to sell (if determinable); (b) its value in use (if determinable); and (c) zero. IAS (36) requires measuring the value of non-current assets, and reporting in financial statements value of not less than the recoverable amount for these assets, to identify how to access this value, this standard would be applied on the basis of cost of the acquisition, these non-current assets should be recorded in the books on the basis of the amounts re-evaluated in accordance with the requirements of IAS (16) [10] and (Companies at the date of the financial statements should examine all of its assets to find any circumstances which indicate the lack of inventory value that may exceed the recoverable amount, where, recoverable amount represents the highest net value of fair (market) of the asset or its value in use.

### **2.2.3 Discount rate**

The discount rate is the rate, that can be paid by the company in a deal market is underway to borrow money to buy group of assets. If the discount rate is not available in the market, we must use the rate of replacement reflects the time value of money over the life of the original, taking into account the cost of capital weighted to the company, and the rate of borrowing additional to the company, and any other rates for borrowing (IAS 36.57) [11], and must recognize the loss of the lack of value of the asset when the book value is higher than its recoverable amount (IAS 36.59) [12].

### **2.3 Prior Literature Review**

From the survey of literature review, it appears that: First, most studies concentrate on three pivotal aspects relating to impairment; the first, considers applying impairment as a tool to provide accurate information and increase transparency by increasing the representational faithfulness of reported information [13,14,15]. The second pivot considers the impairment concept as a tool for manipulation [16,17,18,19,20,21]. The third pivot examines the association between impairment loss and market reaction, or stock prices reaction, and performance [22,23]. Literature on impairment of assets in Jordan is so scanty, and insufficient that it is difficult to determine value relevance of accounting information, Most of researches worldwide concentrated on the usefulness of the new standards as compared to the previous practices. Olugbenga, et al. [24] in their study entitled Financial Reporting and Compliance of Impairment of Non-current Assets in the Nigerian, The purpose of their study was to analyze financial reporting and implementation of impairment of non-current assets in the financial reports of Nigerian banks. The specific objectives of the study were: (i) to determine the ratio of banks which disclose scope and method of impairment of assets in their annual reports for 2012. (ii) to determine the ratio of Nigerian banks which disclose impairment of classes of assets in their 2012 annual report, one of its results is Disclosing of information on significant impairment of Assets are set out under the IFRS, companies should disclose additional information for each significant impairment, in the results, 100% of banks disclosed the accounting policy for asset impairment. Also 100% of banks recognized impairment losses in the income statement, cash flow and financial position. While

91% of banks disclosed the measurement method.

Prior researchers got the evidence that impairments disclose private information to reduce uncertainty about firm value in the period prior to the global financial crisis (GFC). During the global financial crisis (GFC), a significant number of firms, confronted by unprecedented market volatility, substantial declines in profitability and sustained falls in stock prices, needed to recognize asset impairments, Amir Vanza and et al. [25]. In view of the economic value concept, independently of any legal aspect, companies should periodically assess their assets' impairment Reistem; Lander, [26]. Hitz and Kuhner [27] analyzed the usefulness of impairment charge in decision making through comparing the net income prior and after goodwill write offs to the economic income, they favored the goodwill impairment method over the amortization method. Chen et al. [19] proved that the new rules of goodwill accounting outperform the previous enactments. On the other hand, Wiese, [28] favored the amortization approach. Chambers [13] concluded that goodwill accounting under SFAS 142 does not improve financial reporting compared to amortization-based accounting. Carlin et al. [29] discussed the adoption of IFRS 3, which seemed to be complex and of great risk according to their conclusion. Zhang and Zhang, [30] predicted that management is motivated to allocate more purchase price to goodwill. The exposure draft of SFAS 142 includes some indicators of goodwill overpayment. First, the existence of more than one bidder may cause the value allocated to goodwill to be overstated, Ruback [31]. Second, the means of payment is an important indicator when evaluating goodwill overpayment. Kuzmina, Irina, and Ieva Kozlovska [32] reveals the theoretical and practical relevance of the researched topic examines the existing approaches used by Latvian companies for measuring the value of long-lived assets and considers the peculiarities of information disclosure in their financial statements. Particular attention is paid to the importance of measuring assets impairment using the example of a Latvian fuel retail company. The authors' conclusions based on the study of Western publications and analysis of Latvian practices will be useful for the company management when forming the company's accounting policy for measuring and valuing long-lived assets, and may be taken into consideration by investors when developing investment strategies. Tsoy Alexander [33]

