Mint Batalha Value

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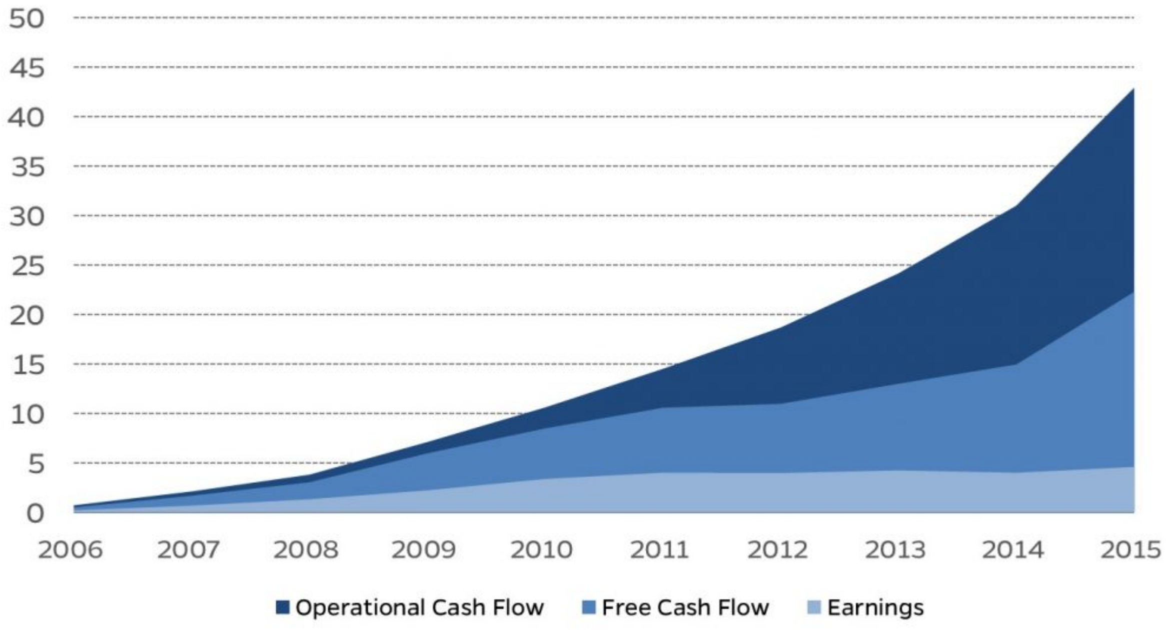
Summary

- Amazon generates much more cash than profits, given its cash-generating operating cycle and non-cash charges
- AMZN has been able to fund its massive growth with cash from operations, with almost no need to issue debt and equity
- Operational cash flow has grown much faster than earnings, which could be unsustainable over the long run
- However, trends in profitability and working capital efficiency, that drives most of its OCF, look in good shape
- AMZN's free cash flow to equity numbers have to be adjusted for capital leases and stock-based compensation
- But the company's earnings power, adjusted for maintenance capex and SG&A shows a much more profitable business than most people imagine
- Bezos's Capital allocation will continue to be tilted towards AMZN's businesses and growth
- Ultimately, that may minimize short term free cash flow, but we think should serve AMZN's shareholders and customers very well.

Amazon has become one the world's largest retailers in just 20 years. During this time, it has grown at over 30% per year but has yet to turn significant profits. Nevertheless, the company generates a lot of cash, which gets reinvested to generate even more sales and even more cash.

Cumulative Figures – 2006 to 2016 YTD - $B



Source: Batalha, Amazon's financials

How does Amazon generates more cash than profits?

While cash is cash, not all operational cash flow is created equal. Some firms pony up working capital to grow but generate operational cash flow due to healthy margins and unit economics. Nike, for instance, made $3.1 billion in cash flow in its in last fiscal year, after working capital consumed $1.6 billion. Net income reached $3.8 billion.

Amazon's OCF, on the other hand, stems in large part from its negative working capital and non-cash charges, not profitability. While it reported profits of U$0.6 billion in 2015, it generated an impressive $11.9 billion in operational cash flow.

