CLAY TOKENS

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Deficiencies in GAAP/IFRS vis-a-vis Uniform Accounting

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Inflation - Investors' great fear is completely ignored by GAAP Accounting

Last month, we highlighted Warren Buffett and his distaste for GAAP and IFRS accounting standards.

This month, we turn to another all-time great value investor—the co-founder of legendary hedge fund Baupost Group, Seth Klarman—for his take on financial reporting deficiencies in general and the focus of this month's report… inflation—or more accurately, currency devaluation.

Over his career, Klarman has garnered many comparisons to the legendary Warren Buffett. Both are heads of really large and incredibly successful investing firms, both have amassed large followings, and both trace their investing education to the "father of value investing," Benjamin Graham.

For Buffett, Graham was a direct mentor as his professor at Columbia University. Klarman and Graham may not have crossed paths in person, however the influence is incredibly strong. In fact, Klarman titled his world-famous book, Margin of Safety, after a concept and title of Chapter 20 of Benjamin Graham's own work, The Intelligent Investor, which is considered by many to be the greatest book on investing to date.

Klarman's "Margin of Safety" touches on many crucial aspects of value investing—including its namesake. To wit, invest in assets where your likelihood and severity of loss is low given your purchase price.

In addition, Klarman writes in great length about the inadequacy of GAAP accounting metrics in conducting good financial analysis. He criticizes the use of popular valuation metrics such as as-reported book value and EPS.

He explains how corporate focus on these metrics and flexibility in accounting standards have opened the door to unproductive "earnings management." Meanwhile, he attacks GAAP standards for requiring "actions that do not reflect business reality."

For instance, when covering the issues with as-reported book value, Klarman claims that what something cost in the past is not always a good measure of current value. Nor is it an accurate representation of the basis off of which investors should be determining returns.

Deficiencies in GAAP/IFRS vis-a-vis Uniform Accounting

Klarman chastises GAAP for its inability to account for inflation—a topic that has come to the forefront of current economic discussion. He states, "inflation...among other factors, can affect the value of assets in ways that historical cost accounting cannot capture."

Since 1991, when Klarman published the book, it seems that the prices of nearly every good, from chewing gum, to furniture, to automobiles, property, and more, has skyrocketed.

While some of these items may have actually appreciated in value, anyone with a basic understanding of technological advancement would be shocked that the costs of basic goods would increase so dramatically.

In reality, the price of a kitchen table, for example, hasn't actually increased on a relative basis. It's just that the dollar has significantly depreciated in value.

100 dollars in 1991 is not the same as 100 dollars in 2021.

In fact, $100 in 1991 is worth around $200 today. So, investors and corporations who have "doubled their money" over the past 30 years aren't any better off today from a real return on investment or purchasing power perspective than they were back then.

Yet, due to historical cost accounting, GAAP completely ignores this currency issue. How then should users of the financial statements, including investors, compare companies that bought the same assets in different years?

Without adjusting major balance sheet items to today's dollar equivalent, firms with older assets will look far more profitable than equivalent peers with newer ones.

While currency devaluation is not much of an issue for current assets, whose short-term holding timeframe means they are usually worth close to carrying value, it can be a massive comparability problem for depreciating assets.

Consider a firm's property, plant, and equipment (PP&E), often one of the largest balance sheet items for many firms, especially for those in manufacturing and energy-related industries.

In GAAP accounting, PP&E is measured using historical cost, or the purchase price, and then depreciated from there. However, as currency depreciates in an inflationary environment, this treatment can significantly understate the cost of that asset compared to its updated cost using equivalent "dollar worth."

To currency-adjust these assets, we take into account a number of factors, including depreciation schedules, net-to-gross PP&E ratios, and depreciable life, to get a rough estimate of the age of a firm's depreciable assets. From there, we can adjust to current-day cost equivalents based on changes in relative dollar value.

Without adjusting for inflation, and adjusting to a constant-dollar basis, assets like these are completely understated year over year, which compounds tremendously over time.

As such, the firm's book value and valuations based off of assets or equity become completely distorted.

And this issue goes far beyond the balance sheet.

Inflation and the misrepresentation of depreciable assets on the balance sheet can build in "fake earnings" for a company. This is because companies are depreciating off much smaller asset bases than is accurate based on current dollar equivalents.

For example, a firm that bought a factory in 2005 will book a much smaller amount of depreciation than one that bought an identical factory in 2015.

