

## Financial Technology 2018 Outlook

### Summary

Our best ideas for 2018 are WEX and SEI. We are also upgrading the shares of Mastercard to Buy from Neutral, and are increasing price targets for Visa, Mastercard, PayPal, Global Payments, TSYS, Square, Vantiv, SEI, and WEX. Finally, our outlook provides an overview of our estimated impacts of tax reform on our coverage universe, as well as our thoughts on each company for 2018.

### Key Points

**Our best ideas for 2018 are WEX and SEI.** In 2018, we view WEX as benefitting from continued organic acceleration, easier YoY comps, and one of the largest beneficiaries of tax reform within our coverage. They are entering 2018 with excellent momentum, including prospects to win the US Postal Service contract which is up for renewal this year. SEIC would be a beneficiary of an improving operating environment for U.S. banks. (e.g. higher rates, less regulation) as these firms represent one of the primary prospects for SEI's wealth management platform. We expect improved profitability among this prospect base to lead to higher rates of pipeline conversion. Lastly, prospects for SEIC having a "bad quarter" from higher than expected operating expenses has been reduced significantly as they are a major beneficiary of tax reform.

**Upgrading Mastercard to Buy from Neutral.** Improved economic conditions (including prospects for inflation) would benefit payment volumes and overall transactional activity, which increases our conviction in Mastercard generating high-teen EPS growth in FY18. We anticipate FY18 guidance to be low double-digit net revenue growth, and implied high teens EPS growth inclusive of buybacks.

**Tax reform thoughts.** We view the biggest beneficiaries of tax reform to be WEX, SEIC, and HAWK. In terms of the interest deductibility portion of the tax reform act, none of our companies under coverage are near the 30% EBITDA cap, and therefore headroom remains to take on incremental debt. **Our note provides our estimate of the potential EPS impact from tax reform, but we will wait to update our published estimates after management teams provide their assessment, which we expect will be during year-end earnings calls.**

**Our note provides company-specific thoughts on 2018, including our views on company's specific 2018 financial guidance.** Each of our company specific summaries include our current investment thesis for each stock and a look-back at 2017.

Company	Symbol	Price (1/03)	Prior	Rating Curr	PT
Blackhawk Network Holdings Inc.	HAWK	\$33.60	-	Neutral	\$36.00
Global Payments Inc.	GPN	\$101.71	-	Buy	\$115.00
Mastercard Incorporated	MA	\$153.82	Neutral	Buy	\$175.00
PayPal Holdings, Inc.	PYPL	\$76.75	-	Neutral	\$75.00
SEI Investments Company	SEIC	\$72.06	-	Buy	\$90.00
Square, Inc.	SQ	\$37.31	-	Buy	\$40.00
The Western Union Company	WU	\$19.07	-	U-P	\$16.00
Total System Services, Inc.	TSS	\$78.78	-	Neutral	\$85.00
Vantiv, Inc.	VNTV	\$74.32	-	Neutral	\$80.00
Visa Inc.	V	\$115.65	-	Buy	\$135.00
WEX Inc.	WEX	\$142.88	-	Buy	\$180.00

Source: Bloomberg and Mizuho Securities USA

**Thomas McCrohan**  
Managing Director, Americas Research  
+1 212 205 7857  
Thomas.McCrohan@us.mizuho-sc.com

**Leonard DeProspo, CFA**  
Vice President, Americas Research  
+1 212 209 9486  
Leonard.DeProspo@us.mizuho-sc.com

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## Best Picks 2018: WEX and SEIC

### WEX – Buy, PT \$180

**Executive Summary:** WEX enters 2018 with momentum and the advantage of better comparisons (e.g. fraud losses moderating + lapping contract renewal with OTA customer). The company is also a major beneficiary of tax reform. The company's fleet segment (~50% of total revenue) has witnessed an acceleration in organic revenue growth (to 14%) as a result of an enhanced offering resonating with prospective clients, evidenced by new business wins last year, such as Verizon that had a so-called mixed-fleet. We view the mixed-fleet offering as positioning WEX well to win additional business in 2018, including the US Postal Service contract that comes up for renewal in 2018 (incumbent is Voyager). The US Postal Service has gas-powered vehicles and a contract with third party independent truckers, which requires a fuel card that works at both local gas stations (mail delivery) as well as truck stops (for long haul truck delivery across state lines). In addition, WEX benefits from better comparisons in 2018: the company anniversaries the elevated fraud-losses within its fleet business, and the contract renewal with one of their largest OTA clients that in aggregate reduced 2017 EPS by at least \$0.50/share. All of these factors will likely result in an acceleration in EPS growth in 2018 on corresponding upward revisions to consensus estimates.

### SEI Investments – Buy, PT \$90

**Executive Summary:** SEI's new wealth management platform will likely begin to gain traction in the US banking marketplace now that Regions Bank is live on the platform, with TIAA CREF and Wells Fargo are in process of implementing. The US banking industry is in a much better position to begin investing in their internal infrastructure, and we view wealth management as critical technology infrastructure in dire need of an upgrade. SEI's wealth management platform provides cost savings and efficiency improvements to large banks seeking to consolidate onto one single platform, which can result in the elimination of dozens of legacy platforms that require costly integration. We also view SEI as a beneficiary of tax reform (~\$0.40/sh of EPS) which has the unexpected benefit of reducing the risk of SEI having a "bad quarter" this year from any uptick in operating expenses related to investment in this new platform. We view any rise in operating expenses to be an opportunistic use of excess capital related to tax-reform. The company has a history of generating highly attractive ROIC, has a solid balance sheet with zero debt, and a track record of returning capital to shareholders.