What explains this huge gap? First, the company has a cash-generating operating cycle. Amazon turnover its inventory and collects from customers around 30 days before it pays out its suppliers[1]. Given the company's size, this small difference made the company $1.3 billion last year. As it is, the more it grows the more cash Amazon makes.

[1] Amazon converts inventory into sales in roughly 45 days and sales into cash within 18 days, a 63 days total. But only pays out its suppliers in approximately 85 days.

Amazon's another source of free working capital comes from Amazon Prime. When Prime members subscribe for an annual plan, they pay in advance to enjoy their subscriptions for the following twelve months. Hence, while AMZN books Prime's revenues at a 1/12 rate per month it receives cash almost 100% in advance[2]. In 2015, change in these customer advances (billed as unearned revenues), amounted to another $1.3 billion.

Two non-cash accounts explain the remainder of the difference between 2015's earnings and operational cash flow: both a $5.6 billion depreciation and amortization and a $2.1 billion stock based compensation add-backs. In this light, Amazon's fundamentals are much more attractive than its income statement leads us to believe.

Why does this matter? Amazon's strong OCF allowed it to grow with internally generated cash, with limited need to issue new stock, raise debt, or put up assets for sale. On top of that, the company has had a $15 billion change in its net cash position. The ability to grow this fast without depending on others is probably one of the main reasons (among others, obviously) many short sellers have burnt themselves.

Uses and Sources (Amazon) - 2006 to 2016 YTD[3] -$ mn

Uses		Sources	
Capex	25.655	Operational Cash Flow	42.912
Debt Repayment	4.708	Debt Issuance	11.100
Acquisitions	4.529	Equity Issuance	137
Purchase of Investiments	3.327	Other Sources	784
Buy-backs	1.837		
Total	**40.056**	**Total**	**54.933**
Net change in cash	**14.877**		

Source: Batalha, Amazon's filings

Operational cash flow has been by far Amazon's biggest cash source:

Amazon's Cash Sources – 2006 to 2016 YTD

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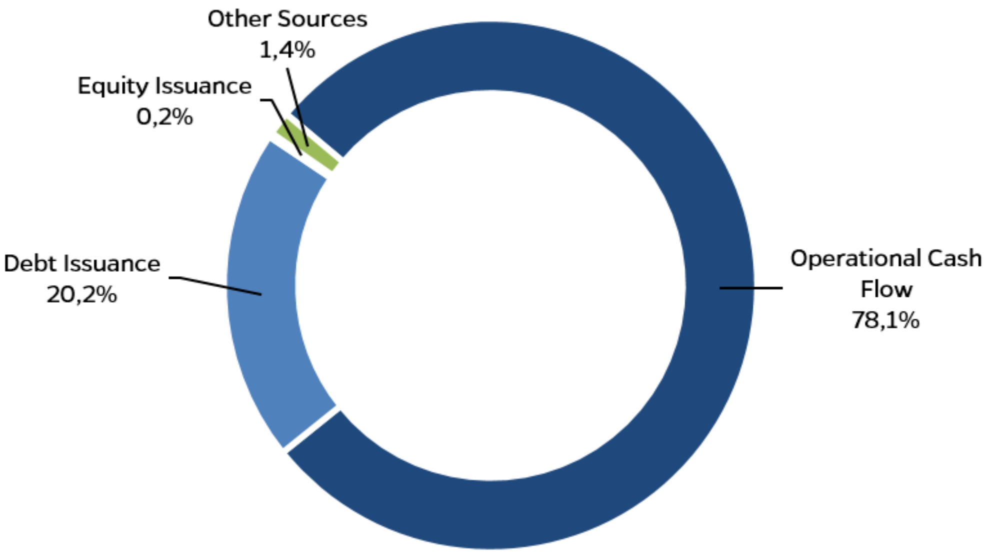
[2] Amazon also offer a monthly plan, which its costs $10.99 a month (33% more expensive than the annual plan)

[3] Capex includes Capital Leases Obligations payments (see explanation below)