Examines impairment accounting practice and impairment testing methods in Russia and Kazakhstan.

Peetathawatchai, Acaranupong [34] found out that there is connection between impairment losses and indicators. Management of many companies uses in practice the recognition of impairment losses in order to smooth earnings in its increasing periods. Ullah, Farooq and Niazi [35] Investigated the effect of asset impairments on analysts' choices of valuation models by the UK sample firms and find significant preference in discounted cash flow method after IAS 36 is applied. Sooriyakumaran L. and Velnampy T. [36], according to their study, the disclosure of impairment was analyzed by using descriptive statistics and the impacts were evaluated by inferential statistics of regression and analyzed the relationship by correlation and coefficient between Impairment loss and selected accounting information of Return On Assets (ROA), Return On Capital Employed (ROCE), Net Profit Margin (NPM), Operating Profit Ratio (OPR), and Earning Per Share (EPS). According to the findings 6% of reports disclosed very detailed information about the impairment. Nearly 90% of companies fail to give any reason to the impairment loss, even though they met the significant amount loss. All the companies have disclosed the accounting policies of impairment of assets. The results of analyzing impact of impairment show that, reported impairment losses had a significant impact upon reported profits. Loss making companies were more adversely affected by impairment losses than profitable companies. The sample company's EPS dropped from 0.21 to -1.89 by recording Impairment loss. Hence the impairment loss was often a significant component of the reported overall loss. Future company financial reports on impairment could improve the disclosure to include a clear cause of impairment stated unambiguously in the annual reports with supporting value. On the Arabian side, Rishani study [37], which aims to identify the concepts of accountability lack of value of long-term assets in the accounting standards of U.S, and international one, with their application in Syria, this study included a sample of (60) persons whom the practitioners of the auditing profession, and practitioners of the profession of accounting firms, in both public and private sectors in Syria, this study found that there are differences between American standards and international accounting standards, moreover, found that the public and private sectors do not apply any of

these criteria, the study therefore recommends the application of international accounting standards in Syria.

### 3. RESEARCH METHODOLOGY

Data were collected from Annual reports of the selected industrial companies listed in Amman Stock Exchange (ASE) during the years 2005 to 2008. The industrial sector is chosen because of the importance role-plays in Jordan economy. Only 30 companies *impaired their non-current assets were selected out of 73* industrial companies due to the availability of required information during the research period. However, descriptive statistics, Wilcoxon and, Wilcoxon Signed Ranks Test has been adopted for Data Analysis and Hypothesis Testing [38]. The General Proposition to examine is: There are statistical differences of ratio of discounted cash flow to book value of non-current assets (CFN) toward impairment loss. The following sub-hypotheses are effectively tested in this study:

- H1:* There are statistical differences of ratio of discounted cash flow to book value of non-current assets (CFN) toward impairment loss for 2005 compared to 2006.
- H2:* There are statistical differences of ratio of discounted cash flow to book value of non-current assets (CFN) toward impairment loss for 2006 compared to 2007.
- H3:* There are statistical differences of ratio of discounted cash flow to book value of non-current assets (CFN) toward impairment loss for 2007 compared to 2008.
- H4:* *There are* statistical differences of ratio of *discounted* cash flow to book value of non-current assets toward impairment loss for 2005 compared to 2008.

