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DILIGENCE PAYS 11/21/19

Invested Capital: Explanation & Examples

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". See the Appendix of this paper for direct comparison of our analysis of Invested Capital 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

Invested capital equals the sum of all cash that has been invested in a company over its life with no regard to financing form or accounting name. It's the total investment in the business from which operating profit is derived.

As the denominator in our return on invested capital (ROIC) calculation, invested capital is a very important value, and we place a great deal of importance on getting it right.

We calculate invested capital in two mathematically equivalent ways: financing and operating approach. Figure 1 provides the simplified formula for calculating invested capital.

Figure 1: How to Calculate Invested Capital – Simplified

Financing	***Operating***
Short Term Debt	**Current Assets**
+ Long-Term Debt	– NIBCLS*
+ All Leases	**Net Working Capital**
Total Debt & Leases	+ Tangible Assets **
+Equity Equivalents	+ Intangible Assets
+ Common Equity	+ Other Assets
Invested Capital	**Invested Capital**

*** Non-Interest-Bearing Current Liabilities**
**** Includes leased assets**

Sources: New Constructs, LLC and company filings

When we calculate invested capital, we make numerous adjustments to close accounting loopholes and ensure apples-to-apples comparability across thousands of companies. A company shouldn't be able to hide from its history, for instance, through write-downs or impairments.

Our new Robo-Analyst[1] 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 invested capital. Figure 2 shows the level of rigor that goes into our invested capital calculation for all companies. We use our Dentsply Sirona (XRAY) model as an example.

Note all clients who subscribe to our valuation models get access to detailed analysis like that in Figure 2. Our models also offer access to all our data in excel and audit-ability of all data 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 Invested Capital – Detailed

Dentsply Sirona, Inc. (XRAY)

Analyst Notes : New 10-Q & Forecast 11/8/19 | Most Dangerous Stocks Model Portfolio Nov 2019

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Values in Millions except per share amounts	2015	2016	2017	2018
Invested Capital - Operating Approach				
Cash and Equivalents (non-operating)	$284.60	$383.90	$320.60	$309.60
Long-Term Investments (non-operating)	$0.00	$0.00	$0.00	$0.00
Total Cash and Investments	$284.60	$383.90	$320.60	$309.60
Required Cash as % of Revenue	5.0%	5.0%	5.0%	5.0%
Excess Cash	$150.88	$196.63	$120.93	$110.28
Required Cash	**$133.72**	**$187.26**	**$199.67**	**$199.31**
Accounts Receivable	$399.90	$636.00	$746.20	$701.90
Inventory	$340.40	$517.10	$623.10	$598.90
LIFO Reserves	$6.60	$6.80	$10.60	$10.20
Inventory Reserves	$36.30	$37.50	$71.70	$92.50
Other Current or Investment Assets	$101.40	$173.50	$312.60	$277.60
Total Current Assets (adjusted)	**$1,018.31**	**$1,558.16**	**$1,963.87**	**$1,880.41**
Accounts Payable	$133.60	$223.00	$284.40	$283.90
Accrued Restructuring Charges	$35.40	$27.40	$60.30	$43.40
Current Deferred Revenue	$2.20	$14.10	$8.90	$29.30
Other NIBCL or Investment Liabilities	$292.70	$485.40	$570.80	$564.30
NIBCL (Non-Interest-Bearing Current Liabilities)	**$463.90**	**$749.90**	**$924.40**	**$920.90**
Plug Override - Net Working Capital	$0.00	$0.00	$0.00	$0.00
Net Working Capital/Net Investment Assets	**$557.51**	**$811.66**	**$1,039.47**	**$959.51**
Net Property	$558.80	$799.80	$876.00	$870.60
Goodwill, net	$1,987.60	$5,952.00	$4,539.20	$3,431.30
Net Other Intangibles	$600.70	$2,957.60	$2,800.70	$2,420.30
Unconsolidated Subsidiary Assets (operating)	$0.00	$0.00	$0.00	$0.00
Other Fixed Assets	$59.10	$64.10	$156.10	$76.80
Off-Balance-Sheet Operating Leases	$84.97	$117.45	$128.32	$128.58
Asset Write-Downs After Tax	$295.55	$298.23	$1,887.76	$3,035.62
Accumulated Unrecorded Goodwill	$0.00	$0.00	$0.00	$0.00
Accumulated Goodwill Amortization	$80.10	$80.10	$80.10	$80.10
Accumulated OCI (Other Comprehensive Income), Including Quarterly Estimates	$594.00	$705.70	$291.00	$478.70
Over Funded Pensions	($0.00)	($0.00)	($0.00)	($0.00)
Plug Override - Total Adjusted Fixed Assets	$0.00	$0.00	$0.00	$0.00
Total Adjusted Fixed Assets	**$4,243.91**	**$10,952.18**	**$10,715.37**	**$10,503.40**
Invested Capital	**$4,801.43**	**$11,763.84**	**$11,754.84**	**$11,462.92**
Average Invested Capital	**$4,884.68**	**$10,503.07**	**$11,942.96**	**$11,517.13**

Sources: New Constructs, LLC and company filings

Breaking out each adjustment also allows us to reconcile reported total assets with invested capital. See Figure 3 for the reconciliation for XRAY.

