

DILIGENCE PAYS 11/21/19

Net Operating Profit After-Tax (NOPAT) & NOPAT Margin

For those looking for the best financial analysis ratios in the business, you've come to the right place.

Harvard Business School (HBS) and MIT Sloan show that our first-ever database of footnotes disclosures provides superior data for measuring "core earnings", a key element of NOPAT. See the Appendix of this paper for direct comparison of our analysis of NOPAT on a mega cap company to other major research providers.

We give you the financial due diligence needed to fulfill the Fiduciary Duty of Care.

Get the best fundamental research

Net operating profit after-tax (NOPAT) is the unlevered, after-tax operating cash generated by a business. It represents the true, normal and recurring profitability of a business. GAAP earnings or, even worse, non-GAAP earnings, are highly unreliable and are subject to misleading management manipulation.

As the numerator in our return on invested capital (ROIC) calculation, NOPAT is a very important value, and we place a great deal of importance on getting it right. Figure 1 provides the simplified formula for calculating NOPAT.

Figure 1: How to Calculate NOPAT - Simplified

Operating	Financing
Operating Revenue	Net Income
 Operating Expenses 	+ Adj. for Capitalized Expenses
Hidden Items	Adjusted Net Income
EBIT	+ Increase in Equity Equivalents
+ Goodwill Amortization	- Other Income
EBITA	+ Other Expenses
+ Adj. for Capitalized Expenses	- Hidden Items
+ Income Equivalents	+ Interest Expense After Taxes
NOPBT	NOPAT
 Cash Operating Taxes 	
NOPAT	

Sources: New Constructs, LLC and company filings

When we calculate NOPAT, we make <u>numerous adjustments</u> to close accounting loopholes and ensure apples-to-apples comparability across thousands of companies. A company shouldn't be able to hide its true performance, such as <u>hidden</u>, <u>unusual losses</u>.

Our new Robo-Analyst technology provides easy access to high-quality fundamental research. There's no reason for investors not to take advantage of best-in-class calculations of a firm's recurring profits, e.g. NOPAT. Figure 2 shows the level of rigor that goes into our NOPAT calculation for all companies. We use our Uber (UBER) model as an example.

Note all clients who subscribe to our <u>valuation models</u> get access to detailed analysis like that in Figure 2. Our models also offer access to all <u>our data in excel</u> and <u>audit-ability of all data</u> back to the original 10-Ks and 10-Qs upon which our models are built.

¹ HBS features our technology, the **only** technology that brings material footnotes data to investors, in the case study: "New Constructs: Disrupting Fundamental Analysis with Robo-Analysts."



Figure 2: How to Calculate NOPAT - Detailed

Uber Technologies Inc. (UBER)

Analyst Notes: New 10-Q & Forecast 11/6/19 | Added to the Focus List (Short) Model Portfolio Aug 2019

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Values in Millions except per share amounts	2017	2018
Net Operating Profit After-Tax (NOPAT)-Operating Approach		
Operating Revenues		
Net Sales Revenue	\$7,932.00	\$11,270.00
Net Interest Income	\$0.00	\$0.00
Total Revenue	\$7,932.00	\$11,270.00
Operating Income		
Income from Unconsolidated Subsidiaries After-tax (operating)	\$0.00	(\$42.00)
Total Operating Income	\$0.00	(\$42.00)
Operating Expenses		
Cost of Sales	\$4,160.00	\$5,623.00
Gross Profit	\$3,772.00	\$5,647.00
Gross Margin	47.6%	50.1%
Selling	\$4,787.00	\$5,233.00
Research and Development Expense	\$1,201.00	\$1,505.00
Depreciation and Amortization	\$510.00	\$426.00
Other Operating Expense	\$1,354.00	\$1,516.00
Total Operating Expense	\$12,012.00	\$14,303.00
Net Non-Operating Expense Hidden in Operating Earnings	\$7.00	(\$4.00)
Asset Write-Downs Hidden in Operating Earnings	\$340.00	\$256.00
Total Net Non-Operating Expense Hidden in Operating Earnings	\$347.00	\$252.00
ESO Expense (Employee Stock Options)	0.0	0.0
Adjusted Total Operating Expenses	\$11,665.00	\$14,051.00
EBIT/EBT	(\$3,733.00)	(\$2,823.00)
Goodwill Amortization	\$0.00	\$0.00
EBITA/EBTA	(\$3,733.00)	(\$2,823.00)
Change in Total Reserves	\$0.00	\$0.00
Interest for PV of Operating Leases	\$104.93	\$104.93
Plug Override - NOPBT	\$0.00	\$0.00
NOPBT (Net Operating Profit Before Tax)	(\$3,628.07)	(\$2,718.07)
NOPBT Margin	(45.7%)	(24.1%)
Cash Tax Rate	0.0%	21.6%
Cash Operating Taxes	(\$0.00)	(\$586.29)
NOPAT (Net Operating Profit After Tax)	(\$3,628.07)	(\$2,131.78)

