

Facebook (FB) EQ Review- 6/18 Quarter

Current EQ Rating*	Previous EQ Rating
4-	NA

*For an explanation of the *EQ Review Rating* scale, please refer to the end of this report

We initiate coverage of Facebook (FB) with a 4- (Acceptable)

FB reported EPS of \$1.74 in the 2Q18, which beat forecasts by 3-cents. This was a considerably less than strong beat for a company that routinely has beaten forecasts by 10-36 cents per quarter for years. There are actually very few material issues in the basic accounting that concern us. The company doesn't have inventory, uses relatively quick depreciation/amortization lives, and receivables are not changing in a material way compared to sales. Compared to other FANG stocks, FB has strong free cash flow, essentially zero debt, huge cash reserves and has not been diluting shareholders.

Only three wildcards give much concern – tax assumptions, operating costs/capital spending rising faster than revenues and potentially squeezing margin, and foreign exchange.

- **Working capital trends are not problematic at FB.** The company is very liquid with large cash and securities balances and it is not only self-funding, free cash exceeds net income frequently.
- **Receivables are the only material working capital account and DSOs have been very flat.**
- **Discretionary costs are more likely to be a headwind.** FB enjoyed economies of scale in 2006 and 2007 as R&D and marketing costs as a percentage of sales declined, which fueled some huge earnings beats. The company is ramping up spending again and FB should see some margin pressure.

- **Capital spending is also rising rapidly which should cause depreciation to rise too.** Investing in the business and adding more safety and privacy features should be good in the long run, but the expenses may rise faster than revenues in the near-term.
- **A stronger dollar hurts FX translations.** With much of the assets and employees in the US and 58% of revenues from foreign countries, FB's revenue can move more with FX than costs. Historically this is a headwind, but is much larger in 2018 than 2017.
- **Taxes have several issues such as a higher stock price lowers the tax rate via stock-compensation becoming exercisable and vice versa along with transfer pricing or transaction splitting whereby FB allocates the revenue and costs of each transaction between the US and many foreign jurisdictions.** Both situations may be changed due to a court case and examination by taxing authorities.
- **Depreciation lives have increased about half-a-year** by our estimates and this has given FB a few cents in additional EPS. Amortization is falling as the assets are expensed rapidly and should continue to be a tailwind as well barring a new acquisition.

Working Capital Trends are Not Problematic

What is quickly obvious is Facebook is very liquid. Most of the current assets are cash and securities and even prepaid and other current assets include restricted cash-like deposits. There is no inventory and almost no payables. Accrued expenses consist of wages payable, purchase commitments, and tax benefits tied to foreign transaction splitting – more on this later.

	2Q18	1Q18	4Q17	3Q17
Cash	\$11,552	\$12,082	\$8,079	\$7,201
Mrk. Securities	\$30,757	\$31,874	\$33,632	\$31,088
Accts Receivable	\$5,590	\$5,115	\$5,832	\$4,424
Prepaid & Other	\$1,934	\$1,341	\$1,020	\$1,490
Current Assets	\$49,833	\$50,412	\$48,563	\$44,203
Accts Payable	\$419	\$593	\$380	\$383
Partners Payable	\$440	\$396	\$390	\$314
Accrued Exp & Other	\$3,720	\$4,003	\$2,892	\$2,503
Deferred Revenue	\$91	\$94	\$98	\$105
Current Liabilities	\$4,670	\$5,086	\$3,760	\$3,305

Marketable securities are mostly in US and US agency debt, so we do not see an issue there. Total cash and securities (\$42 billion) exceed total debt (\$11 billion which includes \$0 in borrowed debt) by nearly 4x. Moreover, FB does not have many of the problems of other FANG stocks. It is free cash flow positive – in fact, free cash flow often exceeds net income, so the company is not consistently raising capital. FB does not use capital leases, which effectively raises cash from operations and free cash flow because only the interest expense of the lease payment impacts those areas. It is self-funding and is even avoiding dilution from share-based compensation:

	2Q18	1Q18	4Q17	3Q17
Net Income	\$5,106	\$4,988	\$4,268	\$4,707
Cash Ops	\$6,299	\$7,860	\$7,670	\$6,128
Capital Exp	\$3,459	\$2,812	\$2,262	\$1,755
Acquisitions	\$16	\$49	\$17	\$98
Free Cash Flow	\$2,824	\$4,999	\$5,391	\$4,275
Share Count	2,930	2,945	2,954	2,956

