



12-7-2012

## Economic Effects of a LIFO Reserve Rollover

Michael Eubanks

Western Michigan University, michael.r.eubanks@wmich.edu

Follow this and additional works at: [https://scholarworks.wmich.edu/honors\\_theses](https://scholarworks.wmich.edu/honors_theses)



Part of the Accounting Commons

---

### Recommended Citation

Eubanks, Michael, "Economic Effects of a LIFO Reserve Rollover" (2012). *Honors Theses*. 2343.  
[https://scholarworks.wmich.edu/honors\\_theses/2343](https://scholarworks.wmich.edu/honors_theses/2343)

This Honors Thesis-Open Access is brought to you for free and open access by the Lee Honors College at ScholarWorks at WMU. It has been accepted for inclusion in Honors Theses by an authorized administrator of ScholarWorks at WMU. For more information, please contact [wmu-scholarworks@wmich.edu](mailto:wmu-scholarworks@wmich.edu).



Economic Effects of a LIFO Reserve Rollover

Mike Eubanks

Lee Honors College 2012

## Introduction

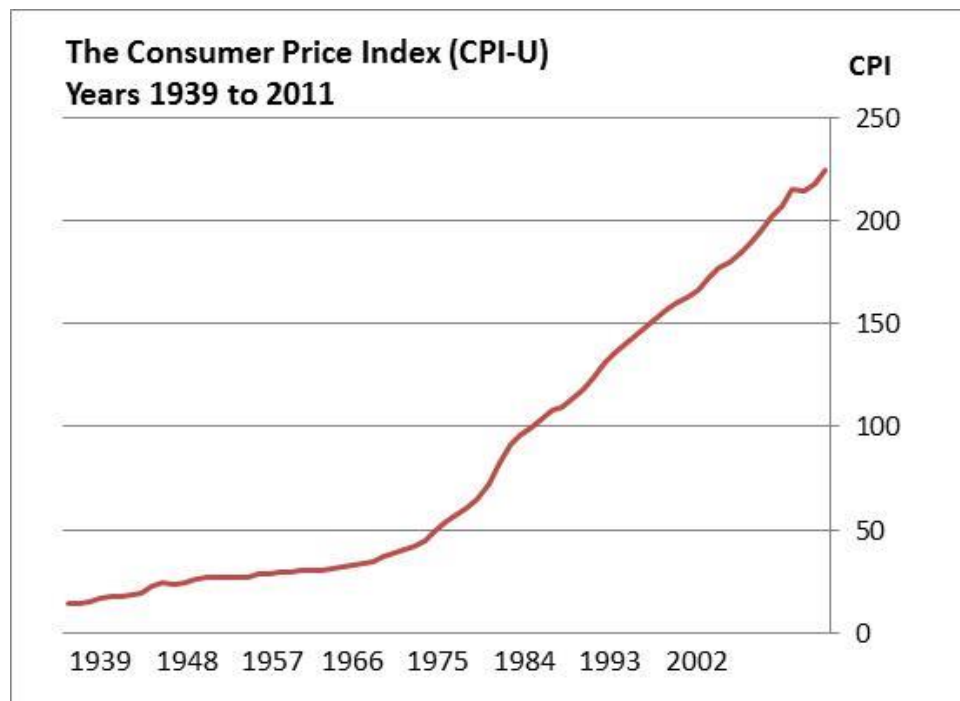
The Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) have been working together toward the convergence of accounting standards to provide a single set of high quality global standards. (Financial Accounting Standards Board, 2012) Companies who are currently in compliance with Generally Accepted Accounting Principles (GAAP) will need to make necessary adjustments as those standards converge with International Standards. GAAP uses a rules based approach while the IFRS is more principle based. These contrasting approaches create differences that need to be reconciled at various levels of the two standards' applications. Perhaps the most telling example, under *AIS 2 Inventories*, the last-in, first-out (LIFO) inventory method is prohibited by IASB Standards. This inventory method, however, has been permitted by the Internal Revenue Service since the 1930s. In fact, it is preferred by companies who hold inventory during inflationary periods as it minimizes their income tax liability. The issue here is the present conformity rule, where if the LIFO method is used for income tax purposes, it also must be used for financial reporting purposes. The "conformity" rule, as presently enforced, will not allow LIFO tax and financial accounting if international rules are followed. This paper identifies the economic effects of the elimination of the LIFO inventory method (hereafter referred to as the LIFO reserve rollover).