Sources: New Constructs, LLC and company filings

Breaking out each adjustment also allows us to reconcile reported GAAP net income with NOPAT. See Figure 3 for the reconciliation for UBER.



Figure 3: Adjustments to Reconcile GAAP Net Income to NOPAT: UBER

Uber Technologies Inc. (UBER)

Analyst Notes: New 10-Q & Forecast 11/6/19 | Added to the Focus List (Short) Model Portfolio Aug 2019

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Values in Millions except per share amounts	2017	2018	(Y/Y)*
Reconciliation of Net Income to Economic Earnings			
Income Statement Adjustments			
GAAP Net Income	(\$4,033.00)	\$1,938.00	\$1,938.00
Total Net Non-Operating Expense Hidden in Operating Earnings	\$347.00	\$252.00	\$252.00
Reported Net Non-Operating Expense	\$495.00	(\$4,345.00)	(\$4,345.00)
Change in Total Reserves	\$0.00	\$0.00	\$0.00
Goodwill Amortization	\$0.00	\$0.00	\$0.00
ESO Expense (Employee Stock Options)	0.0	0.0	0.0
Interest for PV of Operating Leases	\$104.93	\$104.93	\$104.93
Non-Operating Tax Adjustment	(\$542.00)	\$869.29	\$869.29
Net After-Tax Non-Operating Expense/(Income)	\$0.00	(\$951.00)	(\$951.00)
NOPAT (Net Operating Profit After Tax)	(\$3,628.07)	(\$2,131.78)	(\$2,131.78)

Sources: New Constructs, LLC and company filings

Figure 4 shows how we calculate NOPAT margin. NOPAT margin measures the amount of NOPAT generated from a firm's total operating revenue and provides insights into the operating efficiency of a business.

Figure 4: How to Calculate NOPAT Margin

NOPAT / Total Operating Revenue = NOPAT Margin

Sources: New Constructs, LLC and company filings





Figure 5 shows the companies with the most under/overstated GAAP earnings as compared to NOPAT in fiscal 2018.

Figure 5: Companies with Most Understated/Overstated Earnings in Fiscal 2018

Ticker	Name	NOPAT	GAAP Net Income	Misleading Earnings				
Most Understated Earnings								
GE	General Electric	\$7,184	(\$22,799)	\$29,983				
BRK.A	Berkshire Hathaway	\$22,622	\$4,021	\$18,601				
KHC	The Kraft Heinz Co.	\$4,614	(\$10,192)	\$14,806				
PTR	PetroChina Company	\$19,071	\$7,646	\$11,425				
PCG	PG&E Corporation	\$1,565	(\$6,851)	\$8,416				
Most Overstated Earnings								
PEP	PepsiCo Inc.	\$8,150	\$12,513	(\$4,363)				
AAPL	Apple Inc.	\$55,101	\$59,531	(\$4,430)				
TOSYY	Toshiba Corp	\$792	\$7,565	(\$6,773)				
AVGO	Broadcom Ltd	\$5,475	\$12,259	(\$6,784)				
ATLKY	Atlas Copco AB	\$1,818	\$11,827	(\$10,009)				