The only non-cash material working capital account is Accounts Receivable. We are not seeing any trends that cause alarm here:

	6/30/2018	3/31/2018	12/31/2017	9/30/2017
Sales	\$13,231	\$11,966	\$12,972	\$10,328
Accounts Receivable	\$5,590	\$5,115	\$5,832	\$4,424
Sales YOY growth	41.9%	49.0%	47.3%	47.3%
Accounts Receivable YOY growth	43.4%	49.8%	46.1%	44.1%
Sales Seq growth	10.6%	-7.8%	25.6%	10.8%
Accounts Receivable Seq growth	9.3%	-12.3%	31.8%	13.5%
Accounts Receivable DSOs	38.6	39.0	41.0	39.1

	6/30/2017	3/31/2017	12/31/2016	9/30/2016
Sales	\$9,321	\$8,032	\$8,809	\$7,011
Accounts Receivable	\$3,897	\$3,415	\$3,993	\$3,070
Sales YOY growth	44.8%	49.2%	50.8%	55.8%
Accounts Receivable YOY growth	39.1%	45.4%	56.0%	52.7%
Sales Seq growth	16.0%	-8.8%	25.6%	8.9%
Accounts Receivable Seq growth	14.1%	-14.5%	30.1%	9.6%
Accounts Receivable DSOs	38.2	38.8	41.4	40.0

Discretionary Costs Should Be Margin Headwinds – FB Investing More

Many companies we review for earnings quality pick up 2-3 cents of EPS by cutting discretionary costs like R&D, marketing, or bad debt expense. We point these out because often these reductions are short-term and likely to bounce back and deny the company this source of earnings. FB is actually doing the reverse of this situation and has started to rapidly boost spending in these areas in dollar terms and as a percentage of sales:

	6/30/2018	3/31/2018	12/31/2017	9/30/2017
Sales	\$13,231	\$11,966	\$12,972	\$10,328
Research & Development	\$2,523	\$2,238	\$1,949	\$2,052
R&D % Sales	19.1%	18.7%	15.0%	19.9%
Marketing Expense	\$1,855	\$1,595	\$1,374	\$1,170
Marketing % Sales	14.0%	13.3%	10.6%	10.7%
Stock Comp % Sales	9.0%	8.0%	6.3%	9.8%
Capital Spending	\$3,460	\$2,812	\$2,262	\$1,755
CapX % Net PP&E	18.8%	17.3%	16.5%	14.4%

	6/30/2017	3/31/2017	12/31/2016	9/30/2016
Sales	\$9,321	\$8,032	\$8,809	\$7,011
Research & Development	\$1,919	\$1,834	\$1,563	\$1,542
R&D % Sales	20.6%	22.8%	17.7%	22.0%
Marketing Expense	\$1,124	\$1,057	\$1,118	\$926
Marketing % Sales	12.1%	13.2%	12.7%	13.2%
Stock Comp % Sales	11.1%	10.8%	9.4%	11.8%
Capital Spending	\$1,498	\$1,217	\$1,269	\$1,085
CapX % Net PP&E	14.1%	12.9%	14.8%	13.7%

The company had the perfect tailwind of gaining margin points from R&D, Marketing, and overall stock compensation (which also impacts COGS and G&A expense) in late 2017 both sequentially and year-over-year. This generated considerable earnings growth. 100bp of margin gain in 4Q17 was worth 4-cents per share and in just R&D and marketing, FB gained 480bp y/y or about 19-cents and the company beat forecasts by 26 cents.

As a tech company, FB does have to reinvent itself and those types of costs should be expected to rise. In fact, we would not be surprised if these costs continue to increase regardless of fluctuations in revenue growth and the normal seasonality in revenue that FB experiences. We think overall, this is a good thing for FB – R&D and Marketing should have a useful life for many quarters if not years. But, it looks to us as though investors should view 2017 as an aberration for margin gains and some headwind here is a more likely outcome.

	1H18	2017	2016	2015	2014
R&D % Sales	18.9%	19.1%	21.4%	26.9%	21.4%
Marketing % Sales	13.7%	11.6%	13.6%	15.2%	13.5%

The longer-term view shows this same issue. Obviously, the company was smaller in 2014 and 2015, but it has always actively invested in its business. There have been spikes in

spending like in 2015 and then some economies of scale in 2016 and 2017. But, it appears that investors should not be expecting a long-term situation of margin gains from having revenues grow faster than discretionary items. Some of the increases in costs are also coming from adding more security and privacy controls to the websites, which may be a selling point to customers, but doesn't directly add to revenues. That would cost FB some margin.