#### 3.1 Data Presentation, Analysis and Hypotheses Testing

It is necessary to compare book value of non-current assets with value in use, if book value of such assets is lower than value in use, the impairment loss will not occur. The amount of impairment is equal to the difference between the book value and the recoverable value of an asset. For calculating value in use, the discounted operating cash flows of non-current assets can be computed as follows: (1) Cash flows for non-current assets = {Operating Cash Flows} {Non-current Assets ÷ Total Assets}, and (2) Discounted Cash Flows = {Annual Operating

Cash Flows for Non-current Assets} {Discount Rate}. Capital Assets Pricing Model (CAPM) based on the weighted average for cost of capital has been estimated at 5% for the industrial companies as a whole. Table (1) represents the discount rates for the years covered in this study:

**Table 1. Discount rate from (2005) to (2008)**

Year	2005	2006	2007	2008
Discount rate	-	0.95238	0.90702	0.86383

Table (2) showed an estimated impairment loss, these differences shown by comparing book value of non-current assets with value in use (Discounted cash flows). One can conclude, the recoverable amount of an asset as one group is less than its book value, the latter amount shall be reduced to its recoverable one, and this difference is an impairment loss. Table 2 provides descriptive statistics relating to the reported write-offs. This data is collected to provide additional insights into the properties of the write-offs used in the sample.

The above table reveals that: all industrial companies have had book values more than their values in use of non-current assets; it means, there is an impairment loss for these assets. One can conclude these companies suffer from the decline in market value of their non-current assets, this decline may due to some indicators I; e, changes in technological levels, in the law, increase in market rates of interest, obsolescence, or poor economic performance larger than expected. The general ratio is 11.72% comes from dividing total discounted operating cash flows to Book values for companies as a whole, it means; for every Jordanian Dinar (JD) 11.72 of Discounted cash flows, only JD 100 represent book value of non-current assets appears on the balance sheet, these assets are over-evaluated. Table 3 indicates ratio of operating cash flows to book value of non-current assets.

One can observe some fluctuations; increasing, or decreasing trends in relation to ratio of discounted operating cash flow compared with book value of non-current assets during the years 2006, 2007, 2008 compared with 2005, as a base year. Additional analysis can be presented as follows from Table 3:

**First:** Ratio trends of discounted operating cash flow compared with book value of

non-current assets for the periods 2006, 2007, 2008 compared with 2005 as a base year, only (9) companies or (30%) of the sample size have a decreasing ratio trend as shown in Tables 3 and 4.

**Second:** Ratio trends of discounted operating cash flows compared to book value of non-current assets for 2006, 2007, 2008 taking into account 2005 as a comparison year, one can say, there was an increasing attitude in the number of companies which showed an impairment loss during the period 2005-2008 approximated (30%) or (9) companies as shown in Tables 3 and 5.

**Third:** Fluctuated ratio trends of discounted operating cash flow compared to book value of non-current assets for 2006, 2007, 2008 with 2005 as a base year, only (12) companies or (43.33%) of the sample size have a fluctuated trends (increasing, decreasing, or constant), as shown in Tables 3 and 6.

Table 7 displays a descriptive summary of Tables 4, 5, 6 and 7 reveals a ratio of cash flows on non-current assets (increasing, decreasing, constant) for the years 2006, 2007, 2008 as compared with 2005 as a base year.

As per Table 7. Most of cases have decreasing trends for 2006, 2007, 2008 compared with 2005, it means, there is an impairment loss for the selected companies' non-current assets understudy. To test the main proposition and other sub-hypotheses, a Wilcoxon test is used whether the distribution of two paired variables in two related samples is the same. This test takes into account the magnitude of the differences between two paired variables. The output includes a ranks table, showing, for each pair, the number of valid cases, positive and negative differences, their respective mean and sum of ranks, and the number of ties. Output also includes a test statistics table, showing Z and probability of Z (*siegel, 1988*). Since the computed probability value at 5% level of significance is more than .05, alternative hypothesis is accepted. Year-by-year data is used in addition to those found in the main analyses using pooled data; the following scenarios would be taken for the years 2005-

2006, 2006-2007, 2007-2008, and 2005-2008 as follows:

*H1:* There are statistical differences of ratio of discounted cash flow to book value of non-current assets (CFN) toward impairment loss for 2005 compared to 2006.