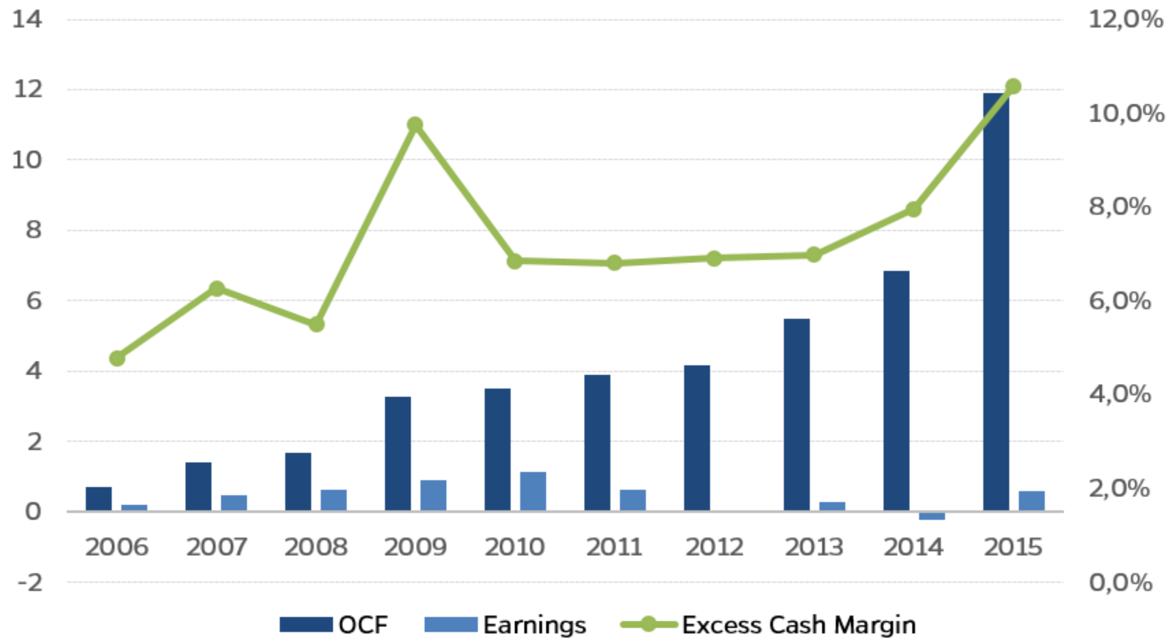
Source: Batalha, Amazon's filings

Because of AMZN's business model, growth in OCF has far eclipsed growth in earnings. We can measure this by using Excess Cash Margin (operational cash flow minus operating income/ sales). Because earnings are measured after depreciation and amortization and operating cash flow before depreciation and amortization, we expect companies to exhibit a positive ECM.

But, trends in ECM are equally important. While a declining ECM usually means a company's earnings are growing faster than its OCF, a growing ECM means a company is generating more cash unaccompanied by corresponding increase in profitability. Over extended periods, both are unsustainable.

On the declining ECM case, non-cash accounts must be eventually realized, increasing cash flow, or new liabilities accruals must be recorded, lowering earnings. Conversely, a growing ECM will eventually come down because assets cannot be reduced or liabilities increased forever.

Amazon's Excess Cash Margin – 2006 to 2016 YTD - $B



Source: Batalha, Amazon's filings

Although Amazon's ECM has been consistently positive it has more than doubled from 4.6% to 10.6% over the past ten years.

A stable ECM, with Operating Income and OCF growing in tandem, with few build out of accruals on the balance sheet, is usually the hallmark of a great business.

Is the relationship between AMZN's earnings and OCF sustainable?

To answer this question we must look both at profitability and working capital. On one hand, AMZN's profits seems to be rising as marketplace and AWS, both with much better margins than online retail[4], take a bigger share of total sales. Plus, both businesses require no inventory and little working capital.