## Upgrading Mastercard to Buy

We are upgrading the shares of Mastercard to Buy from Neutral. We view Mastercard as being well positioned to generate high-teen EPS growth in FY18, and view improved economic conditions (including prospects for inflation) as resulting in an acceleration of payment volumes and transactions. We anticipate management will introduce FY18 guidance for net revenue to be in the low double digits, with ~10% operating expense growth; inclusive of buybacks, we view implied EPS guidance of high-teen EPS growth (company historically does not provide year-specific EPS guidance). High-teen EPS growth is in line with FY18 consensus expectations (pre tax reform benefits). Other potential positive factors to watch heading into FY18 include improved trends in US credit volumes as a result of the BofA portfolio win (new cash reward card for the mass affluent), expansion of Mastercard's digital wallet (called MasterPass), and growing contribution from value added service, such as security (tokenization) and account updater services which include Netflix as a recent customer.

## Changes to Price Targets and Estimates

We are increasing our price targets for all of our covered companies (with the exception of WU and HAWK), to reflect the rolling forward of the calendar year as well as the pro-forma impact of tax-reform. Those beneficiaries of tax-reform, notably WEX, SEIC, and HAWK, will likely witness upward revisions to their estimates, which we believe the market will value at the same multiple as operating earnings (we believe this has been the case to date).

In terms of estimate revisions, we have updated our estimates for WEX, MA and HAWK. WEX: we are tweaking our 2018 EPS estimate down by \$0.12/share to reflect higher operating interest expense on the receivables held on their balance sheet. MA: we are increasing our estimates to reflect an improved operating environment, including improved US credit volumes and a slight improvement in cross-border. HAWK: we are lowering our FY18 and FY19 estimates to reflect higher partner distribution expenses. We view the Kroger renewal as a material EPS headwind in 2018, and although we adjusted our estimates downwards to reflect Kroger back in December, we are lowering our estimates by \$0.05-\$0.08/share further.

**Exhibit 1: Changes to Ratings, Price Targets, and Estimates**

	Ticker	Market Cap		Prior			New									
				Rating	Price Target	EPS	Rating	Price Target	EPS	Growth						
		(in Mil)	Price			FY17E	FY 18E	FY 19E			FY17E	FY 18E	FY 19E	FY17E	FY 18E	FY 19E
Visa	V	\$258,544	\$114.47	Buy	\$120	\$3.48	\$4.05	\$4.70	NC	\$135	NC	NC	NC	22%	16%	16%
Mastercard	MA	\$160,230	\$152.20	Neutral	\$145	\$4.55	\$5.25	\$5.95	Buy	\$175	NC	\$5.31	\$6.15	21%	17%	17%
PayPal	PYPL	\$88,485	\$73.60	Neutral	\$64	\$1.89	\$2.30	\$2.70	NC	\$75	NC	NC	NC	26%	22%	17%
Global Payments	GPN	\$15,967	\$100.33	Buy	\$110	\$3.98	\$4.70	\$5.43	NC	\$115	NC	NC	NC	25%	18%	16%
Total System	TSS	\$14,619	\$79.52	Neutral	\$80	\$3.35	\$3.65	\$4.12	NC	\$85	NC	NC	NC	20%	9%	13%
Square	SQ	\$13,046	\$35.00	Buy	\$39	\$0.26	\$0.48	\$0.68	NC	\$40	NC	NC	NC	544%	82%	43%
Vantiv	VNTV	\$11,929	\$73.39	Neutral	\$75	\$3.34	\$3.70	\$4.17	NC	\$80	NC	NC	NC	22%	11%	13%
SEI	SEIC	\$11,316	\$72.20	Buy	\$72	\$2.34	\$2.82	\$3.27	NC	\$90	NC	NC	NC	15%	21%	16%
Western Union	WU	\$8,731	\$19.05	Underperform	\$16	\$1.67	\$1.60	\$1.67	NC	NC	NC	NC	NC	-3%	-4%	4%
WEX Inc	WEX	\$6,060	\$141.51	Buy	\$135	\$5.43	\$6.52	\$7.46	NC	\$180	\$5.42	\$6.40	\$7.50	17%	18%	15%
Blackhawk	HAWK	\$2,025	\$35.60	Neutral	\$36	\$1.66	\$1.92	\$2.28	NC	NC	NC	\$1.87	\$2.20	16%	13%	15%

Sources: Company reports, FactSet, MSUSA estimates

**Tax Reform and Our Estimated Impacts**

The majority of the management teams we spoke with in mid-late December believe they will see their effective tax rate decline albeit there are outliers who currently benefit from an unusually low tax-rate that will likely be adversely impacted by the new tax reform bill. All of the firms we spoke with needed additional time to fully digest the bill before providing any specific tax rate guidance. The table below depicts the pro-forma EPS impact on our 2018 EPS estimate assuming a blended effective tax rate of 25% for all our covered companies. Based on this analysis, the biggest FY18 EPS gainers by percentage impact to adjusted EPS are HAWK, SEIC, and WEX.