Table 8, compare discounted operating cash flows value to book value of non-current assets as a measure of impairment loss in 2006 with 2005. The statistic of  $Z=(-.298)$ , alongside its p-value ( $p=0.766>0.05$ ) indicates that the data doesn't satisfy normality. It can be suggested that null hypothesis is strongly rejected at 5%, which means "There are statistical differences of ratio of discounted cash flow to book value of non-current assets (CFN) toward impairment loss for 2006 compared to 2005, we conclude there is no any improvement in discounted operating cash flows on non-current assets. The events or changes in circumstances book value of non-current assets may not be recoverable in the Jordanian Industrial Companies.

*H2:* There are statistical differences of ratio of discounted cash flow to book value of non-current assets (CFN) toward impairment loss for 2006 compared to 2007.

Table 9 below, compare discounted operating cash flows value to book value of non-current assets as a measure of impairment loss in 2007 with 2006. The statistic of  $Z=(-.298)$ , alongside its p-value ( $p=0.766>0.05$ ) indicates that the data doesn't satisfy normality. It can be suggested that null hypothesis is strongly rejected at 5%, which means "There are statistical differences of ratio of discounted cash flow to book value of non-current assets (CFN) toward impairment loss for 2007 compared to 2006; we conclude that there is no any improvement in discounted operating cash flows on non-current assets. The events or changes in circumstances indicate that book value of non-current assets may not be recoverable in the Jordanian Industrial Companies.

*H3:* There are statistical differences of ratio of discounted cash flow to book value of non-current assets (CFN) toward impairment loss for 2008 compared to 2007.

Table 2. Impairment loss for 2005-2008

N.	Discounted operating cash flows				Total discounted cash flows	Book values	Impairment (differences)	Effect
	2008	2007	2006	2,005				
1	503,163	1,750,773	2,303,287	42,778	4,600,001	82,093,819	77,493,818	yes
2	1,116,858	1,503,015	1,069,267	783,924	4,473,063	140,579,393	136,106,330	yes
3	(257,130)	(624,785)	141,044	105,042	(635,828)	25,427,943	26,063,771	yes
4	(92,644)	(80,210)	59,902-	39,751	(193,005)	4,097,181	4,290,186	yes
5	22.00	41,578	48,315	19,024	108,939	2,624,334	2,515,395	yes
6	(53,390)	(4,004)	10,676-	64,169	(3,902)	3,215,025	3,218,927	yes
7	(99,254)	35,292	43,773	213,793	193,605	6,508,835	6,315,230	yes
8	459,096	1,961,669	2,095,680	1,387,150	5,903,595	75,552,098	69,648,503	yes
9	286,514	353,092	77,751	-495,603	221,754	24,856,772	24,635,018	yes
10	140,953	(19,641)	37,085-	-70,336	13,892	13,944,752	13,930,860	yes
11	(80,693)	(33,086)	395,656	55,301	337,178	9,633,661	9,296,483	yes
12	55,790	419,769	573,677	859,528	1,908,765	29,641,490	27,732,725	yes
13	(99,254)	35,300	43,773	210,074	189,894	6,479,903	6,290,009	yes
14	286,277	625,241	905,086-	-138,855	(132,423)	61,079,369	61,211,792	yes
15	(169,233)	(534,504)	901,506	277,999	475,769	26,083,157	25,607,388	yes
16	(5,118,827)	668,289	1,100,468	-855,891	(4,205,961)	82,139,761	86,345,722	yes
17	(14,010)	(136,825)	204,286-	131,075	(224,047)	4,407,272	4,631,319	yes
18	67,777,404	17,610,114	13,255,916	16,777,823	115,421,258	706,987,000	591,565,742	yes
19	23,503,184	38,689,281	35,234,312	35,328,663	132,755,439	560,915,533	428,160,094	yes
20	27,337,941	13,683,012	9,008,305	3,930,705	53,959,963	346,844,485	292,884,522	yes
21	233,537	362,567	279,850-	1,406,439	1,722,693	28,432,933	26,710,240	yes
22	22,513	(12,209)	57,408	63,328	131,040	2,090,378	1,959,338	yes
23	149,383	171,333	67,252-	141,133	394,597	15,793,118	15,398,521	yes
24	99,619	(350,652)	189,284-	-70,647	(510,964)	31452642	31,963,606	yes
25	152,243	45,713	884-	-83,445	113,627	3,858,613	3,744,986	yes
26	(70,587)	393,686	123,205-	-175,997	23,897	15,077,926	15,054,029	yes
27	(257,455)	146,498	200,411	-174,087	(84,633)	7,770,315	7,854,948	yes
28	20,031	(34,893)	41,687-	189,809	133,259	5,565,691	5,432,432	yes
29	(4,649,762)	(80,341)	1,574,062-	-543,530	(6,847,696)	64,929,389	71,777,085	yes
30	(119,682)	458,096	31,946	295,718	666,078	28,203,017	27,536,939	yes
T	119,826,837	64,750,581	50,188,646	48,507,205	283,273,269	2,416,285,805	2,133,012,536	yes