## LIFO history

The Internal Revenue Service approved the LIFO method for use in the Revenue Act of 1939. Over time, the use of the LIFO method has caused inventory valuations on the balance sheet to be much less than that inventory's replacement cost. Accordingly "Since 1972, the Securities

and Exchange Commission has required publically traded companies to disclose the excess of current cost or replacement cost of inventory over LIFO values stated on the balance sheet when these differences are material.” (Coffee, Roig, Lirely, & Little, 2011, p. 9) That disclosure amount is also known as the LIFO Reserve. This disclosure requirement arises from the LIFO conformity rule of IRC § 472(c) which stipulates the use of LIFO for financial reporting if used for tax purposes. (Davis, 1982) The LIFO Reserve for many companies has resulted in significant accumulated balances over the 70 year time period. The increases in the Reserve are due to inflation as measured by the Consumer Price Index (CPI), which can be seen as a surrogate for the actual inflation rate in specific industries. The average percentage increase of CPI inflation has been consistently 2 % +/- 1% for the past 20 years, as presented in Table 1. (Moody, 2010)

*Table 1.* Total Inflation Since LIFO



The data derived InflationData.com for fiscal years 1939 to 2011.

These inflationary periods have helped increase the total LIFO reserve significantly since its onset. Since inflation impacts industries differently, certain industries will have enhanced sensitivities with regard to price fluctuations and materiality against other balance sheet values.

#### LIFO Reserve Accounting Flows

The LIFO “conformity rule” is really the driving force behind the increased attention over the convergence. LIFO is an inventory valuation technique which allocates the most recent prices of inventory to flow to the cost of goods sold (COGS) and the oldest inventory prices to items to remain in the inventory balance. In a period of increasing inflation and prices, the cost of goods sold using the LIFO method will be higher than under the first-in-first-out method (FIFO). This is because the cost of inventory sold more closely approximates current replacement cost as opposed to historical cost. The LIFO Reserve then is the difference between the inventory carrying value that a company reports when using LIFO and the inventory carrying value if the inventory is priced at replacement cost, which approximates the FIFO inventory method. .

An example of LIFO Reserve journal entries to establish or to adjust the size of this reserve is:

To record the Adjustment:

Cost of Goods Sold	XXXX
LIFO Reserve	XXXX

The adjustment is made at the end of every accounting period to adjust other accepted inventory methods to the LIFO method. The LIFO Reserve account is a contra asset to the inventory account, which brings down the book value of inventory when netted against it. Over

time this reserve balance accumulates as inflation continuously increases the difference between the historical cost and replacement cost of inventory, which can significantly understate the appropriate book value of inventory on the balance sheet and dilute financial ratios. The LIFO accounting method uses an income statement approach and better matches current costs with revenues. Favoring an accurate income statement presentation can leave the balance sheet to become diluted. GAAP is not totally opposed to the income statement approach while the IFRS favors a balance sheet approach. This is why the IASB is not in favor of the use of LIFO as an acceptable accounting method.

#### The Elimination of LIFO

The disallowance of LIFO through the adoption of IFRS or the passing of the 2012 Budget proposals will require companies to eliminate their LIFO Reserve account. To do this, a retrospective adjustment to past years is required under Financial Accounting Standard 154, Changes in Accounting Principles. The entry to eliminate the reserve effectively restates the inventory levels to what it would be under FIFO, recognizes taxes to be paid currently and in the future, and increases accumulated revenue or retained earnings. The entry to eliminate the LIFO Reserve account is provided below.