We also want to focus on the huge surge in capital spending. FB is spending heavily on data centers, network infrastructure, offices, and servers. Net PP&E has nearly doubled in the last year. Capital spending is expected to come in around \$15 billion in 2018 versus \$6.7 billion in 2017. Again, investing in the company and its assets is not a bad thing. But, 90% of fixed assets at FB are network equipment, which should have a short life, and buildings. The average life for assets at FB is about 5 years. So, this is another headwind that should impact earnings.

Depreciation has normally been about 7.5%-8.5% of sales. It was down to 6.6% in 4Q17 and is now back at 7.8%-7.9% in 2018 with the heavy spending. This again points to 4Q17 being an aberration in our view that enjoyed another 40-50bp of margin gain. We expect depreciation to become a headwind also.

Foreign Exchange Is a Wild Card

A large part of FB's revenue comes from outside the US. However, most of its fixed assets and wages are in the US. This helps income from outside the US become larger.

	1H18	2017	2016	2015
Rev % US	42%	44%	46%	47%
Rev % Non-US	58%	56%	54%	53%

	1H18	2017	2016	2015
PP&E in US	76%	76%	79%	79%
PP&E Non-US	24%	24%	21%	21%

	2017	2016	2015
Income % US	34%	51%	45%
Income % Non-US	66%	49%	55%

As a result, costs are more likely to be in US dollars and revenues in another currency. Generally, when the US dollar is strong, the translation of FX results in pressure on revenue while a weak US dollar helps reported revenue. FB uses an average rate over the period to translate revenues and expenses. This policy is fine in our view except for currencies seeing extreme devaluation such as Venezuela or Turkey. However, with exposure to nearly every country in the world, we do not have a problem with the translation policy.

FB nets interest income, interest expense and FX gains/losses under Other Income. It generally loses money on FX exchange, but the amount can vary. We noted in the Sealed Air report last week how many currencies had declined vs. the US dollar in 2018. This looks like another area where FB had a great year in 2017 followed by a headwind in 2018. FX is basically a 4-cent reduction in EPS for 1H18.

	1H18	2017	2016	2015
FX losses	\$123	\$6	\$76	\$66

Some of this is due to translating revenues back. However, while smaller than the US, there are still billions of dollars of FB assets overseas. At the end of June 2018, there was \$4.4 billion in net PP&E and \$14.0 billion of cash and securities overseas. Those assets are also getting converted at period end to US Dollars and a stronger dollar should reduce those values.

The bigger issue with all the foreign exposure is taxes in our view.

Taxes Have a Much Larger Variance at FB than other Costs

A great deal happened in 2017 with the new Tax Act lowering the US tax rate from 35% to 21%. As part of this rule, FB recognized a one-time transition tax provision of \$2.27 billion against accumulated foreign subsidiary income. This boosted the effective tax rate by 11-percentage points. The company also had greater share-based compensation tax benefits that lowered the effective rate by 6-percentage points. Lower tax rates in the US and a higher percentage of income in lower-tax foreign places helped lower the effective rate too. The result is a tax rate that varies quite a bit and is expected to see that again in 2018

	2018e	3q18e	2q18	1q18	2017	2016	2015
tax rate	15%-16%	23%	13%	12%	23%	18%	40%

When the stock price is rising, FB should have more stock issued as compensation vested and exercisable over the strike price. It recognizes a tax benefit during these times. So, a rising stock price gives the company more tax relief and a falling stock price effectively boosts their tax rate. In 2017, this shield cut the tax rate by 6-percentage points (\$1.25 billion) and in 2016 it was 7-percentage points (\$934 million.) Thinking of it in EPS terms, this was 42-cents of EPS in 2007.

It appears that with the stock price down after 2Q results, this will become more of a headwind for the rest of 2018. The company has guided to that. Also, the share-based tax shield may be falling further with a new court ruling.

“On July 24, 2018, the Ninth Circuit Court of Appeals issued an opinion in Altera Corp. v. Commissioner requiring related parties in an intercompany cost-sharing arrangement to share expenses related to share-based compensation. This opinion reversed the prior decision of the United States Tax Court. We are evaluating the opinion as it applies to our facts and circumstances and we currently expect it will increase our effective tax rate for the third quarter.”

FB noted in the 2Q call that it expects to record a one-time charge for this and that is why they expect at 23% tax rate for 3Q18. It remains to be seen if this will reduce future tax benefits.