Table 10 below, compare discounted operating cash flows value to book value of non-current assets as a measure of impairment loss in 2008 with 2007. The value of  $Z=(-.998)$ , alongside its p-value ( $p=0.318>0.05$ ) indicates that the data doesn't satisfy normality. It can be suggested that null hypothesis is strongly rejected at 5%, which means "There are statistical differences of ratio of discounted cash flow to book value of non-current assets (CFN) toward impairment loss for

2008 compared to 2007, we conclude; that there was no improvement in discounted operating cash flows on non-current assets for the period 2007-2008.

*H4:* There are statistical differences of ratio of discounted cash flow to book value of non-current assets (CFN) toward impairment loss for 2008 compared to 2005.

**Table 3. Ratios of discounted cash flows to book value 2005-2008**

Company	2008	2007	2006	2005
1	8.64%	30.32%	42.57%	0.96%
2	4.34%	3.87%	2.61%	1.82%
3	-15.40%	-32.93%	6.54%	4.81%
4	-21.26%	-18.03%	-19.09%	16.35%
5	0.39%	807.84%	967.08%	1113.72%
6	-69.92%	-7.59%	-17.67%	88.08%
7	-11.99%	3.64%	4.18%	17.68%
8	28.24%	20.28%	27.85%	23.48%
9	11.35%	13.41%	2.55%	-13.70%
10	2.78%	-100.30%	-293.18%	-411.44%
11	-14.81%	-5.11%	52.72%	7.70%
12	6.90%	54.23%	70.66%	104.14%
13	-11.99%	3.64%	4.18%	17.99%
14	24.77%	41.70%	-42.65%	-5.70%
15	-10.35%	-27.40%	35.64%	10.19%
16	-21.40%	34.38%	41.31%	-25.43%
17	-3.79%	-30.41%	-49.41%	35.28%
18	93.03%	30.60%	30.79%	52.23%
19	26.02%	50.02%	58.14%	69.45%
20	217.09%	76.40%	42.64%	14.26%
21	11.61%	16.50%	-11.24%	41.72%
22	28.82%	-13.32%	55.98%	72.51%
23	21.70%	20.43%	-6.73%	12.55%
24	3.10%	-6.29%	-3.00%	-78.25%
25	100.00%	25.27%	-0.39%	-57.45%
26	-6.10%	26.82%	-7.42%	-9.69%
27	-99.01%	46.46%	52.94%	-39.10%
28	5.20%	-6.49%	-5.96%	20.60%
29	-95.42%	-2.88%	-65.98%	-35.13%
30	-3.62%	13.62%	0.91%	7.23%