To record the LIFO Reserve rollover:

LIFO Reserve	XXXX
Retained Earnings	XXXX
Income Taxes Payable	XXXX
Deferred Income Taxes	XXXX

Once the LIFO Reserve is rolled-over, current proposals may allow tax deferral over a period of time. The Deferred Income Taxes account will hold the company's accumulated tax that will not be paid during the next tax period, but rather would be paid over future periods. If an immediate payment is not elected then amounts held will be amortized over a 4 or 10 year period under guidance from the Administration's 2012 budget or Tax Code, respectively. Under the LIFO method, the tax liability incurred by companies was minimized. This is because the cost of goods sold (COGS) was higher during inflationary periods, which in turn lowered the earnings before interest and taxes (EBIT) of the company. Taxes saved over time increased cash flows that were reinvested.

#### Tax Effects

Under the Internal Revenue Code (IRC) Section 481(a) the "adjustment period is four taxable years for a net positive adjustment for an accounting method change, and one taxable year for a net negative adjustment for an accounting method change." (Internal Revenue Bulletin, 2008, p. 6) Most companies who have used the LIFO accounting method for an elongated period of time will produce a net positive change making an accounting method change. The company has the option to deduct the full adjustment if the change is favorable, or elect to the four years if the change is negative. In the 2011 fiscal year budget proposal by the Obama administration, the proposed adjustment period with regards to a net positive change is spread over eight years. "The impact of changing from LIFO to another acceptable method of accounting for inventories may be mitigated under a legislative repeal of LIFO, as compared to the mandatory termination of a company's LIFO election effectively required upon adoption of IFRS." (PwC,

2009, p. 147) The Obama Administration's policy will smooth the effects of the change and constrict the company to the 10 period. Section 481(a) allows companies to elect a full adjustment or the 4 year adjustment. The revenue estimates included in the 2012 budget proposals issued by the Department of Treasury for LIFO repeal amounted to 45.87 billion dollars from 2012 to 2021. (U.S. Department of the Treasury, 2012) That amount was significantly less than the \$66.87 billion estimated by the Joint Committee on Taxation. (Barthold & Schmitt, 2012)

#### Current Proponents for LIFO Rollover

It is hard to determine the incremental costs associated with the accounting change. "FAS 154, *Accounting Changes and Error Corrections*, requires retroactive application to prior periods' financial statements of a voluntary change in accounting principle unless it is impractical." (Hall & Aldridge, 2007, p.1) There will be a significant cost associated with a retrospective application of accounting principles. The LIFO Reserve accounting method has been around long enough for some companies to accumulate significant value over a 50 to 70 year period. FASB is not clear as to what 'impractical' might mean.

Companies who have an established LIFO Reserve will most likely continue to do so until a mandatory switch of inventory methods occurs. The reluctance to switch early comes from the tax deferral available during inflationary periods.

The oil and gas industry have been greatly benefitted by LIFO accounting. In 2008, the Energy industry had the six biggest and nine of the 20 largest LIFO Reserves. It is most likely a result of increases in the annual average domestic crude oil prices. Prices have risen swiftly over the past



10 years increasing nearly 308 percent. (Inflation Data, n.d.) The huge incline in inflation increases sensitivity to inventory valuation and profits. The LIFO method is favorable to the oil industry because it protects them against price volatility in the market. "LIFO supporters contend that the method allows companies to match current costs with current revenue, protecting against inflation." (UIC, n.d.) The high rate of inflation for oil prices and accumulated LIFO Reserve propel big oil companies to lobby and advocate for the continuance of the LIFO accounting method.