The other big concern is transaction-splitting assumptions. Facebook has a considerable amount of revenue coming from overseas often in lower tax areas while at the same time much of the expense is in the US which may still have a higher tax rate some of the countries overseas. They have to allocate each deal in terms of revenue and expense by geography to arrive at income to pay taxes in each jurisdiction. Naturally, most governments want to maximize income in their jurisdictions and will look at things such as how FB makes its assumptions. When FB reports 76% of its assets and 42% of revenue are in the US, but only 34% of income, that creates a risk in our view for the IRS to examine and it appears that risk is already a potential as investigations are ongoing. From the FB 10-Q:

“We are subject to taxation in the United States and various other state and foreign jurisdictions. The material jurisdictions in which we are subject to potential examination include the United States and Ireland. We are under examination by the Internal Revenue Service (IRS) for our 2014 through 2016 tax years and by the Ireland tax authorities for our 2012 through 2015 tax years. Our 2017 tax year

remains open to examination by the IRS. Our 2016 and subsequent tax years remain open to examination in Ireland.”

“In July 2016, we received a Statutory Notice of Deficiency (Notice) from the IRS related to transfer pricing with our foreign subsidiaries in conjunction with the examination of the 2010 tax year. While the Notice applies only to the 2010 tax year, the IRS states that it will also apply its position for tax years subsequent to 2010, which, if the IRS prevails in its position, could result in an additional federal tax liability of an estimated, aggregate amount of up to approximately \$5.0 billion in excess of the amounts in our originally filed U.S. return, plus interest and any penalties asserted. We do not agree with the position of the IRS and have filed a petition in the United States Tax Court challenging the Notice. As of June 30, 2018, we have not resolved this matter, and proceedings continue in the United States Tax Court. In March 2018, we received a second Notice from the IRS in conjunction with the examination of our 2011 through 2013 tax years. The IRS applied its position from the 2010 tax year to each of these years and also proposed new adjustments related to other transfer pricing with our foreign subsidiaries and certain tax credits that we claimed. If the IRS prevails in its position for these new adjustments, this could result in an additional federal tax liability of up to approximately \$680 million in excess of the amounts in our originally filed U.S. return, plus interest and any penalties asserted. We do not agree with the positions of the IRS in the second Notice and have filed a petition in the United States Tax Court challenging the second Notice.”

This has the potential to be a multi-billion-dollar issue for FB. The company has plenty of cash on hand, and it added \$2.75 billion to its other liabilities account in 2017 to deal with tax uncertainties. That has been increased to \$2.79 billion at the end of June 2018. There is still a risk in our view of seeing less tax shield from changes to share-based compensation tax accounting and the potential to see income from the US become a larger percentage of pretax income and push up the tax rates.

Depreciation and Amortization Average Lives Appear to Be Rising

In recent years, the depreciation schedule for assets has increased asset lives, which should lower depreciation expense:

Years	2017	2016	2015
Networking Equipment	3-20	3-25	3-5
Buildings	3-30	3-30	3-30
Software, Office Eq, Other	2-5	2-5	3-5

We believe this is helping earnings slightly. We looked at the average gross PP&E that is depreciated. Thus, we excluded land and construction in progress at year-end. We compared the adjusted average gross PP&E to reported depreciation expense:

Years	2017	2016	2015
Adj Gross Avg. PP&E	\$11.88	\$7.91	\$5.75
Depreciation	\$2.33	\$1.59	\$1.22
Avg Asset Life	5.1 yrs	5.0 yrs	4.7 yrs

% adj Gross PP&E	2017	2016	2015
Buildings	34%	34%	34%
Network Equipment	55%	56%	55%

Essentially 90% of the assets being depreciated are buildings and network equipment. The building depreciation schedule didn't change in recent years and the percentage of assets in that area didn't change either. It looks like depreciation is not rising as fast as expected because networking equipment is being expensed over a longer period of time. It's still at the low-end of the estimated life range so that mitigates the concern. However, had 2017 still been working on a 4.7 average asset life instead of 5.1 years, depreciation would have been \$200 million higher. That would have cost FB about 5-cents in EPS for the full year. When it's beating by 10-30 cents per quarter, that's not a big deal. When it's beating by 3-5-cents, it becomes more meaningful.