When looking at what depreciation is supposed to measure, the reduction of value of an asset due to wear and tear, this flies in the face of common reasoning. Older assets, like a car or a machine, tend to break down much more frequently than newer models. The cost to maintain these actually increases over time. Eventually, they may need to be replaced altogether.

So not only can GAAP's disregard for inflation lead to lower-than-accurate assets, it can also lead to higher-than-accurate earnings by understating the cost for a firm to maintain its PP&E. As such, these accounting rules are a nightmare for investors, making it nearly impossible to compare firms against each other or over time.

There is a long line of long-lived, asset-reliant firms, from various sectors, where as-reported assets and earnings do not represent economic reality due to historical costs.

Deficiencies in GAAP/IFRS vis-a-vis Uniform Accounting

This month we highlight three companies, with significant PP&E balances, wherein the lack of common-dollar adjustments in GAAP severely limits the reliability of the firm's reported assets and earnings:

•Entergy, an electric utility company
•International Paper, a pulp and paper manufacturer
•Worthington Industries, a steel manufacturer

In the pages and charts below, we show the difference between as-reported GAAP gross and net PP&E and UAFRS-computed GDP deflator-adjusted PP&E alternatives. In addition, we show the difference between as-reported GAAP depreciation expense and UAFRS-based economic depreciation.

While all of the 130+ adjustments have been applied, we hone in on how these few line items in particular can create material deviations from economic reality.

In each case shown below, it's quite obvious the stock market does not and has not valued firms on GAAP earnings. These examples highlight just how bad the as-reported numbers are, from a database of more than 32,000 companies wherein Uniform Accounting and GAAP Accounting differences are shown.

The report name "Clay Tokens" comes from the earliest known form of accounting and bookkeeping and a foundation for tracking the earliest debits and credits. In this regard, Uniform Accounting is an attempt to get financial statements back to the foundations of the purpose of accounting… to be useful to the users of the accounting information. Clay Tokens is produced monthly by Valens Research on behalf of and for the UAFRS Advisory Council for Uniform Adjusted Financial Reporting Standards.

Deficiencies in GAAP/IFRS vis-a-vis Uniform Accounting

ETR – Entergy Corporation

Like most utilities, ETR has weak earnings power, but has seen improvements in recent years, with profitability rising from immaterial levels closer to historical averages (Exhibit 1a).

Reflecting this UAFRS-based earnings trend, the firm saw material stock price appreciation over the course of two years, a reward for improving fundamentals.

Meanwhile, GAAP earnings have shown little movement over this period, maintaining 2% levels, misleading investors into incorrectly believing the firm's performance rebound has been less consequential than accurate.

From 2018 up through the start of the pandemic, ETR share prices increased meaningfully, rising from just $80/share to over $130/share, an appreciation of about 60% (Exhibit 1b). That said, according to the market, ETR appeared to be a firm with fairly stable profitability, ranging at weak 2% levels, and not one with improving profitability trends that would warrant this stock market performance.

However, using Uniform Accounting, we can identify distortions such as a firm's asset base being understated due to the omission of inflation-related adjustments to the firm's property, plant, and equipment base. Relatedly, we can also identify the misstatement of the firm's true economic depreciation due to the oversimplification of depreciation rules (Exhibit 2c).

UAFRS-adjusted metrics paint a significantly different picture of ETR, where Uniform ROA more than tripled, remaining weak, but expanding from well under 1% to 2% levels, suggesting the firm's stock price appreciation may have been justified (Exhibit 1c).