#### Current Opponents to LIFO Rollover

There have been many attempts to abolish the LIFO inventory method. U.S. Senate leaders see the LIFO reserve as a means to fund initiatives. The Senate, Administration, and IFRS are all groups who are opposed to the continuance of LIFO. In May of 2006, Senate leaders proposed a \$100 gas-tax rebate for every American family by repealing the LIFO inventory method. (Shaw, 2006) Even though the proposal wasn't passed, the senate and other governmental leaders have not forgotten about the revenue potential of LIFO reserve repeal. The Obama administration has the LIFO Rollover as the third biggest estimated revenue amount in his 2012 revenue proposal. (U.S. Department of Treasury, 2012) It is appropriate to seek alternative methods of revenue, especially with a rising debt ceiling and the fiscal cliff on the horizon. From an accounting standpoint, the IFRS shifted its focus to more of a balance sheet approach instead of an income statement approach. Accounting distortions and balance sheet misrepresentations materially affect the balance sheet through the use of the LIFO method. (Coffee, Roig, Lirely & Little, 2011)

There are still major lobbyists nevertheless who will advocate for the continuance of LIFO as an acceptable accounting method. However, the momentum seems to be toward the elimination of LIFO, both for financial reporting and for income tax purposes. The inflation rate for a barrel of oil has increased 308 percent from 2002 to 2012. That amount of price increase adds further speculation for higher prices in the future. Big oil companies will not be able to mitigate the huge price increases if LIFO is prohibited.

### Parties Affected

Public clients who report to the SEC will be prohibited from using LIFO under the IFRS standards. A measurement in 2006 found that only 8.7 percent of 5,000 publically traded companies report under the LIFO method. (Shaw, 2006) Although that seems small, some companies carry large LIFO reserves, such as Exxon Mobil in the amount of \$25.4 billion. This would generate an \$8,890 \$8.890 billion tax liability considering the highest U.S. corporate tax bracket of 35 percent. As mentioned above, the oil and natural gas industry will be affected the most by the change in accounting principle. Inventory levels and profits are very sensitive to the increased costs caused by inflation.

The IFRS maintains two types of accounting standards: IFRS and IFRS for SMEs or small and medium sized entities. "The requirements in Section 13 of IFRS for SMEs are substantially the same as *IAS 2, Inventories*." (Marcellan, 2009, p. 23) This means that upon convergence to the IFRS, all companies who are required to report under international standards will be prohibited to use LIFO. The method of convergence is still unaddressed and could result in a staggered approach with a public company adoption before IFRS for SME.

The Obama Administration's 2012 budget proposal would include a superseding law, if passed, to prohibit LIFO. The new legislation would change the tax code to disallow the accounting for LIFO for all companies reporting to the IRS. The two methods to repeal the LIFO method mentioned above do not yet have a secured date of execution. There is still much uncertainty as to the timing of the disallowance.

### Financial Ratio Distortions

This section analyzes the numerical data for five companies as of December 31, 2011. The information was gathered from The Stock Analysis on Net's EBIT Financial Analyses Center. Conceptual consideration and qualitative cost drivers of companies are highlighted and discussed below.

The accumulation of the LIFO reserve minimizes income, raises COGS, and decreases the inventory carrying amount. Below is an aggregated summary of diluted ratios under both the FIFO and LIFO cost assumptions taken from Stock Analysis on net of the top 100 NYSE leaders. It includes the companies who carry the top LIFO reserves from December 31, 2007 to December 31, 2011.