**Exhibit 2: Current Tax Rate Estimates vs 25% Tax Rate Assumption**

	Tax Rate	Est. EPS Impact	Magnitude of
	2018E	at 25% Tax Rate	EPS Impact
HAWK	37.0%	\$0.36	19%
SEIC	34.0%	\$0.38	14%
WEX	36.0%	\$0.67	11%
TSS	33.5%	\$0.45	9%
V	29.0%	\$0.23	6%
MA	28.0%	\$0.22	4%
GPN	27.0%	\$0.13	3%
SQ	14.7%	(\$0.01)	-1%
VNTV	19.0%	(\$0.27)	-7%
PYPL	18.5%	(\$0.18)	-8%
WU	14.0%	(\$0.20)	-13%

Sources: Company reports, FactSet, MSUSA estimates

Tax rate 2018E is MSUSA current estimate

Estimated EPS impact is to current MSUSA FY18 estimate

We do not believe all of the tax-reform benefits are reflected in the current share prices based on our analysis of pro-forma PE multiples. For example, we believe SEIC's pro-forma P/E multiple will decline to 19.4x (FY19) from 22.0x after consensus estimates are updated to reflect tax-reform. However, we believe SEIC is deserving of at least a 25% premium to the S&P 500 (3-year avg is 27%), suggesting a forward multiple closer to 23x (FY19), which compares to the pro-forma 19.4x multiple adjusted for the estimated EPS benefit from tax-reform.

### Exhibit 3: Ranking Coverage by Multiple Reduction Due to Est. EPS Increase/Decrease from Tax Reform

Rating	Company Name	MSUSA FY18E	MSUSA FY19E	P/E		Current Tax		Tax Reform EPS		Pro-Forma P/E		Ranked		
				FY18E	FY19E	2018E	2019E	FY18E	FY19E	FY18E	FY19E	FY18E	FY19E	
Winners	Neutral	Blackhawk	\$1.87	\$2.20	18.0	15.4	37%	37%	\$2.23	\$2.62	15.2	12.9	-16%	-16%
	Buy	SEI Investments	\$2.82	\$3.27	25.6	22.0	34%	34%	\$3.20	\$3.71	22.5	19.4	-12%	-12%
	Buy	WEX Inc.	\$6.40	\$7.50	22.0	18.7	36%	37%	\$7.07	\$8.35	19.9	16.8	-10%	-10%
	Neutral	TSYS	\$3.65	\$4.12	21.8	19.3	34%	34%	\$3.96	\$4.48	20.1	17.8	-8%	-8%
	Buy	Visa	\$4.05	\$4.70	27.9	24.0	29%	29%	\$4.28	\$4.97	26.4	22.7	-5%	-5%
	Neutral	MasterCard Inc.	\$5.31	\$6.15	28.5	24.6	28%	28%	\$5.53	\$6.40	27.3	23.6	-4%	-4%
	Buy	Global Payments	\$4.70	\$5.43	21.4	18.5	27%	27%	\$4.83	\$5.57	20.8	18.0	-3%	-3%
	Buy	Square	\$0.48	\$0.68	73.5	51.5	15%	22%	\$0.47	\$0.67	74.5	52.2	1%	1%
Losers	Neutral	Vantiv, Inc	\$3.70	\$4.17	20.1	17.8	19%	20%	\$3.43	\$3.90	21.6	19.0	8%	7%
	Neutral	PayPal	\$2.30	\$2.70	32.1	27.4	19%	18%	\$2.12	\$2.48	34.8	29.8	8%	9%
	Underperform	Western Union	\$1.60	\$1.67	12.0	11.5	14%	14%	\$1.40	\$1.46	13.7	13.2	14%	15%

Sources: Company reports, FactSet, MSUSA estimates

The tax deductibility of interest expense is capped at 30% of a company's EBITDA, which will not be a factor within our coverage universe. The recent wave of consolidation within payments has resulted in many companies taking on incremental debt; however, none of the companies in our coverage universe are near the 30% deduction cap. The table below demonstrates how much incremental debt each company would have to incur before reaching the 30% EBITDA cap. The takeaways are that: 1) none of our covered companies are close the 30% cap and 2) material balance sheet capacity remains for our covered companies.

**Exhibit 4: Coverage Universe Is Not Close to 30% Interest Deductibility Cap**

Ticker	Name	Current				If Interest Expense Increased To 30% of FY17E EBITDA		
		FY17E Int. Exp	Total Debt	FY 17E EBITDA	Int. Exp. % of EBITDA	Resulting FY17E Int. Exp	Resulting Total Debt (at 3.75%)	Resulting Incremental Debt
V	Visa	\$626	\$18,367	\$14,367	4%	\$4,310	\$114,934	\$96,567
MA	MasterCard	\$149	\$5,393	\$7,243	2%	\$2,173	\$57,943	\$52,550
PYPL	PayPal	\$0	\$0	\$3,412	0%	\$1,024	\$27,296	\$27,296
WU	Western Union	\$141	\$3,533	\$1,375	10%	\$413	\$11,003	\$7,470
TSS	Total System	\$116	\$2,960	\$1,189	10%	\$357	\$9,514	\$6,555
SEIC	SEI Investments	\$1	\$40	\$628	0%	\$188	\$5,024	\$4,984
GPN	Global	\$161	\$5,259	\$1,166	14%	\$350	\$9,332	\$4,073
VNTV	Vantiv	\$141	\$4,747	\$1,015	14%	\$305	\$8,124	\$3,377
WEX	WEX, Inc.	\$100	\$2,441	\$488	21%	\$146	\$3,900	\$1,460
HAWK	Blackhawk	\$32	\$745	\$233	14%	\$70	\$1,861	\$1,116
SQ	Square	\$1	\$354	\$136	0%	\$41	\$1,086	\$731

Sources: Company reports, FactSet, MSUSA estimates

Current FY17 estimates per FactSet

Resulting estimates of interest expense, total debt, and incremental debt based on assumption of interest expense at 30% of FY17E EBITDA and using an interest expense rate of 3.75%.