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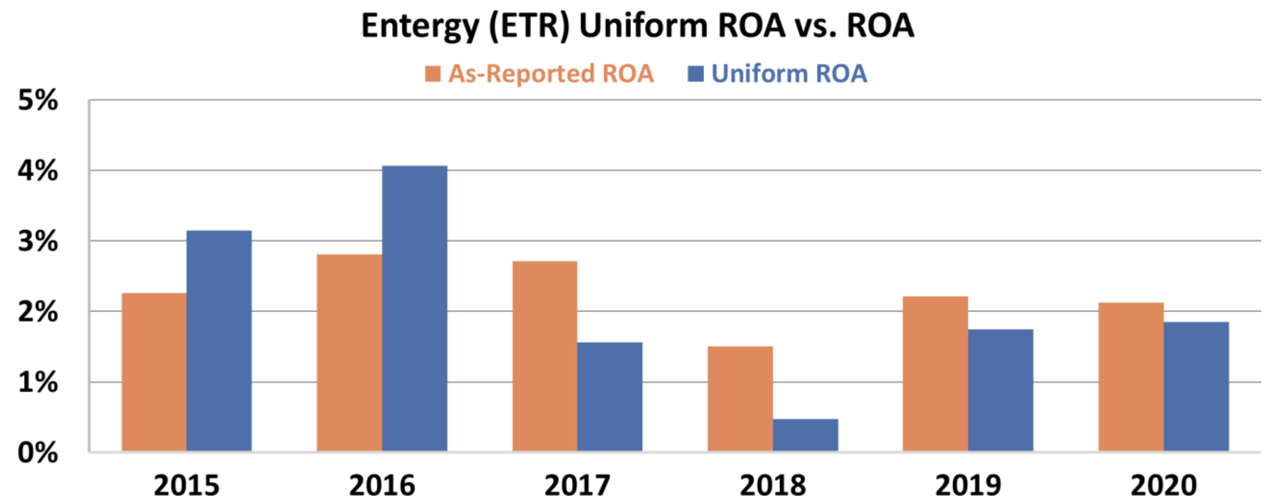
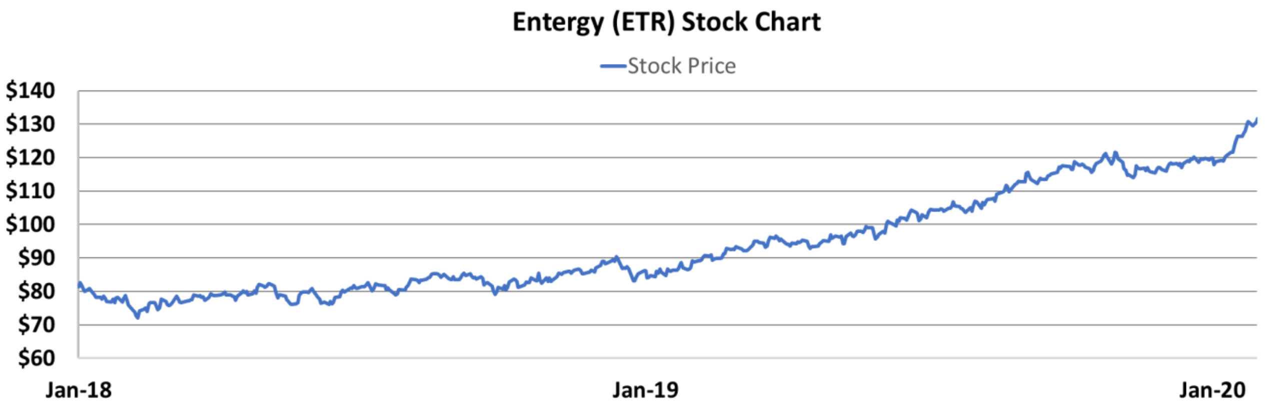
Deficiencies in GAAP/IFRS vis-a-vis Uniform Accounting

Exhibit 1a



Sources: UAFRS, CaptialIQ

Exhibit 1b



Source: CapitalIQ

Exhibit 1c

ETR - Entergy Corporation	2016	2017	2018	2019	2020
GDP Deflator Adjusted Gross PP&E	58,971.0	61,833.2	66,629.8	71,573.8	76,428.8
As-reported Gross PP&E	48,873.7	51,525.8	54,381.9	58,651.9	63,263.9
% Variance	-17.1%	-16.7%	-18.4%	-18.1%	-17.2%
GDP Deflator Adjusted Net PP&E	35,382.6	37,099.9	39,977.9	42,944.3	45,857.3
As-reported Net PP&E	28,155.0	29,925.3	32,278.8	35,515.6	39,196.1
% Variance	-20.4%	-19.3%	-19.3%	-17.3%	-14.5%
Economic Depreciation/ Adj. Maintenance Capex	2,326.1	2,396.2	2,299.9	2,336.1	2,481.1
As-reported Depreciation Expense	1,795.9	1,672.9	1,652.0	1,781.5	1,875.9
% Variance	-22.8%	-30.2%	-28.2%	-23.7%	-24.4%

*in USD millions

IP – International Paper Company

A cyclical company, IP's Uniform earning power moved in-line with end market demand, declining from near-peak levels in 2017 to recent lows in 2020 (Exhibit 2a).