Table 2. Five Companies With a Significant LIFO Reserve (In \$MM)

Adjusted ratios As of December 31 year end	Exxon Mobil Corp		Chevron Corp		Marathon Oil Corp.		Dow Chemical Co		Caterpillar Inc	
	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010
<b>Current Ratio</b>										
Reported current ratio (LIFO)	0.94	0.94	1.58	1.68	0.73	1.24	1.72	1.74	1.33	1.44
Adjusted current ratio (FIFO)	1.27	1.28	1.85	1.92	0.75	1.62	1.80	1.81	1.42	1.56
Percentage Difference	35.11%	36.17%	17.09%	14.29%	2.74%	30.65%	4.65%	4.02%	6.77%	8.33%
<b>Net Profit Margin</b>										
Reported net profit margin (LIFO)	8.79%	8.23%	11.01%	9.60%	20.09%	3.55%	4.57%	4.30%	8.19%	6.34%
Adjusted net profit margin (FIFO)	9.71%	9.36%	11.84%	10.35%	-7.82%	5.00%	4.74%	4.65%	7.94%	5.29%
Percentage Difference	10.47%	13.73%	7.54%	7.81%	-138.92%	40.85%	3.72%	8.14%	-3.05%	-16.56%
<b>Total Asset Turnover</b>										
Reported total asset turnover (LIFO)	1.41	1.22	1.17	1.07	0.47	1.45	0.87	0.77	0.74	0.67
Adjusted total asset turnover (FIFO)	1.31	1.14	1.12	1.03	0.47	1.33	0.85	0.76	0.72	0.64
Percentage Difference	-7.09%	-6.56%	-4.27%	-3.74%	0.00%	-8.28%	-2.30%	-1.30%	-2.70%	-4.48%
<b>Financial Leverage</b>										
Reported financial leverage (LIFO)	2.14	2.06	1.73	1.76	1.83	2.10	3.11	3.19	6.32	5.91
Adjusted financial leverage (FIFO)	1.98	1.93	1.68	1.71	1.83	1.94	3.01	3.09	5.48	4.97
Percentage Difference	-7.48%	-6.31%	-2.89%	-2.84%	0.00%	-7.62%	-3.22%	-3.13%	-13.29%	-15.91%
<b>Return on Equity (ROE)</b>										
Reported ROE (LIFO)	26.59%	20.74%	22.16%	18.10%	17.18%	10.80%	12.31%	10.58%	38.25%	24.94%
Adjusted ROE (FIFO)	25.20%	20.61%	22.20%	18.30%	-6.65%	12.95%	12.16%	10.92%	31.20%	16.81%
Percentage Difference	-5.23%	-0.63%	0.18%	1.10%	-138.71%	19.91%	-1.22%	3.21%	-18.43%	-32.60%
<b>Return on Assets (ROA)</b>										
Reported ROA (LIFO)	12.40%	10.07%	12.84%	10.30%	9.39%	5.13%	3.96%	3.32%	6.05%	4.22%
Adjusted ROA (FIFO)	12.72%	10.70%	13.25%	10.70%	-3.64%	6.68%	4.04%	3.53%	5.69%	3.38%
Percentage Difference	2.58%	6.26%	3.19%	3.88%	-138.76%	30.21%	2.02%	6.33%	-5.95%	-19.91%

The data and calculations were derived using Stock Analysis on Net's EBIT Financial Analyses Center for fiscal years 2010 and 2011. The companies represented include those with a significant positive LIFO Reserve for each fiscal year

Clearly displayed are the percentage differences included in the financial ratios from FIFO to LIFO. This indicates that the real economic value of these companies may not be reflected in the financial ratios listed above. The ratios most affected by the prolonged use of the LIFO inventory method are the current ratio and the net profit margin. Those two ratios are indicators of liquidity and profitability, respectively. Information about the company's LIFO Reserve is required to be reported in the 10-K at year end. It is unlikely that online stock reports, such as Montlyfool.com or Yahoo.com, will take the Reserve into consideration when making a completed ratio analysis available on their website. Low current ratio values suggest that companies may have trouble with paying current obligations. LIFO brings down the current

ratio from where it would be at FIFO for all five companies. The decreased current ratio may contribute to an increased risk premium included in the interest rate for financing.

Companies with a high LIFO Reserve materiality in their balance sheets may create a misguided valuation as online investors analyze their performance. By eliminating the LIFO Reserve, companies may enhance the efficiency of investors who may not give such consideration in their financial ratio analysis.