Amortization of Intangibles does not appear to be a concern. With acquisitions, FB books assets of acquired users, technology, and patents. The level of acquisitions has been small in recent years. The remaining estimated useful life in years has been declining as expected:

Remaining life	% gross Intangibles	2017	2016	2015
Acq. Users	45%	3.8 yrs	4.8 yrs	5.7 yrs
Acq. Tech	21%	1.8 yrs	2.4 yrs	3.3 yrs
Acq. Patents	17%	5.1 yrs	5.0 yrs	4.7 yrs
Trade Names	14%	2.2 yrs	3.2 yrs	4.1 yrs
Other	4%	2.7 yrs	3.3 yrs	3.5 yrs

Total amortization dropped from \$751 million to \$692 million in 2017 vs. 2016. Gross intangibles are only \$4.6 billion so these accounts are being expensed rapidly. Most of them are seeing the remaining life drop by about 1-year each year so we are not concerned with this. If FB makes a meaningful acquisition, this expense will rise, otherwise, it should continue to fall. A \$50 million drop is about 2-cents in EPS. At the current run rate, this expense will be nearly gone in 3-years. Only \$1.5 billion net is on the balance sheet.

Goodwill is over \$18 billion due to large acquisitions several years ago. As noted in the first section, income and cash flow remain strong so we're not overly concerned of an immediate risk for a write-down in goodwill. It is always possible given rapid obsolescence in tech companies, but FB is accelerating its investment in the company via capital spending, R&D, and marketing. The risk here in our view would simply be the size of a write-down if one occurred given how large this balance is.

Conclusion:

It appears to us that 2017 was almost a perfect period for FB in that margins were rising by having discretionary costs increase more slowly than revenues, longer depreciation lives added to income, and FX was almost a non-event. We would view that as an aberration. History shows that FX is normally a headwind to EPS. The increased investment in Capital Spending, R&D, and marketing are probably a headwind for several more quarters but, may be a positive for EPS in the long term. Amortization is likely to erode more and will be a tailwind to EPS.

The biggest concern from an accounting perspective is taxes. The tax shield from stock compensation may fall due to the lower stock price and the recent court decision may also remove some of those benefits. Audits in the transaction splitting between foreign revenue and US expenses also have the potential to materially raise the income tax rate at FB.

Explanation of EQ Rating Scale

6- "Exceptionally Strong"	Indicates uncommonly conservative accounting policies to the point that revenue and earnings are essentially understated relative to the company's peers. Higher possibility of reporting positive earnings surprises
5- "Strong"	Indicates the company has no areas of concern with its reported results and we see very little risk of the company disappointing due to recent results being overstated from aggressive reporting in recent periods.
4- "Acceptable"	Indicates the company may have exhibited a minor "red flag", but the severity of the issue is not yet a concern. Minimal risk of an earnings disappointment resulting from previous earnings or cash flow overstatement
3- "Minor Concern"	Indicates the company has exhibited either a larger number of or more serious warning signs than companies receiving a 4. The likelihood of an immediate earnings or cash flow disappointment is not considered to be high, but the signs mentioned deserve a higher degree of attention in the future.
2- "Weak"	Indicates the company's recent reported results have benefitted materially from aggressive accounting. Follow up work should be performed to determine the nature and extent of the problem. There is a possibility that upcoming results could disappoint as the impact of unsustainable benefits disappears.
1- "Strong Concerns"	Indicates that the company's recent results are significantly overstated and that we view a disappointment in upcoming quarters is highly likely.

In addition to the numerical rating, the EQ Review Rating may also include either a minus or plus sign. A minus sign indicates that our analysis shows the overall earnings quality of the company has worsened since the last review and there is a possibility the numerical rating will fall should the problem continue into the next quarter. Likewise, a positive sign indicates that the overall earnings quality is improving, and the company may see an upgrade in its numerical rating should the trend continue.

Key Points to Understand About the EQ Score

The EQ Review Rating is much more than a blind, quantitative scoring method. While we utilize proprietary adjustments, ratios and methods developed over decades of earnings quality analysis, the foundation of all of our analysis is reading recent SEC filings, press releases, conference call transcripts and in some cases, conversations with managements.

The EQ Review Rating is not comparable to a traditional buy/sell rating. The Rating is intended to specifically convey the extent to which reported earnings may be over/understated. Fundamental factors such as forecasts for future growth, increasing competition, and valuation are not reflected in the rating. Therefore, a high score does not in itself indicate a company is a buy, but rather indicates that recent results are a good indication of the underlying earnings and cash generation capacity of the company. A low score (1-2) will likely result in us performing a more thorough review of fundamental factors to determine if the company warrants a full-blown sell recommendation.

Disclosure

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