Over that same time frame, the firm's stock price faded, moving in the same direction as its Uniform-calculated earnings and paper and pulp commodity cycles.

Meanwhile, GAAP earnings showed a firm that was able to maintain the same profitability in 2020 as in 2017, failing to explain the firm's stock price movements. As a result, these standards demonstrate a dislocation between economic reality and as-reported performance.

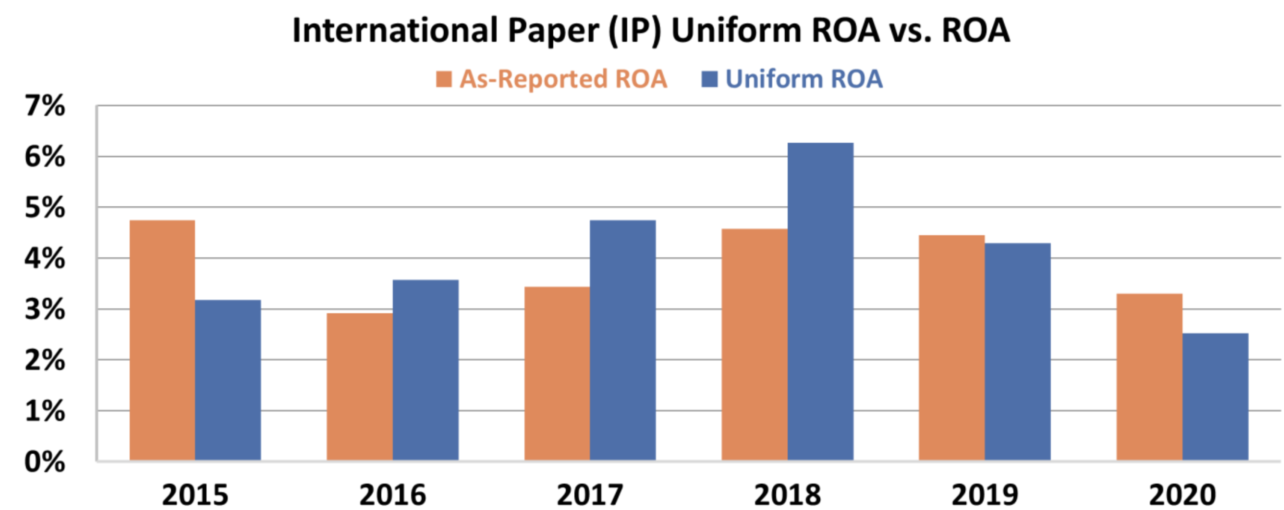
From the end of 2016 through 2021, **IP** shares saw a modest decline, fading from approximately $55/share to less than $50/share (Exhibit 2b). That said, according to the market, **IP** appeared to be a firm which actually saw minor profitability improvements over that timeframe, and not one with deteriorating performance that would justify the company's stock underperformance.

However, using Uniform Accounting, we can identify distortions such as a firm's asset base being understated due to the omission of inflation-related adjustments to the firm's property, plant, and equipment base. Relatedly, we can also identify the misstatement of the firm's true economic depreciation due to the oversimplification of depreciation rules (Exhibit 2c).

According to as-reported metrics, **IP** saw its ROA maintain 3%-4% levels from 2017 through 2020, well below the cost of capital. Meanwhile, UAFRS-adjusted metrics paint a significantly different picture of **IP**, where Uniform ROA declined from near cost-of-capital 5%-6% levels to under 3% over the same time frame, justifying the firm's stock price declines.

Deficiencies in GAAP/IFRS vis-a-vis Uniform Accounting

Exhibit 2a



Sources: UAFRS, CaptialIQ

Exhibit 2b

Source: CapitalIQ

Exhibit 2c

IP - International Paper Company	2016	2017	2018	2019	2020
GDP Deflator Adjusted Gross PP&E	43,442.0	45,841.4	45,708.3	45,497.8	46,409.6
As-reported Gross PP&E	32,707.0	34,262.0	33,963.0	34,341.0	34,365.0
% Variance	-24.7%	-25.3%	-25.7%	-24.5%	-26.0%
GDP Deflator Adjusted Net PP&E	26,065.2	27,504.8	27,425.0	27,298.7	27,845.7
As-reported Net PP&E	13,459.0	13,713.0	13,469.0	13,829.0	12,987.0
% Variance	-48.4%	-50.1%	-50.9%	-49.3%	-53.4%
Economic Depreciation/ Adj. Maintenance Capex	1,667.3	1,760.7	1,781.5	1,815.5	1,838.2
As-reported Depreciation Expense	1,124.0	1,343.0	1,200.0	1,200.0	1,200.0
% Variance	-32.6%	-23.7%	-32.6%	-33.9%	-34.7%