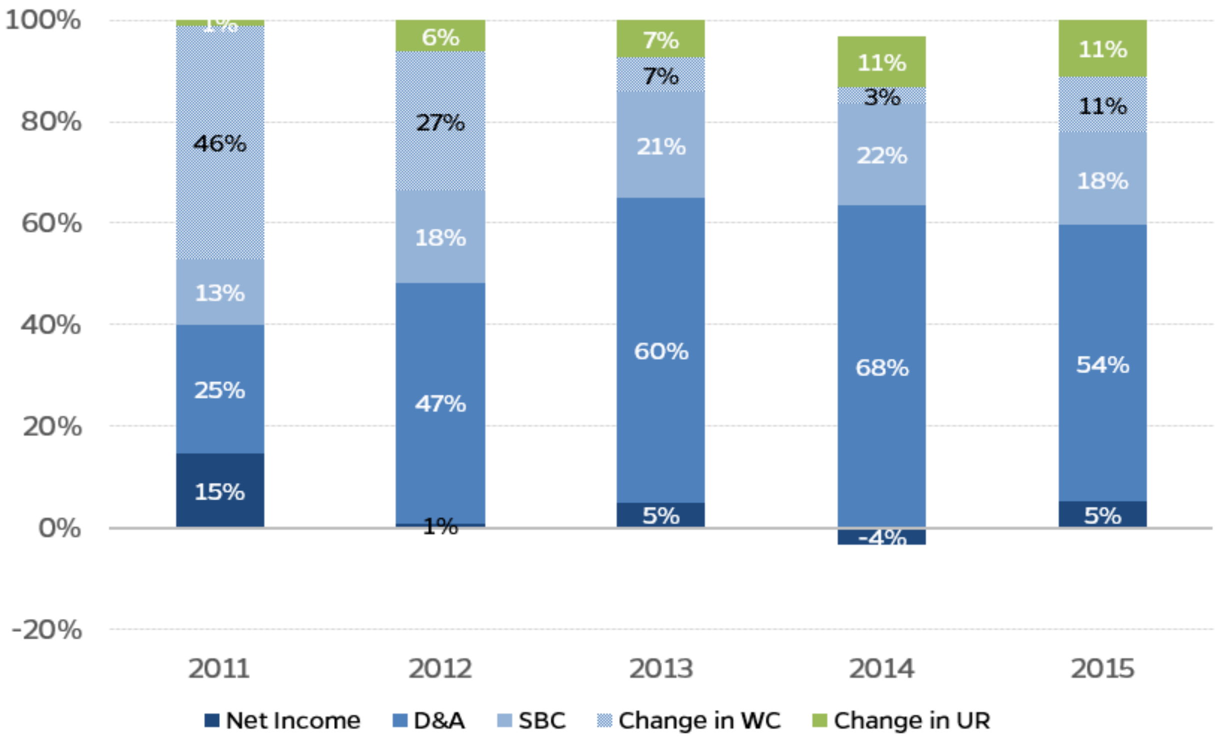
On the other, it seems Amazon will keep enjoying a cash-generating operating cycle. As it becomes a more important piece of both US and global retail, suppliers will increasingly depend on Amazon to sell their products. Most likely, Amazon will keep turning over inventory quickly and collecting from customers before paying out suppliers. Also, cash flow from Prime should keep flowing in as long

[4] We reckon theses businesses' gross margins can be as high as 80%, and will discuss on a future article.

as its membership base continues to grow. Finally, the firm's new investments in logistics and fulfillment, which includes building its own air fleet, can further reduce inventory and increase its working capital efficiency[5].

Therefore, trends in operational cash flow look in good shape. In fact, based on 2016 YTD results ($1.3 billion in net profit), we suspect Amazon's OCF will have an increasing profitability component and lower working capital one.

Operational Cash Flow Breakdown – %



Source: Batalha, Amazon's filings

How free is Amazon's free cash flow to equity?

Absolute dollar free cash flow is Jeff Bezos's favorite operating and valuation metric. Though plain accounting profitability maybe unable to explain Amazon's fundamentals, cash flow standalone, read as reported, can be quite misleading as well.