**Exhibit 5: Stock Price Returns 2017**

	Ticker	Price 12/31/2016	Price 12/31/2017	2017 Return
Square, Inc. Class A	SQ	\$13.63	\$34.67	154%
PayPal Holdings Inc	PYPL	\$39.47	\$73.62	87%
Total System Services, Inc.	TSS	\$49.03	\$79.09	61%
Mastercard	MA	\$103.25	\$151.36	47%
Visa Inc. Class A	V	\$78.02	\$114.02	46%
SEI Investments	SEIC	\$49.36	\$71.86	46%
Global Payments Inc.	GPN	\$69.41	\$100.24	44%
WEX Inc.	WEX	\$111.60	\$141.23	27%
Vantiv, Inc. Class A	VNTV	\$59.62	\$73.55	23%
Blackhawk Network	HAWK	\$37.68	\$35.65	-5%
Western Union Company	WU	\$21.72	\$19.01	-12%

Sources: Company reports, FactSet, MSUSA estimates



## Detailed Company Specific Outlooks

### Best Idea #1: WEX – Buy, PT \$180

**Executive Summary:** WEX enters 2018 with momentum and the advantage of better comparisons (e.g. fraud losses moderating + lapping contract renewal with OTA customer). The company is also a major beneficiary of tax reform. The company's fleet segment (~50% of total revenue) has witnessed an acceleration in organic revenue growth (to 14%) as a result of an enhanced offering resonating with prospective clients, evidenced by new business wins last year, such as Verizon that had a so-called mixed-fleet. We view the mixed-fleet offering as positioning WEX well to win additional business in 2018, including the US Postal Service contract that comes up for renewal in 2018 (incumbent is Voyager). The US Postal Service has gas-powered vehicles and a contract with third-party independent truckers, which requires a fuel card that works at both local gas stations (mail delivery) as well as truck stops (for long-haul truck delivery across state lines). In addition, WEX benefits from better comparisons in 2018: the company anniversaries the elevated fraud-losses within its fleet business, and the contract renewal with one of their largest OTA clients that in aggregate reduced 2017 EPS by at least \$0.50/share. European fleet margins are also improving as the company continues to internalize operations. The company's Healthcare segment, which has been growing in the mid-20% range, will likely be the only segment to experience more difficult comparisons in light of the BofA portfolio (HSA accounts) conversion earlier in 2017, albeit we expect growth for the segment will remain in the high teens in light of overall positive industry growth in consumer directed healthcare. All of these factors will likely result in an acceleration in EPS growth in 2018 on corresponding upward revisions to consensus estimates.

**Thoughts on 2018 guidance:** We expect FY18 adjusted EPS guidance to be in the range of low-double-digit to high-teens, with average fuel prices remaining the swing factor. Sensitivity to fuel prices has declined to 25% (of revenue) as management has diversified into non-fuel, or less-fuel dependent businesses, such as Electronic Funds Source (less-fuel dependent) and Healthcare (non-fuel dependent). Current 2018 consensus EPS expectations calls for high-teens EPS growth (Mizuho at 18%), however our estimate does not reflect any upside from tax reform. We expect the top end of EPS guidance for 2018 to assume slightly higher (+5%) fuel prices, consistent with the forward curve, and the lower end to bake in a worst case scenario of down 20%. In 2017, the unexpected fraud-related losses resulted in the company reducing the top end of its 2017 EPS guidance range by \$0.15/share mid-way through the year, and we anticipate 2018 guidance to assume \$0.10-\$0.20 share of fraud-related losses, compared to the unusually higher \$0.40/share witnessed in 2017.

**Estimates:** For the upcoming quarter, our revenue and EPS estimates are above street consensus and guidance. Our quarterly EPS (Q4) estimate of \$1.50 per share (+17.4%) compares to \$1.45/sh consensus and management's guidance range of \$1.40-\$1.47. Our \$327 million quarterly revenue estimate is at the high-end of

management's guidance range (\$317-\$327 million) and above consensus expectations of \$325.5 million. Management's guidance for the quarter assumes \$2.53/gallon average fuel prices and credit losses of 19-24 bps. Our estimates assume \$2.56/gallon gas, which based on management fuel sensitivity disclosures, would equate to an incremental \$0.05/share of EPS. Our credit loss assumption of 24 bps is at the high end of management's guidance range. Our estimates for FY18/19 are \$6.40/\$7.50. Our FY18 EPS represents 18% growth, a slight acceleration from FY17 mid-teens growth as a result of improved operating leverage, somewhat due to favorable year over year comparison on fraud. **We view WEX as a beneficiary of tax reform but our estimates do not reflect any benefit, and we estimate tax reform could benefit EPS by approximately \$0.67/share.**

**2017 Stock Performance:** Shares of WEX increased 27% in 2017, well below returns witnessed within our overall FinTech universe. The unexpected fraud-related losses and associated uncertainty regarding its containment, led investors to conclude that EPS growth would come in towards the low end of its guidance range. The company introduced FY17 guidance in mid-February calling for a wide range of potential outcomes, at 11%-20% EPS growth. We view the range as influenced by prior year's guidance ranges that incorrectly assumed average fuel prices that were proven too optimistic. The initial 2017 guidance range assumed average fuel prices of \$2.44/gallon, which is consistent with actual average fuel prices year-to-date.

**Business Segments and Performance: The Company operates three segments, Fleet (66% of revenue), Travel and Corporate (17%), and Healthcare (17%).**

**Fleet:** The company's core fleet segment posted impressive underlying performance in 2017 due to an acceleration in organic revenue growth to the mid-teen range, the result of a steady cadence of consistent new business wins (Pilot Flying J, Verizon, AutoZone), with its over-the-road offering growing mid-teens (14%), and its legacy US fleet portfolio growing at 9.5% (growth rates ex-fuel benefit). The company's acquisition of Electronic Funds Source (EFS), an over-the-road offering (closed summer 2016), created scale in this segment of the market, and increased WEX's overall addressable market to include mixed fleets. With EFS, WEX can now target fleets that have a need for fuel cards that can be used at truck stops and traditional in-town gas stations.