Sources: New Constructs, LLC and company filings. Only includes companies with positive NOPAT

Per Figure 5, Atlas Copco AB's (ATLKY) NOPAT is \$10 billion less than its reported GAAP earnings. Our NOPAT calculation for ATLKY can be seen here. The large disconnect between reported earnings and NOPAT stems from over \$10 billion in profit from discontinued operations recorded on the income statement in 2018. When calculating NOPAT, we remove all income and losses from discontinued operations as this income/loss will not recur in the future.

PepsiCo (PEP), Apple Inc. (AAPL), Toshiba Corp (TOSYY), and Broadcom (AVGO) also have significantly overstated GAAP net income after adjusting for non-operating expenses, expenses or income hidden in operating earnings, asset write downs, and more. You can see exactly how we reconcile Toshiba Corp's GAAP net income to NOPAT here.

On the other hand, General Electric's (GE) net income greatly understates its NOPAT. See our NOPAT calculation for GE here. In 2018, General Electric had \$3.5 billion in operating expense hidden in operating earnings and over \$1.8 billion in hidden write-downs, along with another \$22.1 billion in write-downs disclosed directly on the income statement. We remove each of these non-recurring items from our NOPAT calculation. To ensure profitability metrics aren't distorted, our models capture the after-tax value of write-downs in invested capital.

Berkshire Hathaway (BRK.A), The Kraft Heinz Co. (KHC), PetroChina Company (PTR), and PG&E Corporation (PCG) each reported GAAP net income that understated the true recurring profits of their business operations in fiscal 2018. However, understated earnings alone don't mean a stock is worthy of investment. Four stocks with the most understated earnings in Figure 5 receive a Neutral-or-worse rating.

Our models and calculations are 100% transparent because we want our clients to know how much work we do to ensure we give them the best earnings quality and valuation models in the business.

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Disclosure: David Trainer and Kyle Guske II receive no compensation to write about any specific stock, sector, style, or theme.



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- Markets are inefficiently assessing earnings because no one reads the footnotes.
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- Our technology brings the material footnotes data to market for the first time ever.

Combining human expertise with NLP/ML/AI technologies (<u>featured by Harvard Business School</u>), we shine a light in the dark corners (e.g. footnotes) of hundreds of thousands of financial filings to unearth critical details.

The HBS & MIT Sloan paper, <u>Core Earnings: New Data and Evidence</u>, shows how our superior data drives uniquely comprehensive and independent debt and equity research.

This paper compares our analytics on a mega cap company to other major providers. The Appendix details exactly how we stack up.

Learn more.

Quotes from HBS & MIT Sloan professors on our research:

Get better research:

"...the NC dataset provides a novel opportunity to study the properties of non-operating items disclosed in 10-Ks, and to examine the extent to which the market impounds their implications." – page 20

Pick better stocks:

"Trading strategies that exploit cross-sectional differences in firms' transitory earnings produce abnormal returns of 7-to-10% per year." – Abstract

Avoid losses from using other firms' data:

"...many of the income-statement-relevant quantitative disclosures collected by NC do not appear to be easily identifiable in Compustat..." – page 14

Build better models:

"Core Earnings [calculated using New Constructs' novel dataset] provides predictive power for various measures of one-year-ahead performance...that is incremental to their current-period counterparts." – page 4

Exploit market inefficiencies:

"These results ... suggest that the adjustments made by analysts and Compustat to better capture core earnings are incomplete. Moreover, the non-core items identified by NC produce a measure of core earnings that is incremental to alternative measures of operating performance in predicting an array of future income measures." – page 26

Fulfill fiduciary duties:

"An appropriate measure of accounting performance for purposes of forecasting future performance requires detailed analysis of all quantitative performance disclosures detailed in the annual report, including those reported only in the footnotes and in the MD&A." – page 33-34





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