First, over the last few years, Amazon has boosted spending on fixed assets to support growth in both its technology infrastructure (mostly AWS) and fulfillment operations. It

[5] https://www.flexport.com/blog/amazons-new-jets-threat-to-fedex-and-ups/

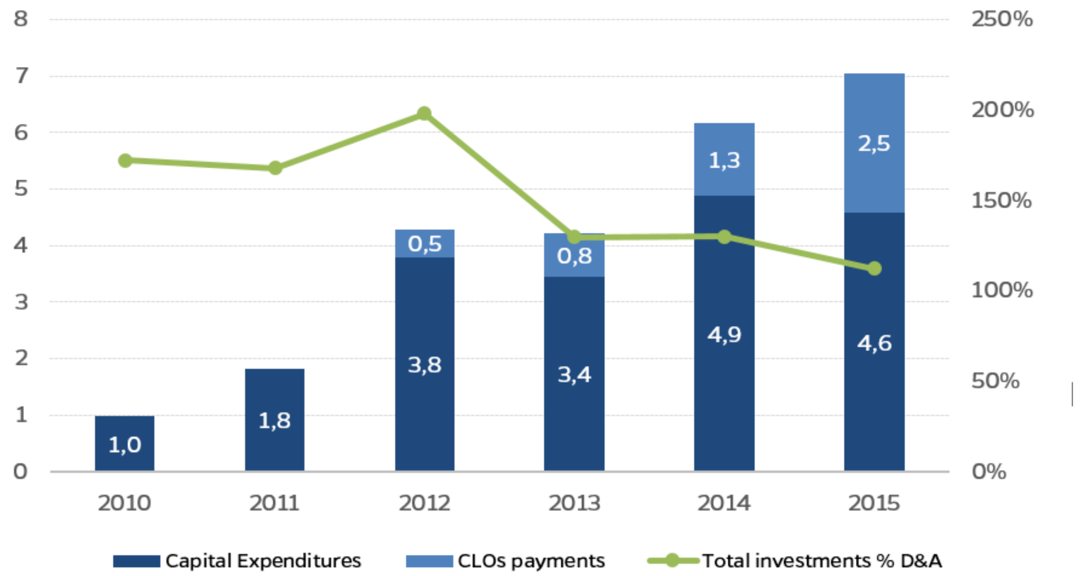
has both acquired assets with cash (Capex) and through leases (Capital Leases).

Because capital leases acquisitions are not paid outright with cash, Amazon has increasingly relied on them to grow its fixed asset base with less short term burden on its cash flow. Last year, of AMZN’s $7 billion investment in fixed assets, $2.5 billion were Capital Lease repayments.

Capital leases, nonetheless, means certain ownership criteria, such as transfer of ownership to the lessee at the end of the lease term, have been met. In addition, Amazon needs these investments to generate its revenues, like Capex.

Thus, to adjust free cash flow, we treat principal repayments of capital lease obligations (CLOs), which are indeed cash outlays (but not assets acquired under capital leases), as ordinary capital expenditures.