Last year's unexpected spike in counterfeit fraud from unauthorized transactions conducted on WEX counterfeit magnetic striped cards, have begun to trend down (down 60% in Oct from peak levels) as new real-time fraud monitoring technology has been installed. We estimate fraud-related losses will be \$10 million lower in 2018 than the \$25 million elevated levels witness in 2017. The lower fraud-related costs should contribute \$0.15/share of incremental EPS.

Outside of the United States, Europe remains a priority, where WEX currently has only a 3% market share, and is nearing the end of a multi-year integration. Margins in this area are beginning to trend higher as the company completes the final stages



of internalizing processing, thereby reducing their expenses currently being paid to third party processors.

**The US Postal Service contract renews in 2018.** The USPS represents the largest fleet within the US (over 220,000 vehicles), and the contract is up for renewal in 2018. The incumbent provider is Voyager, a division of US Bancorp, and WEX is the only other provider eligible to bid. WEX currently provides fuel card services to six federal agencies (Agriculture, Defense, GSA, Amtrak, Energy and Treasury), that in aggregate represent 300,000 vehicles. The Postal Service contract would be a significant portfolio win, and WEX has a history of winning business from Voyager, including prior government related fuel portfolios.

**A look-back on the fraud-related issue: we estimate the 2017 EPS impact from fraud to be \$0.38/share.** The total dollar impact from fraud-related losses in 2017 totaled ~\$25 million, representing 8.4 bps of fuel spend, or \$0.38/share. Typically, fraud-related losses on WEX branded fuel cards averaged only 1 bps per year, suggesting fraud rates in 2017 are running 8x normal levels. Below is a quarterly breakdown of fraud related losses by quarter.

#### Exhibit 6: Our Estimate of Fraud-Related Impacts

	Q1	Q2	Q3	Q4E	FY 2017
<b>Provision</b>	<b>\$12,600</b>	<b>\$16,082</b>	<b>\$19,614</b>	<b>\$18,312</b>	<b>\$66,608</b>
Credit-\$'s	\$11,600	\$6,482	\$11,514	\$11,903	\$41,499
Fraud-\$'s	\$1,000	\$9,600	\$8,100	\$6,409	\$25,109
<b>Total Credit Loss</b>	<b>17.8bps</b>	<b>21.7bps</b>	<b>25.5bps</b>	<b>24.0bps</b>	<b>22.4bps</b>
Credit-bps	16.38bps	8.76bps	14.98bps	15.60bps	13.93bps
Fraud-bps	1.41bps	12.97bps	10.53bps	8.40bps	8.43bps
Quarterly Guidance	10-15 bps	11-16 bps	18-23 bps	19-24 bps	
FY 17 Guidance	10-15 bps	high end	18-22 bps		18-22 bps

Sources: Company reports, FactSet, MSUSA estimates

For 2018, we estimate that fraud-related loss rate to decline to 5 bps (from 8.4), resulting in a \$10 million reduction in reported fraud expenses (\$0.15/share).

**Chevron win a work in progress.** The company was awarded a 10-year contract to market and process Chevron-branded fuel cards in December 2016, representing a competitive take-away from the incumbent provider FleetCor (FLT). The Chevron portfolio represents a sizable portfolio for FLT; at one point, FLT had to disclose Chevron as representing over 10% of revenue within their regulatory filings. We estimate the total revenue potential from Chevron to be \$40 million (\$0.15-\$20/sh assuming 20%-30% margins), and the plan was to begin converting the portfolio in the second quarter of 2018. However, the timing of the conversion could be delayed if Chevron and FLT cannot come to terms on the fair market value of the portfolio, which apparently has been a point of contention between the two parties. The current

contract Chevron has with FLT stipulates that Chevron (or their designee, WEX) can purchase the portfolio at its “fair market value”, but both parties of course have a different valuation. Outside of litigation, there does not appear to be anything to force FLT to agree on a fair market value, which is a prerequisite step towards converting the portfolio to WEX. We view the timing of this Chevron portfolio conversion to be at risk of being further delayed into 2019, but do not view this as problematic to our overall thesis and positive outlook on 2018.

**Travel and Corporate:** A contract renewal with a major US OTA customer contributed to flat revenue growth this year despite 28% volume growth. Over 80% of the segment’s revenue is derived from activity initiated within the US, but the segment is witnessing a mix shift towards international given +50% growth in non-US volumes: Europe and Asia remain two growth markets for the company. The mix shift will likely put downward pressure on the net processing rate over time given interchange fees are lower outside of the US, which we view as being offset by non-travel related volumes, including the B2B related business that was part of the EFS acquisition. Moreover, new business trends remain strong, particularly in Europe where WEX was recently granted an e-Money license. The license gives WEX a hunting license to pursue new business in regions they were previously unable to conduct business in. The company has a growing, albeit small, business in Brazil, where the company recently signed the second largest Brazilian travel group (Flytour) in early 2017.