### Cost to Companies

Financial reform and pushes in legislation to eliminate the LIFO accounting method are underway. Companies who are affected should start anticipating the additional cash outflow from taxes. The taxes projected to be paid as estimated by the Obama Administration and the Joint Committee on Taxation amounted to \$45.87 billion and \$66.87 billion respectively. This cash outflow will occur in adjustments of a phase out period, perhaps as long as ten years.

A short-term operating analysis on the five noted companies will estimate the required funds needed to fund operations in 2011 and the tax liability under the three potential options. The data and calculations were derived using Stock Analysis on Net's EBIT Financial Analyses Center for the 2011 fiscal year. The companies represented include those with a significant positive LIFO Reserve for each fiscal year. Below are the estimated taxes that will fall due in 2011 assuming a 35 % tax bracket.

**Table 3.** Five Companies Tax Liability Under Three Scenarios (In \$MM)

	Taxes Due		
	No Deferral	4 Yr. Deferral	10 Yr. Deferral
Exxon Mobil Corp.	8,960	2,240	896
Chevron Corp.	3,159	790	316
Caterpillar Inc.	848	212	85
Dow Chemical Co.	387	97	39
Marathon Oil Corp.	26	6	3

The data and calculations were derived using Stock Analysis on Net's EBIT Financial Analyses Center for the 2011 fiscal year. The companies represented include those with a significant positive LIFO Reserve for each fiscal year

The year one tax liabilities are calculated based on the three potential deferment options of 10 years, 4 years, and no deferral. The table incorporates the 2011 LIFO Reserve for five different companies in which the Reserve is significant. A more detailed calculation of the tax liability is provided in Appendix I. It is important to take the tax outflow into consideration when forecasting how much financing will be needed to fund operations. In some cases the additional financing may not be needed as current cash flow levels may be enough to cover the tax bill. Provided in Table 4, is the additional cost of capital assuming a lump-sum tax payment and a full recovery of those cash flows through additional financing.

**Table 4.** Five Companies total cost of taxes and additional financing (In \$MM)

	Taxes Due	Cost of Capital*	Total Cost
Exxon Mobil Corp.	8,960.0	690.8	9,650.8
Chevron Corp.	3,158.8	331.7	3,490.4
Caterpillar Inc.	847.7	132.2	979.9
Dow Chemical Co.	386.8	68.3	455.1
Marathon Oil Corp.	25.9	3.8	29.7

\*The Weighted Average Cost of Capital (WACC) is used to calculate the cost of Capital

The data and calculations were derived using Stock Analysis on Net's EBIT Financial Analyses Center for the 2011 fiscal year. The companies represented include those with a significant positive LIFO Reserve for each fiscal year

The Weighted Average Cost of Capital (WACC) is calculated based on the weighted required rate of returns for equity, notes and loans payable and long-term debt. The WACC is appropriate because the amount to be reinvested in a project was at a similar risk or discount rate. Appendix A shows the calculation for the cost of capital. The estimated total cost uses 2011 values to estimate the WACC and taxes due. There is a significant cost to companies in addition their tax liability. A longer period of payments, such as the 10 years proposed under the Administration's 2012 Budget, will allow companies to plan operations to provide sufficient cash flows to pay the tax bill at year end. Proper planning could reduce the cost of capital by a small amount.