*in USD millions

WOR – Worthington Industries

Prior to 2020, when the firm faced pandemic-related headwinds, WOR's Uniform earning power had proven to be somewhat consistent, exceeding the cost-of-capital over the past several years (Exhibit 2a).

The firm's stock price generally reflected this stability in Uniform-calculated earnings from 2016-2019, with modest depreciation over that time period.

Meanwhile, GAAP earnings had been materially deteriorating over this time period. These earnings figures distort the economic reality of the firm's performance.

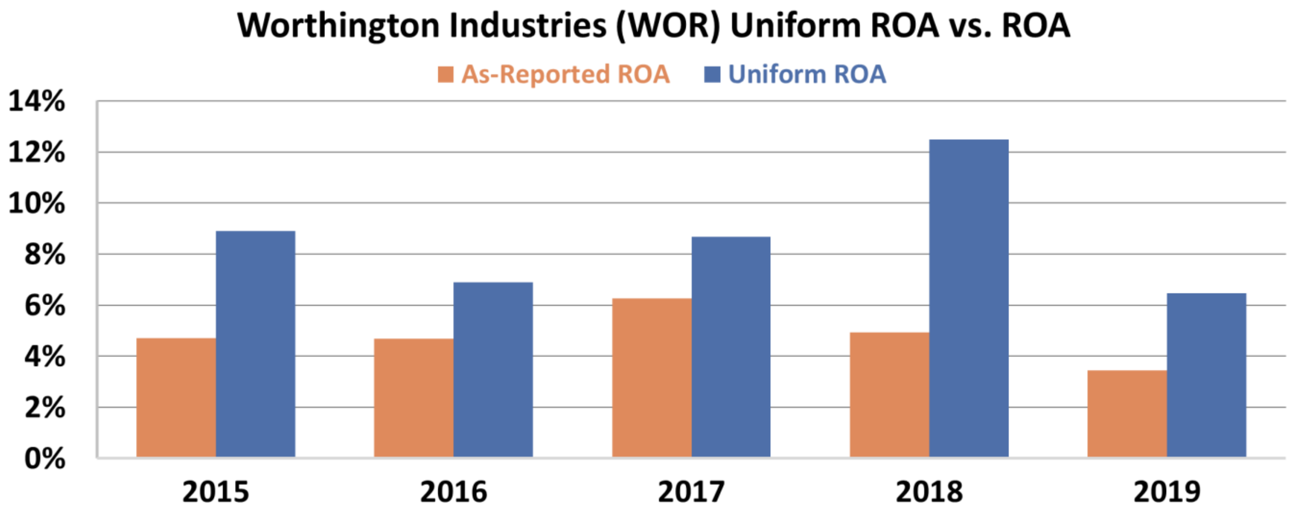
From the end of 2016 through the end of 2019, WOR share price saw a fairly immaterial decline, falling from approximately $47/share to near $42/share, representing just a 10% depreciation in value (Exhibit 2b). Yet, according to the market, WOR appeared to be a firm that warranted a more severe decline in stock price due to faltering fundamentals, and not one that, to that point, had managed to maintain its performance.

However, using Uniform Accounting, we can identify distortions such as a firm's asset base being understated due to the omission of inflation-related adjustments to the firm's property, plant, and equipment base. Relatedly, we can also identify the misstatement of the firm's true economic depreciation due to the oversimplification of depreciation rules (Exhibit 2c).

According to as-reported metrics, WOR saw its ROA decline from cost-of-capital levels in 2016 to just 3% in 2019. Meanwhile, UAFRS-adjusted metrics paint a slightly different picture of WOR, where Uniform ROA remained stable at slightly stronger 7% levels over the same timeframe, with just fractional declines, better explaining the rationale behind the firm's modest stock price decline (Exhibit 2c).