**Sizing the 2017 OTA repricing impact:** We estimate the repricing of a larger OTA customer resulted in a \$65 million reduction in segment revenue, a portion of which was offset by the contribution from EFS (closed in summer of 2016). Net of mitigation strategies, we estimate the EPS impact to be in the range of \$0.10-\$0.20/share. The EFS acquisition was primarily an over the road fleet card business, but it also came with a corporate payments business that is now included in WEX’s Travel and Corporate (virtual card) segment. The EFS virtual card offering appears to be contributing about \$40 million in annualized revenue based on comments made by management in the past. We believe the combination of the contribution from the acquisition, and cost-related actions WEX undertook in preparation for this repricing (i.e. Mastercard contract repriced), helped minimize the overall EPS impact from this renewal. The chart below depicts revenue and operating metric trends for the Travel and Corporate Segment, including the 20 bps reduction in the net processing rate beginning the first quarter of 2017.

**Exhibit 7: Travel and Corporate Segment Statistics**

(\$ in millions)	FY 2015	FY 2016	FY 2017E	FY 2018E	FY 2019E
Corporate Payment Processing	151.3	175.8	158.1	178.9	198.4
Account Fees	1.9	1.2	0.9	1.0	1.0
Finance Fees	0.3	0.6	0.7	0.8	0.8
Other Fees	41.9	37.6	54.8	70.3	84.4
<b>Total Travel and Corporate</b>	<b>195.4</b>	<b>215.2</b>	<b>214.5</b>	<b>251.0</b>	<b>284.6</b>
Virtual Card Metrics					
Volume	\$19,440.7	\$23,965.0	\$30,688.4	\$35,598.5	\$40,938.3
Processing Rate	0.78%	0.73%	0.52%	0.50%	0.48%
<b>% Change YOY</b>					
<b>Total Travel and Corporate</b>	<b>6.8%</b>	<b>10.1%</b>	<b>-0.3%</b>	<b>17.0%</b>	<b>13.4%</b>
Virtual Card Metrics					
Volume	11.0%	23.3%	28.1%	16.0%	15.0%
Processing Rate	-3.6%	-5.8%	-29.8%	-2.4%	-3.6%

Sources: Company reports, FactSet, MSUSA estimates

We are modeling for a recovery in revenue growth in the Travel and Corporate segment in 2018.

**Healthcare:** The Company's healthcare segment has witnessed mid-20% rates of growth as a result of a superior technology offering targeting consumer directed healthcare savings accounts, a secular growth area within healthcare. While only 17% of total company revenue, this segment is growing at double the rates of the company's other two segments, albeit revenue growth will likely moderate in 2018 as a result of a large customer win that was completed in mid-2017. In addition, we believe growth in 2017 was aided by its Brazilian operations (20% of segment revenue), which was growing at 50% rates of growth in 2017 from a product that facilitates employers providing advances to their employees (payroll advances), which is considered an employee benefit in the country. Currency was also a factor in the growth. We view Brazil as a small contributor to overall company-wide operating earnings, but nonetheless, we anticipate a moderation in growth coming from Brazil in 2018.

**Other factors to consider heading into 2018:**

Next year's performance is not all about lapping elevated fraud losses and the OTA contract renewal. Other factors that may contribute to outperformance include:

- Pricing modernization ... more than just late fees.** In 2016, the company established a more systemic approach to pricing and began executing on this plan in 2017. The pricing-related actions are expected to provide a benefit for the next several years (CEO comment), and extend beyond simply increasing the late fee rate to 6.99% (from 2.99%). Based on our conversations with management, there are pricing opportunities not just on the fleet-side, but also on the acceptance side (gas stations). On the fleet side, the company has

benchmarked its various fees to its peers, and in some instances introduced new fees, such as for receiving a paper statement. It appears that there will be additional pricing benefits in 2018, and possibly into 2019.

- **Healthcare benefiting from combination of secular growth and new bank partners.** The company's total roster of clients continues to grow, with a notable new bank partner, Bank of America which will likely result in an acceleration in segment revenue growth, currently growing in low-20% range. This segment continues to outperform initial expectations from when management acquired the business three years ago (Evolution 1), and differentiates itself through a technology offering, including a focus on mobile, as well as a distribution approach that relies on partners, such as banks.
- **WEX is a major beneficiary of tax-reform.** WEX's current effective tax-rate is 36%, which ranks it among the highest tax-payers in our universe. The annualized EPS impact from 25% tax-rate would equate to an incremental \$0.67 per share.
- **The 2016 EFS acquisition contributed to an acceleration in organic growth in the Fleet Segment.** The company's over the road segment is performing above plan post the acquisition of EFS in June 2016. The truck market is largely a duopoly between Comdata (Owned by FLT), and WEX, who combined have a 90% market share. However, EFS has an advanced technology-offering, and WEX can now target so-called mixed fleets, which are fleets that have a combination of over-the-road trucks, and light vehicles. WEX appears to be gaining market share with a superior offering, and highlighted earlier in 2017 that their new business in over-the-road was up 50% in 2017 versus 2016. The company is track to achieve its targeted \$25 million of cost synergies with back office consolidation activities completed in 2017, and organic top-line growth is tracking at 15%, well above industry growth rates.

**About the OTA Virtual Card offering: Virtual Card "How it Works":** We frequently get asked about WEX's virtual card segment, and thought it useful to provide a brief description on this business.

WEX's single-use account numbers accommodate authorization limits at the transaction level and facilitate tracking and reconciling transactions (for both settlement and in the case of disputed items). OTA clients (Priceline, Expedia, Ctrip) leverage this technology to reduce back-office headcount devoted to reconciliation activities often associated with hotel-related reservations. **The pain point this addresses:** The reconciliation process involves comparing the final transaction (hotel, amount, and date) to ensure it matches the original reservation. Prior to WEX's solution, hotels would do this reconciliation matching manually via paper, and in many instances, relied on one credit card that captured all the transactions. WEX relieves OTAs of this activity by matching the settlement information with the original booking transaction, allowing the OTA reconciliation team to focus only on exceptions.