Amazon’s Capex and Capital Leases Payments - $B



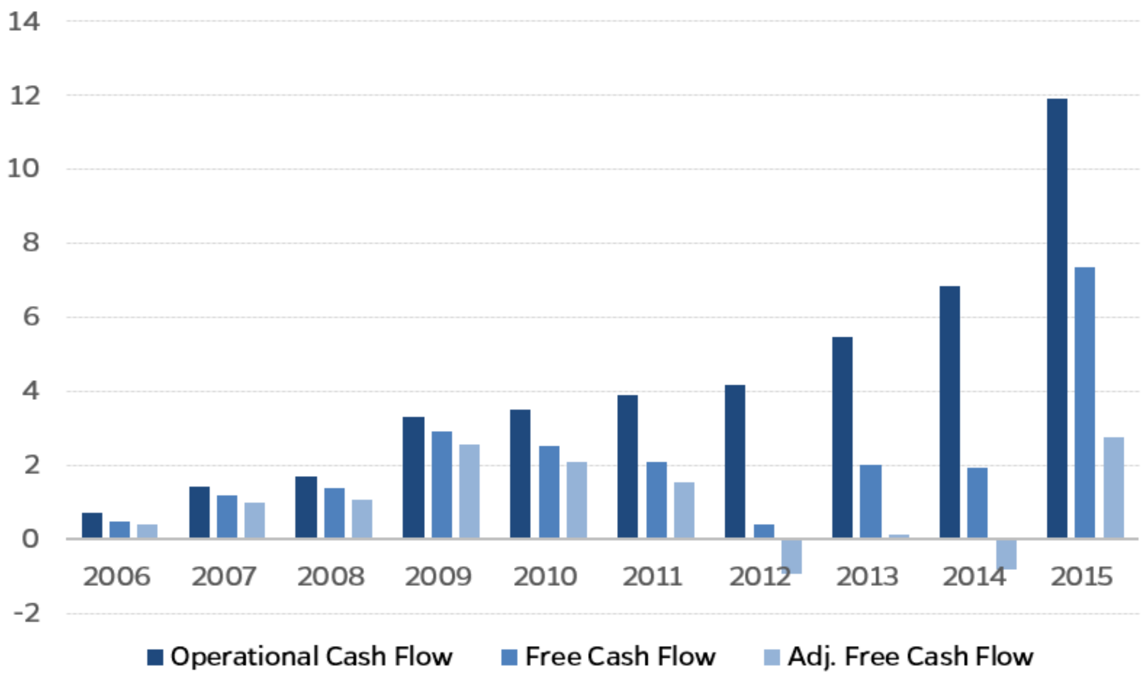
Source: Batalha, Amazon’s filings

In fact, Amazon’s total investments (capex plus capital lease obligations repayments) are now just over its annual depreciation and amortization expense.

In addition, we adjust for stock based compensation, treated as non-cash. We assume that the firm will engage in anti-dilutive buy-backs, by buying stock to keep equal the number of shares outstanding. Because the bulk of Amazon’s stock-based compensation are RSU’s, which are marked to market at the time of the grant and for the sake of simplicity, we assume that SBC expense recorded on the income statement is a cash outlay to buy-back stock at the open market[6].

Free Cash Flow metrics that do not incorporate these changes will likely overstate the firm's cash truly available to shareholders. In fact, when adjusted for leases and stock based compensation, 2015 free cash flow falls from $7.3 billion to a meager $2.6 billion.

Amazon's Cash Flow - $B



Source: Batalha, Amazon's filings

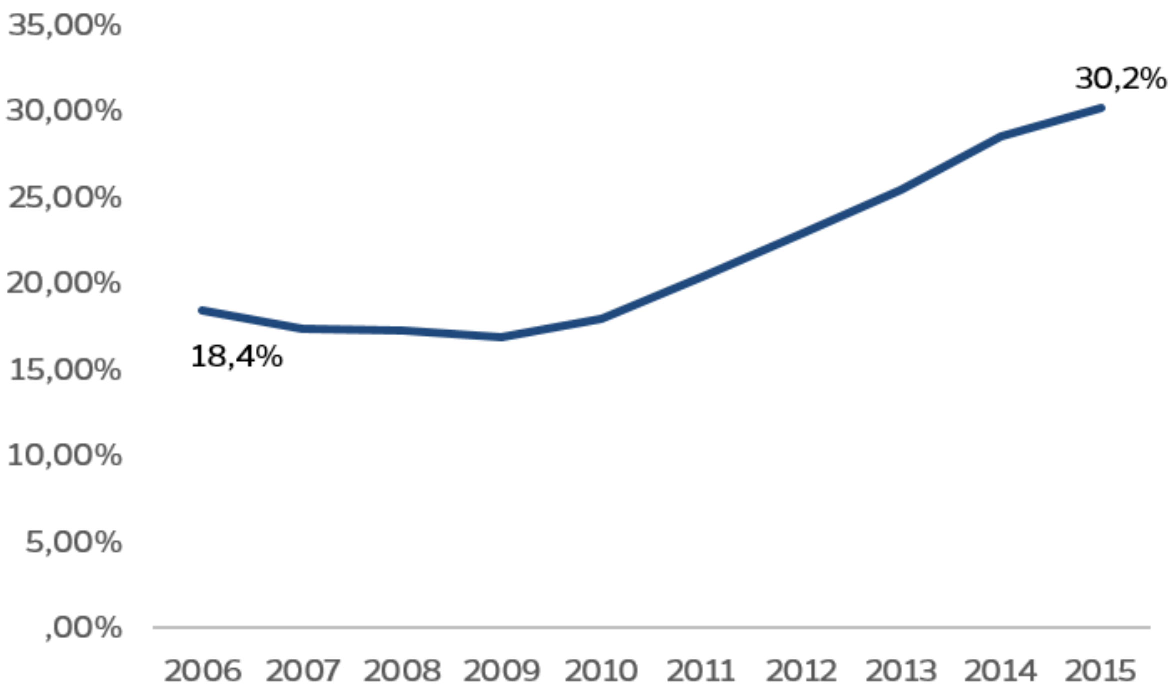
Now, because both of low profitability and free cash flow it is easy to conclude Amazon's businesses are neither profitable nor cash generating. That would be a big mistake.