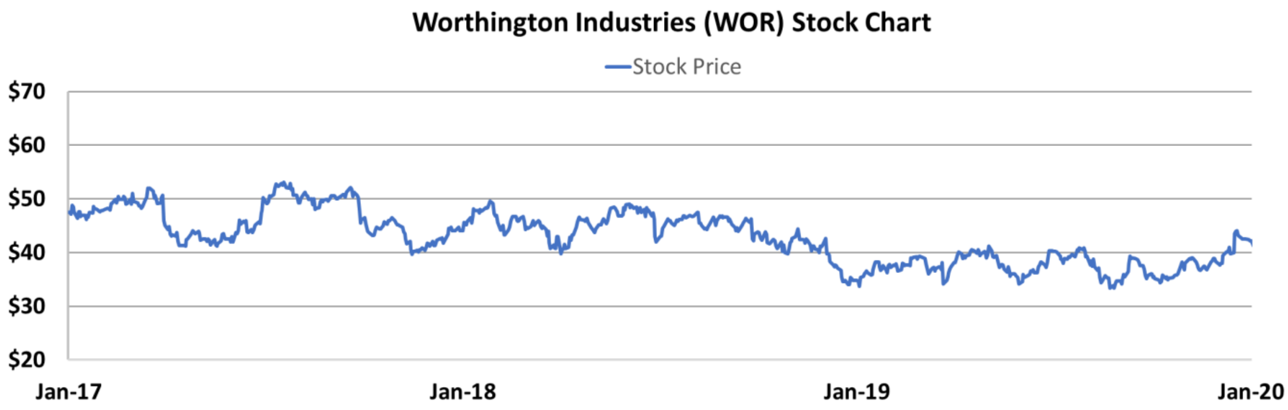
Deficiencies in GAAP/IFRS vis-a-vis Uniform Accounting

Exhibit 3a



Sources: UAFRS, CaptialIQ

Exhibit 3b



Source: CapitalIQ

Exhibit 3c

WOR - Worthington Industries, Inc.	2015	2016	2017	2018	2019
GDP Deflator Adjusted Gross PP&E	1,330.3	1,443.2	1,488.5	1,592.0	1,646.2
As-reported Gross PP&E	1,147.9	1,269.6	1,309.2	1,387.8	1,432.6
% Variance	-13.7%	-12.0%	-12.0%	-12.8%	-13.0%
GDP Deflator Adjusted Net PP&E	798.2	865.9	865.9	893.1	955.2
As-reported Net PP&E	513.2	582.8	570.5	585.0	578.7
% Variance	-35.7%	-32.7%	-34.1%	-34.5%	-39.4%
Economic Depreciation/ Adj. Maintenance Capex	91.2	95.8	96.9	105.0	110.0
As-reported Depreciation Expense	64.7	68.9	73.3	83.7	80.3
% Variance	-29.1%	-28.1%	-24.4%	-20.3%	-27.0%

*in USD millions

Deficiencies in GAAP/IFRS vis-a-vis Uniform Accounting

Definitions

Uniform Net Assets **–** Net Asset' is calculated as Net Working Capital + Long Term Non-Depreciating Operating Assets (including Land and Non-Depreciating Operating Intangible Assets, excluding Goodwill and other acquisition-related Intangible Assets) + Inflation-Adjusted Net PP&E + Net capitalized R&D + Net Capitalized Leases + Net Depreciating Operating Intangible Assets

Uniform ROA– UAFRS-adjusted ROA is a cleaned up Return on Asset ratio, used to understand the operating fundamentals of the company. UAFRS-adjusted ROA is Earnings' divided by Asset'.

Uniform Earnings is calculated as Net Income + Special Items + Interest Expense + Depreciation and Amortization Expense + R&D Expense + Rental Expense + Minority Interest Expense + Pension Charges + LIFO to FIFO adjustments + Stock Option Expense + Purchase Accounting Cash Flow Adjustments - Non-Operating (Investment) Income - Asset Life Based Charge on Depreciating Assets. Asset' is Net Asset', or Net Working Capital + Long-Term Non-Depreciating Operating Assets (including Land and Non-Depreciating Operating Intangible Assets, excluding Goodwill and other acquisition related Intangible Assets) + Inflation Net PP&E + Net Capitalized R&D + Net Capitalized Leases + Net Depreciating Operating Intangible Assets.

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