Through a single-use, virtual card number (i.e. no physical piece of plastic), travel companies assign a unique virtual card number to each transaction that has a specific dollar amount limit to be associated with a single transaction. When the transaction gets authorized, if the amount of the requested authorization is above the credit limit assigned to the card, the request will be denied which prevents overpayment by the travel company. An example: a consumer goes online to Priceline.com to bid on a hotel room using his credit card number as the source of funds. The customer wins his bid for \$100, and receives a confirmation number from Priceline.com to be used when checking into the hotel. Before the customer receives the confirmation number, Priceline.com completes several steps:

- 1) Authorizes the consumer credit card number and ensures capacity to pay. (Note: WEX has no part of this transaction, this is done by TSYS)
- 2) Assign a single-use credit card number. Priceline contacts WEX servers through APIs and a unique record is established containing six fields, one of which is populated with a disposable single-use card number.
- 3) A reservation at the hotel is created in the consumer's name which includes a WEX issued virtual card number to secure payment for the room
- 4) A confirmation number is issued to Priceline's customer
- 5) Send record to hotel with confirmation number and single-use card number. The hotel uses the single use, virtual card number to ensure payment and reserve the room

The credit limit for each card is stored at one of WEX's vendors, TSYS. All authorization requests go directly to TSYS. As part of the setup process for each virtual card number, WEX sends TSYS the credit limit information.

**Recent Trends:** WEX delivered solid 3Q results, beating revenue and EPS, driven by solid organic growth and higher than expected YoY fuel prices, which averaged \$2.51/gallon (+12.1% YoY) during the quarter, well above guidance of \$2.33/gallon. The company's fleet-related credit loss was 23.5 bps, above guidance for 18-23 bps, however, the losses due to card skimming fraud lessened sequentially and were slightly less than 50% of fleet credit losses, versus over 50% in 2Q. Management noted fraud trended down as the quarter progressed, and that the monthly fraud expense from September and October is down ~60% from the high point in 2Q. We expect fraud related losses will continue to trend lower and ultimately return to historical levels by the end of 2018.

**Valuation:** We are increasing our PT to \$180 per share, from \$135 per share. Our PT represents 24.0x our FY19 EPS estimate of \$7.50/share. We view 24.0x as reasonable given our view that EPS growth will average high-teens in FY18 and FY19, and the fact WEX could be a major beneficiary of tax-reform. The company's plan to globalize its fleet and online travel offering, diversification into less fuel sensitive and/or higher growth areas, such as US healthcare payments, and ongoing pricing modernization activities, are beginning to provide a realistic path towards sustained high-teen earnings growth.

**Exhibit 8: Estimates vs Consensus**

WEX, Inc. WEX	Next Quarter		FY 2017 E		FY 2018 E		FY 2018 E	
	MSUSA	Consensus	MSUSA	Consensus	MSUSA	Consensus	MSUSA	Consensus
Revenues (\$ mil)	\$327.6	vs. \$325.5	\$1,246.9	vs. \$1,241.3	\$1,429.0	vs. \$1,390.9	\$1,553.1	vs. \$1,521.5
EPS	\$1.50	vs. \$1.45	\$5.42	vs. \$5.37	\$6.40	vs. \$6.40	\$7.50	vs. \$7.36

Sources: Company reports, FactSet, MSUSA estimates

**Exhibit 9: Guidance Trends**

2017 \$ in millions except per share and per gallons	4Q Earnings 2/13/2017	1Q Earnings 4/27/2017	2Q Earnings 7/27/2017	3Q Earnings 11/1/2017
Revenues	\$1,150-\$1,190	\$1,165-\$1,205	\$1,200-\$1,220	\$1,240-\$1,250
YoY	13-17%	14-18%	18-20%	22-23%
Average Retail Fuel Price	\$2.44	\$2.44	\$2.36	NA
YoY	10%	10%	7%	NA
Adjusted EPS	\$5.10-\$5.50	\$5.15-\$5.50	\$5.15-\$5.35	\$5.31-\$5.38
YoY	11-20%	12-20%	12-16%	15-17%

Sources: Company reports, FactSet, MSUSA estimates

## Best Idea #2: SEI Investments – Buy, PT \$90

**Executive Summary:** SEIC’s new wealth management platform should begin to gain traction in the US banking marketplace now that Regions Bank is live on the platform, and TIAA CREF and Wells Fargo are in process of implementing. The US banking industry is in a much better position to begin investing in their internal infrastructure, and we view wealth management as a critical technology infrastructure in dire need of an upgrade. SEI’s wealth management platform provides cost savings and efficiency improvements to large banks seeking to consolidate onto one single platform, which can result in the elimination of dozens of legacy platforms that require costly integration. We also view SEIC as a beneficiary of tax reform which has the unexpected benefit of reducing the risk of SEIC having a “bad quarter” this year from any uptick in operating expenses related to investment in this new platform. We view any rise in operating expenses to be an opportunistic use of excess capital related to tax-reform. The company has a history of generating highly attractive ROIC, has a solid balance sheet, and a track record of returning capital to shareholders.