#### Effects on Economy

It is uncertain if, or at what time, LIFO will be disallowed by policy changes. The increasing balance in the reserve accounts and balance sheet distortions make reserve Rollover probable. As mentioned above, there is approximately half a trillion dollars in tax payments to be paid out by companies to the government. The October 2012 Federal Reserve Statistical Release document estimated a M1 money supply of \$2418.4 billion. (Federal Reserve Statistical Release, 2012) M1 is defined as a combination of "the sum of currency held by the public and transaction deposits at depository institutions." (Schwarz, n.d.) The two tax liability estimates under the IFRS convergence and the budget proposal amount to 1.90 percent and 2.77 percent of total M1 money supply, respectively. This is a significant amount and one which will tighten the current loose fiscal policy administered by the government. A tight fiscal policy usually results in higher interest rates for bonds. It is uncertain as to the degree to which interest rates

will be affected or if the Fed will engage in another round of quantitative easing to counteract the effects of Rollover. If monetary policy becomes tighter and companies require additional financing to cover these LIFO reserve tax payments, interest rate pressure will be created. This can adversely impact the economic recovery. That fact alone, given the present fragile economy, may indicate a reluctance to eliminate LIFO in the near future. Although the FASB has consistently indicated that their standards should be neutral, Congress may “insist” through political pressure, that this change be investigated thoroughly prior to implementation to buy some time for the economy to further heal.

### Conclusion

The path to the elimination of LIFO seems eminent. Companies using LIFO are swimming against the current of mandatory disallowance through IFRS convergence or passing of the budget proposal. The financial effects to the companies, the economy and financial markets are minimized through a longer period of tax allocation. Political incentive to disallow the LIFO accounting method is apparent. Companies should take a more proactive approach and work with legislation to request longer deferment of taxes in hopes of minimizing the financial effects. An increased time period of deferment would benefit more parties than just the companies making the principle change. It will be a thought-provoking journey to see the immediate and long-term effects this LIFO Reserve Rollover will have on companies and an uncertain economy.



## References

Barthold, T., & Schmitt, B. (2012). The Joint Committee on Taxation: Congress of the United

States. Retrieved on October 22, 2012 from

<https://www.jct.gov/publications.html?func=startdown&id=4413>

Coffee, D., Roig, R., Lirely, R., & Little, P. (2011). The Materiality of LIFO Accounting Distortions

on Liquidity Measurements. *Journal of Finance and Accountability*. Retrieved on October 22,

2012 at <http://www.aabri.com/manuscripts/09251.pdf>

Davis, H. (1982). History of LIFO. *Accounting Historians Journal* retrieved on October 13, 2012 at

[http://www.swlearning.com/accounting/skousen/int/company\\_news/08.pdf](http://www.swlearning.com/accounting/skousen/int/company_news/08.pdf)

Federal Reserve Statistical Release. (2012). Money Stock Measures. Retrieved on November 15,

2012 from <http://www.federalreserve.gov/releases/h6/current/>

Financial Accounting Standards Board. (2012). International Convergence of Accounting

Standards. Retrieved on October 22, 2012 at

<http://www.fasb.org/jsp/FASB/Page/SectionPage&cid=1176156245663>

Hall, J. & Aldridge, R. (2007). Changes in Accounting for Changes. *Journal of Accountancy*.

Retrieved on December 1, 2012 from

<http://www.journalofaccountancy.com/Issues/2007/Feb/ChangesInAccountingForChanges.htm>

Inflation Data. (n.d.). Retrieved on December 1, 2012 from

Internal Revenue Bulletin. (2008). Rev. Proc. 2008-52. Retrieved on October 22, 2012 from

[http://www.irs.gov/irb2008-36\\_IRB/ar09.html#d0e2252](http://www.irs.gov/irb2008-36_IRB/ar09.html#d0e2252)

Marcellan, M. (2009). A Guide Through IFRS for Small and Medium-Sized Entities (SMEs).

Retrieved on November 15, 2012 from [http://www.rsmi.com/attachments/aproved/rsm-](http://www.rsmi.com/attachments/aproved/rsm-international---service-literature/en/FINALIFRSforSMEs.pdg)

[international---service-literature/en/FINALIFRSforSMEs.pdg](http://www.rsmi.com/attachments/aproved/rsm-international---service-literature/en/FINALIFRSforSMEs.pdg)

Moody's Investors Service. (2010). Is the End of LIFO Near?