**Table 4. Decreasing ratios for 2005-2008**

Company	2008	2007	2006	2005
4	-21.26%	-18.03%	-19.09%	16.35%
5	0.39%	807.84%	967.08%	1113.72%
6	-69.92%	-7.59%	-17.67%	88.08%
7	-11.99%	3.64%	4.18%	17.68%
12	6.90%	54.23%	70.66%	104.14%
13	-11.99%	3.64%	4.18%	17.99%
17	-3.79%	-30.41%	-49.41%	35.28%
19	26.02%	50.02%	58.14%	69.45%
22	28.82%	-13.32%	55.98%	72.51%



**Table 5. Increasing ratios for 2005-2008**

Company	2008	2007	2006	2005
1	8.64%	30.32%	42.57%	0.96%
2	4.34%	3.87%	2.61%	1.82%
9	11.35%	13.41%	2.55%	-13.70%
10	2.78%	-100.30%	-293.18%	-411.44%
16	-21.40%	34.38%	41.31%	-25.43%
20	217.09%	76.40%	42.64%	14.26%
24	3.10%	-6.29%	-3.00%	-78.25%
25	100.00%	25.27%	-0.39%	-57.45%
26	-6.10%	26.82%	-7.42%	-9.69%

**Table 6. Fluctuated ratios for 2005-2008**

Company	2008	2007	2006	2005
3	-15.40%	-32.93%	6.54%	4.81%
8	28.24%	20.28%	27.85%	23.48%
11	-14.81%	-5.11%	52.72%	7.70%
14	24.77%	41.70%	-42.65%	-5.70%
15	-10.35%	-27.40%	35.64%	10.19%
18	93.03%	30.60%	30.79%	52.23%
21	11.61%	16.50%	-11.24%	41.72%
23	21.70%	20.43%	-6.73%	12.55%
24	3.10%	-6.29%	-3.00%	-78.25%
27	-99.01%	46.46%	52.94%	-39.10%
28	5.20%	-6.49%	-5.96%	20.60%
29	-95.42%	-2.88%	-65.98%	-35.13%
30	-3.62%	13.62%	0.91%	7.23%

**Table 7. Descriptive summary of ratios for 2005-2008**

Analyses with 2005 as a base year			%	Of companies
2008	2007	2006		
decrease	decrease	decrease	30.00	9
increase	increase	increase	30.00	9
decrease	decrease	increase	10.00	3
increase	decrease	increase	3.33	1
increase	increase	decrease	10.00	3
increase	decrease	decrease	6.67	2
decrease	increase	increase	3.33	1
decrease	increase	decrease	6.67	2
<b>Total of companies</b>			<b>100.00</b>	<b>30</b>

Table 11, compare discounted operating cash flows value divided by book value of non-current assets for 2008 with 2005. The statistic value of  $Z=(-1.574)$ , alongside its p-value ( $p=0.116>0.05$ ), which indicates that the data do not satisfy normality. Table 11 suggests that the null hypothesis is strongly rejected at 5%, it means "There are statistical differences of ratio of discounted cash flow to book value of non-current assets (CFN) toward impairment for the years 2005 - 2008 .It is suggested that companies should take some indicators into consideration, these; economic indicator

(discount cash flow), and accounting indicator (operating cash flow), one can infer; that there is an evidence for such indicators on the impairment of non-current assets, in other words, Impairment of non-current assets can be affected by some of indicators as mentioned earlier, the impairment loss also can be affected by the shortage of operating cash inflows as has been shown through the period 2005-2008, the rate of discounted present value, moreover, there was no any improvement in operating cash flows compared with book value of non-current assets during the study period 2005-2008, this result can

be related to the shortage of operating cash under study have got negative operating cash inflows, and most of the industrial companies flows.