Figure 3: Adjustments to Reconcile Total Assets to Invested Capital: XRAY

Dentsply Sirona, Inc. (XRAY)

Analyst Notes : New 10-Q & Forecast 11/8/19 | Most Dangerous Stocks Model Portfolio Nov 2019

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Values in Millions except per share amounts	2015	2016	2017	2018
Balance Sheet Adjustments				
Total Assets (unadjusted)	$4,402.90	$11,656.10	$10,374.50	$8,687.00
Excess Cash	$150.88	$196.63	$120.93	$110.28
NIBCL (Non-Interest-Bearing Current Liabilities)	$463.90	$749.90	$924.40	$920.90
Total Reserves	$42.90	$44.30	$82.30	$102.70
Total Reported Operating Lease Assets	0.0	0.0	0.0	0.0
Off-Balance-Sheet Operating Leases	$84.97	$117.45	$128.32	$128.58
Total Discontinued Operations Assets	0.0	0.0	0.0	0.0
Accumulated Goodwill Amortization	$80.10	$80.10	$80.10	$80.10
Accumulated Asset Write-Downs After-Tax	$295.55	$298.23	$1,887.76	$3,035.62
Accumulated Unrecorded Goodwill	$0.00	$0.00	$0.00	$0.00
Total Reported Deferred Tax Assets	70.4	172.1	0.0	0.0
Hidden Deferred Tax Assets Less Current Deferred Tax Liabilities	13.8	19.4	43.8	18.6
Total Reported Deferred Compensation Assets	0.0	0.0	0.0	0.0
Hidden Deferred Compensation Assets Less Current Deferred Compensation Liabilities	0.0	0.0	0.0	0.0
Over Funded Pensions	($0.00)	($0.00)	($0.00)	($0.00)
Accumulated OCI (Other Comprehensive Income), Including Quarterly Estimates	$594.00	$705.70	$291.00	$478.70
Plug Override - Net Working Capital	$0.00	$0.00	$0.00	$0.00
Plug Override - Total Adjusted Fixed Assets	$0.00	$0.00	$0.00	$0.00
Invested Capital	$4,801.43	$11,763.84	$11,754.84	$11,462.92
Average Invested Capital	**$4,884.68**	**$10,503.07**	**$11,942.96**	**$11,517.13**

Sources: New Constructs, LLC and company filings

Figure 4 shows the companies with the most under/overstated reported total assets as compared to invested capital in fiscal 2018.

Figure 4: Companies with Most Understated/Overstated Assets in Fiscal 2018

Ticker	Name	Invested Capital	Total Assets	Difference
Most Understated Total Assets (in $mm)				
PBR	Petroleo Brasileiro S.A.	$424,510	$222,068	$202,442
PFE	Pfizer Inc.	$259,035	$159,423	$99,612
VIAV	Viavi Solutions, Inc.	$61,620	$2,023	$59,598
XOM	Exxon Mobil Corp	$401,319	$346,196	$55,123
COP	ConocoPhillips	$123,258	$69,980	$53,278
Most Overstated Total Assets (in $mm)				
BAC	Bank of America Corp	$332,020	$2,354,507	($2,022,487)
FMCC	Freddie Mac	$13,681	$2,063,060	($2,049,379)
HSBC	HSBC Holdings, PLC	$239,197	$2,558,124	($2,318,927)
JPM	JPMorgan Chase	$297,809	$2,622,532	($2,324,723)
MUFG	Mitsubishi UFJ Financial	$161,450	$2,828,232	($2,666,782)

Sources: New Constructs, LLC and company filings.

Petroleo Brasileiro's (PBR) invested capital is significantly higher than its reported total assets. Our invested capital calculation for PBR can be seen here. The $202 billion discrepancy stems from nearly $70 billion in operating leases, which we include in invested capital, $76 billion in accumulated asset write-downs, and $95 billion in accumulated other comprehensive loss.

Pfizer (PFE), Viavi Solutions (VIAV), Exxon Mobil (XOM), and ConocoPhillips (COP) are the other companies with the most understated reported total asset value. We believe transparency always helps investors, which is why all our calculations are visible throughout each company model. See the adjustments made to XOM's total assets here and our invested capital calculation here.

On the other hand, Mitsubishi UFJ Financial Group's (MUFG) invested capital is significantly lower than its reported total assets. See our invested capital calculation for MUFG here. The discrepancy between total assets and invested capital in fiscal 2018 stems from MUFG's $2.7 trillion in non-interest bearing current liabilities. Per Figure 1 above, we remove NIBCL's from our calculation of invested capital. Our calculation of MUFG's 2018 invested capital also takes into account $15 billion in operating leases and nearly $19 billion in accumulated asset write-downs.

JPMorgan Chase (JPM), HSBC Holdings (HSBC), Freddie Mac (FMCC), and Bank of America Corp (BAC) also have some of the most overstated reported total assets in fiscal 2018.

We focus on the economics of business, and, in the process, our models transcend the accounting loopholes and idiosyncrasies that make building good models difficult. 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.

This article updated on November 21, 2019.

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

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Combining human expertise with NLP/ML/AI technologies (featured by Harvard Business School), 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, Core Earnings: New Data and Evidence, 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.

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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:

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