First, although spending in buildings and equipment get most of the attention, a lot of AMZN's investments (product development, employee training, intangibles etc.) get buried in its operating expense. To grow, it not only has to invest in fixed assets but on SG&A (overhead, marketing, technology, R&D etc.). For instance, despite the massive revenue growth over the last ten years, SG&A expense has nearly doubled as a percentage of Sales (and is up fifteen

[6] Amazon has issued 51 million units in the past ten years. At the current share price, that represents over $ 38 billion in market value.

fold in nominal terms). In fact, current SG&A ($33 billion) is by far AMZN's biggest outlay and is roughly five times as large as total investment in fixed assets ($7 billion). To us, this is one of the most misunderstood aspects of the business.

SG&A % of Sales



Source: Batalha, Amazon's filings

Both Amazon's capex and SG&A figures include additional investments to support its massive growth; its maintenance capex and SG&A figures are certainly lower[7].

Given the company does not provide these numbers separately; we calculate growth capex and SG&A as follows:

[7] Media outlets have been quick to point how much cash some companies such as Uber are burning. But these firms are growing at an unprecedented pace and their operating expenses probably reflect that. Though they might be proven correct, it is impossible to assess these firm's cash generation without taking this into account and not knowing their unit economics.

Growth Capex and SG&A $m

(1) 2011 - 2015 avg. PP&E/ Sales	12,5%
(2) 2011 - 2015 avg. SG&A/ Sales	23,9%
(3) Increase in Sales (2015 - 2014)	18.018
(1 x 3) = Growth Capex	2.249
(2 x 3) = Growth SG&A	4.311
Total Investments 2015	7.052
(-) Growth capex	2.249
(=) Maintenance Capex (MCX)	4.803

In total, Amazon spent last year roughly $6.6 billion in growth.

So, what kind margin expansion and free cash flow would Amazon have if it stopped growing and both SG&A and Capex retreaded to steady-state, maintenance levels? Value investors usually do these adjustments to find normalized earnings and figure out how much growth is built into a company's market value.

Below our back-of-the-envelope calculations, using Greenwald's Earning Power Value:

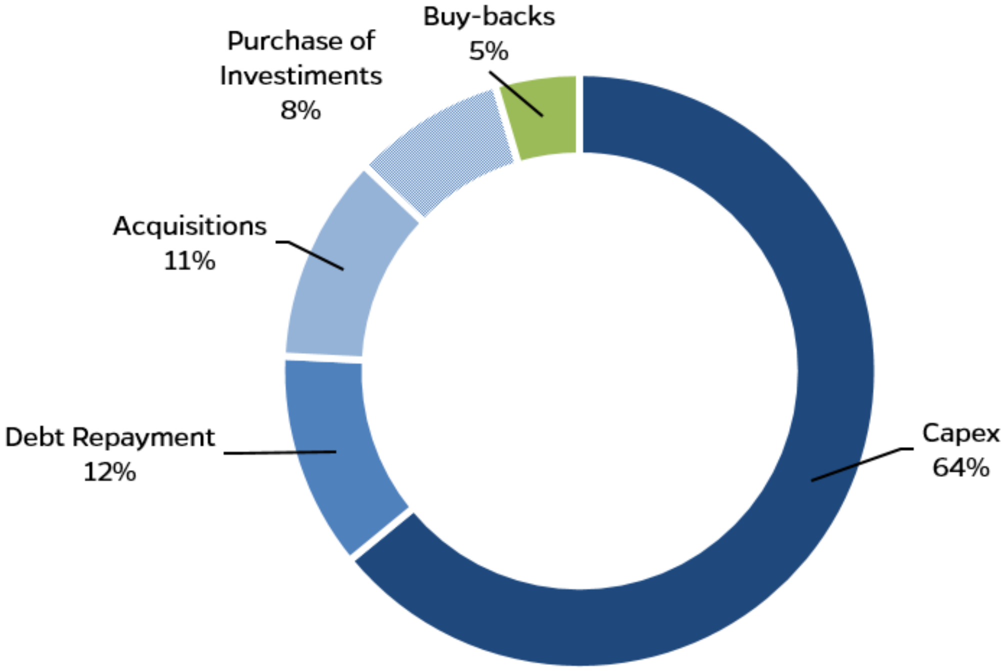
Amazon's Earnings Power		Comments
Revenues LTM	120.637,0	*trailing Revenues*
x avg. EBIT Margin (%)	3,3%	*averaged for the business cycle*
= Normalized EBIT	3.970,0	
+ SG&A add-back	4.311,5	*added back growth SG&A figure (see above)*
= steady-state EBIT	8.281,5	
- Income Taxes	2.580,2	*using average effective tax rate*
= steady- state NOPAT	5.701,3	
+ D&A	6.281,0	
- MCX (Maitenance Capex)	4.803,0	*deducts capex for maintenance purposes only*
= Earnings Power	7.179,2	

Turns out Amazon no-growth free cash flow is an impressive \$7.2 billion or a 6.0% margin over sales. It's a quite staggering figure considering Amazon's known for not making any money. Note that because it assumes zero growth, no changes in working capital, either positive or negative, are taken into account. And on AMZN's case, these changes were a \$2.6 billion source of cash in 2015. In sum, because of the growth required to support its new business opportunities, Amazon's current earnings and cash flow seem way understated.

Second, many commentators have pointed out to AMZN's less than stellar cash flow generation. Again, we think they are missing something. Bezos could put both feet on the breaks to slow growth and increase free cash flow numbers, but he certainly isn't trying to maximize short term cash flow. Though many of its initiatives fail, Amazon's use of cash has created shareholders a great deal of value. AWS, its marketplace, and Amazon Prime, Echo etc. were all developed within the company. In a world where many companies have scarce reinvestment opportunities (other than buying back stock near all-time heights). For a company like Amazon, redeploying cash is a good, if not desirable, thing. AWS alone, for example, could make \$2.5 billion in operating income in 2016. If we apply a conservative market multiple of 12x, that's \$30 billion in value (more than Amazon has spent on Capex over the last ten years).

That's why Bezos won't distribute cash anytime soon. Though past investments is no guarantee future bets will pay off, Capex should continue to expand as the firm searches for new businesses opportunities and beefs up its infrastructure. More importantly, operating expenses will grow as Amazon invests in R&D, hire more employees, launch new businesses, open new offices etc. If history is any guide, Amazon's capital allocation will continue to be deployed towards its businesses and growth opportunities (historically 75%).

Amazon's Uses of Cash - 2006 to 2016 YTD



Source: Batalha, Amazon's filings

To understand Amazon fundamentals a little better earnings, cash flow, and the company's growth phase must be taken into account.

Because of its business model, Amazon generates much more cash than earnings. Also, trends in profitability and working capital efficiency, that drives most of its OCF, look in good shape. Plus, profitability, which seems on the rise due to AWS and marketplace, could give Bezos's even more dry powder. And the company's earnings power, adjusted for maintenance capex and SG&A shows a surprisingly profitable business.

And as long as these drivers keep going, Amazon will likely keep generating the cash it needs to attract talent, invest in innovation and customer service, lower costs, and grow.

Amazon's flywheel doesn't look like it is going to stop.