**Table 8. Test of hypothesis Ha1 for 2005-2006**

		Ranks		
		N	Mean rank	Sum of ranks
var2006 - var2005	Negative ranks	15 <sup>a</sup>	16.47	247.00
	Positive ranks	15 <sup>b</sup>	14.53	218.00
	Ties	0 <sup>c</sup>		
	Total	30		
a. var2006 < var2005				
b. var2006 > var2005				
c. var2006 = var2005				
Test statistics				
				var2006 - var2005
Z				-.298 <sup>b</sup>
Asymp. Sig. (2-tailed)				.766
a. Wilcoxon signed ranks test				
b. Based on positive ranks.				

**Table 9. Test of hypothesis Ha2 for 2006-2007**

		Ranks		
		N	Mean Rank	Sum of Ranks
var2007 - var2006	Negative Ranks	6 <sup>a</sup>	13.63	218.00
	Positive Ranks	14 <sup>b</sup>	17.64	247.00
	Ties	0 <sup>c</sup>		
	Total	30		
a. var2007 < var2006				
b. var2007 > var2006				
c. var2007 = var2006				
Test statistics				
				var2007 - var2006
Z				-.298 <sup>b</sup>
Asymp. Sig. (2-tailed)				.766
a. Wilcoxon Signed Ranks Test				
b. Based on negative ranks.				

**Table 10. Test of hypothesis Ha3 for 2007-2008**

		Ranks		
		N	Mean rank	Sum of ranks
var2008 - var2007	Negative ranks	19 <sup>a</sup>	14.79	281.00
	Positive ranks	11 <sup>b</sup>	16.73	184.00
	Ties	0 <sup>c</sup>		
	Total	30		
a. var2008 < var2007				
b. var2008 > var2007				
c. var2008 = var2007				

Test Statistics <sup>a</sup>		var2008 - var2007
Z		-.998 <sup>b</sup>
Asymp. Sig. (2-tailed)		.318
a. Wilcoxon Signed Ranks Test		
b. Based on positive ranks.		

Table 11. Wilcoxon test and test of hypothesis Ha for 2005-2008

		Ranks		
		N	Mean rank	Sum of ranks
var2008 - var2005	Negative ranks	18 <sup>a</sup>	17.17	309.00
	Positive ranks	12 <sup>b</sup>	13.00	156.00
	Ties	0 <sup>c</sup>		
	Total	30		
a. var2008 < var2005				
b. var2008 > var2005				
c. var2008 = var2005				

Test statistics <sup>a</sup>		var2008 - var2005
Z		-1.574 <sup>b</sup>
Asymp. Sig. (2-tailed)		.116
a. Wilcoxon Signed Ranks Test		
b. Based on positive ranks.		

#### 4. CONCLUSION AND RECOMMENDATIONS

Based on the investigation of financial statements of the selected industrial companies in ASE in the period 2005-2008, The financial ratio of discounted operating cash flows to book value of non – current assets has shown impairment loss from year to year. The same result has been assured by using statistical Wilcoxon test; there was no any positive improvement in operating cash flows compared with book value of non-current assets during 2005-2008, impairment loss of non-current assets shows increasing, decreasing and fluctuated trends. These trends should be recognized, measured, and reflected in the financial statements on the light of events or changes in economic circumstances. Impairment loss can be affected by the discount rate used, in addition to operating cash inflow and cash outflow. This increase in impairment loss is expected, when business conditions in Jordan are taken into consideration. we recommend that; it is necessary for all regulatory bodies in Jordan (Ministry of Industry and Trade, The Jordanian Association of Certified Public Accountants (JACPA), Amman Stock Exchange (ASE). etc. to identify the companies with the Importance of implementing the impairment test. Further, requirements relating to recognition, measurement and disclosure of IAS 36 should be

considered. Another major task is to give more attention to the economic and financial indicators (Present value, cash flow to non-current assets carrying amount) that are coherent to impairment accounting, these indicators should be taken as a primary key for company' evaluation for decision-making.

#### 5. SUGGESTED RESEARCHES

- 1- Tax and effect of impairment accounting on financial reporting.
- 2- The extent of disclosure of impairment loss.

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#### COMPETING INTERESTS

Author has declared that no competing interests exist.

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