PwC. (2009). The Uncertain Future of LIFO. Tax IFRS Readiness Series. Retrieved on October 22,

2012 at [http://www.pwc.com/en\\_US/us/ifrs-tax-issues/assets/ifrs-lifo.pdf](http://www.pwc.com/en_US/us/ifrs-tax-issues/assets/ifrs-lifo.pdf)

Schwarz, A. (n.d.) What is the Money Supply: Library of Economics and Liberty. Retrieved on

November 15, 2012 from <http://www.econlib.org/library/Enc/MoneySupply.html>

Shaw, H. (2006). The Battle to Preserve LIFO. Retrieved on November 15, 2012 from

<http://www.cfo.com/article.cfm/7213052>

UIC. (n.d.). Retrieved on December 1, 2012 from

[http://www.uic.edu/classes/actg/actg516tr/Readings/Inventory/Big%20Oil's%20Accounting%](http://www.uic.edu/classes/actg/actg516tr/Readings/Inventory/Big%20Oil's%20Accounting%20Methods%20Fuel%20Criticism.htm)

[20Methods%20Fuel%20Criticism.htm](http://www.uic.edu/classes/actg/actg516tr/Readings/Inventory/Big%20Oil's%20Accounting%20Methods%20Fuel%20Criticism.htm)

U.S. Department of Treasury. (2012). General Explanations of the Administration's Fiscal Year

2012 Revenue Proposals. Retrieved on October 30, 2012 from

<http://www.treasury.gov/resource-center/tax-policy/Documents/General-Explanations->

FY2012.pdf

## Appendix A

Note: All data and calculations were derived using Stock Analysis on Net's EBIT Financial Analyses Center for the 2011 fiscal year. The companies represented include those with a significant positive LIFO Reserve for each fiscal year

## Five Companies Tax Liability Under Three Scenarios (In \$MM)

	No deferral	4 Yr. Deferral	10 Yr. Deferral
Exxon Mobil Corp.			
Taxes Due			
LIFO Reserve	25,600	6,400	2,560
Taxes Due (35% Tax)	8,960	2,240	896
Chevron Corp.			
Taxes Due			
LIFO Reserve	9,025	2,256	903
Taxes Due (35% Tax)	3,159	790	316
Caterpillar Inc.			
Taxes Due			
LIFO Reserve	2,422	606	242
Taxes Due (35% Tax)	848	212	85
Dow Chemical Co.			
Taxes Due			
LIFO Reserve	1,105	276	111
Taxes Due (35% Tax)	387	97	39
Marathon Oil Corp.			
Taxes Due			
LIFO Reserve	74	19	7
Taxes Due (35% Tax)	26	6	3

## Five Companies total cost of taxes and additional financing (In \$MM)

	Cost of Additional Capital in year one (in millions)		
	No deferral	4 Yr. Deferral	10 Yr. Deferral
Exxon Mobil Corp.			
Taxes Due	8,960.0	2,240.0	896.0
X WACC*	7.71%	7.71%	7.71%
Cost of Capital	690.8	172.7	69.1
Chevron Corp.			
Taxes Due	3,158.8	789.7	315.9
X WACC*	10.50%	10.50%	10.50%
Cost of Capital	331.7	82.9	33.2
Caterpillar Inc.			
Taxes Due	847.7	211.9	84.8
X WACC*	15.59%	15.59%	15.59%
Cost of Capital	132.2	33.0	13.2
Dow Chemical Co.			
Taxes Due	386.8	96.7	38.7
X WACC*	17.66%	17.66%	17.66%
Cost of Capital	68.3	17.1	6.8
Marathon Oil Corp.			
Taxes Due	25.9	6.5	2.6
X WACC*	14.61%	14.61%	14.61%
Cost of Capital	3.8	0.9	0.4

\*WACC is the Weighted Average Cost of Capital