**Upcoming guidance for 2018:** The Company does not issue financial guidance.

**Estimates:** For the upcoming quarter, our revenue and EPS estimates are slightly below consensus expectations (EPS estimate of \$0.59 vs consensus of \$0.60). Our



annual estimates are FY17 \$2.34 (15.1%), FY18 \$2.82 (20.6%), and FY19 \$3.27 (16.0%). **Our estimates are below the street, but we believe this is likely due to consensus for SEI reflecting estimated benefits from tax reform. Our estimates do not reflect benefits from tax reform, which we estimate could add \$0.38 to SEIC's EPS.**

**2017 Stock Performance:** Shares of SEIC increased 46% in 2017 on a corresponding 19% YoY increase in the S&P. In addition to market appreciation, we view the share performance as a favorable reaction to positive margin commentary by management, and the onboarding of their first major US bank client on the new wealth management platform (Regions Bank). Last year, several new clients signed up for SWP, including TIAA, but none as material as Wells Fargo (2015) or Regions (2016).

**Business Segments and Performance:** The Company operates four main lines of business, Private Banks (31% of revenue), Investment Advisors (24%), Institutional Investors (21%), and Investment Managers (24%).

- Private Banks:** This segment has grown revenue just 1% YTD, as it is the least market sensitive of the four business units, and is the most reliant on implementing new clients onto the SWP platform. Despite the lack of growth this year, a positive development occurred at the end of 3Q, as the company installed Regions onto the SWP platform which will result in recognizing revenues from Regions while also benefiting from a reduction in the associated pre-conversion costs associated with the Regions implementation. The Private Banks segment incurs the majority of SWP-related expense of any of the business units, and the head of Private Banks noted on the 3Q earnings call (October 25) that platform-related development expense “has really peaked earlier this year. And that certainly will start to decline probably into next year” as the company gets closer to completing their large bank Platform-as-a-Service model (what is being used for Regions) and the Software-as-a-Service model (what is being used for Wells). Year to date, margins of 3.1% are down 625 bps YoY, due to elevated expenses associated with SWP.
- Investment Advisors:** Revenues are up 13% YTD and have been in double digits for five consecutive quarters, as this segment continues to benefit from the YoY increase in market valuations, positive asset flows, and net new advisors. The company migrated \$12 billion of advisor assets onto the new SWP platform in 3Q, at the same time the Private Banks segment migrated Regions onto the platform. The \$12 billion advisor migration was the largest to date and the segment now has over \$32 billion on the platform – there are now more accounts and AUM on SWP than on the legacy platform for this segment. The remaining advisor assets are expected to be fully migrated to the SWP platform during 2019. Margins are up 161 bps YoY in this segment, as the market valuation-related revenue lift has helped offset increased costs associated with SWP, particularly costs associated with development and migration efforts.

- Institutional Investors:** Revenues are up 5.2% YTD, which is in line with the ~5% revenue growth rate witnessed for each of the last two years. The positives are that client funding, committed but unfunded assets, and client signings are all up YoY. However, the company has noted several times that competition in the OCIO space has been increasing, which necessitates investments in order to distinguish SEI in the market place. As this segment invests in headcount, technology, and launching new products, margins have stagnated some and are down 125 bps YTD.
- Investment Managers:** Revenues are up 18% YTD (16% ex-Archway) as market appreciation has boosted this segment's performance into the double digits for five consecutive quarters. The addition of Archway enhances SEI's offering to the family office industry approximately \$25 of annual revenue to the company, in what was its first acquisition since 2012. Management sees demand and backlog across this market as strong, and is witnessing good retention, with just one client lost over the past two quarters. Margins are up 8 bps YoY or 27 bps excluding amortization charges from Archway.

**Recent Trends:** The Company reported solid 3Q results, as revenues of \$386.0 million (8.8%) beat consensus of \$385.0 million, while EPS of \$0.63 (19.3%) also beat consensus of \$0.58. Normalizing for tax rate, EPS was in line. Along with adding client assets, the ongoing YoY increase in the S&P 500 (+14.1% YoY) continues to boost AuM, which was up 11% YoY ex LSV and advised assets. During the quarter, Regions went live on SWP, and the Advisors segment had a migration event that included \$12 billion of assets, 90k accounts, and 920 firms moving to the SWP platform. Both were "extremely" successful events according to the CEO.

**Valuation:** We are increasing our PT to \$90, from \$72. Our \$90 price target represents 27.6x our FY 2019 estimate of \$3.27. Adjusting for \$4.25 per share of cash, valuation declines to 26.3, above the company's three-year average FY2 PE of 20.5x. SEI has a solid balance sheet (\$685 million in cash, \$40 million in debt), historic strong cash flow generation, and a history of returning capital to shareholders, all of which serve to support the share price.

### Exhibit 10: Guidance Trends

SEI Investments SEIC	Next Quarter		FY 2017 E		FY 2018 E		FY 2019 E	
	MSUSA	Consensus	MSUSA	Consensus	MSUSA	Consensus	MSUSA	Consensus
Revenues (\$ mil)	\$391.3	vs. \$397.2	\$1,509.6	vs. \$1,515.5	\$1,694.1	vs. \$1,668.4	\$1,848.1	vs. \$1,794.9
EPS	\$0.59	vs. \$0.60	\$2.34	vs. \$2.35	\$2.82	vs. \$2.98	\$3.27	vs. \$3.39

Sources: Company reports, FactSet, MSUSA estimates

## BUY Rated Stocks: Detailed Outlooks

### Global Payments – Buy, \$110 PT

**Executive Summary:** A recalibration of expectations heading into 2018 will likely keep expectations realistic for when management introduces FY18 guidance in January/February, re-establishing prospects for organic net revenue growth acceleration in 2018. Our BUY rating is informed by 1) Global's solid track record integrating accretive acquisitions; 2) 17 consecutive quarters of meeting or beating consensus EPS; and 3) positive mix shift resulting from higher growth integrated payments channels (~40% revenue exposure to ISVs/eCommerce). North America organic net revenue growth moderated to high single digits in 3Q (from low double digits in 2Q), but high single digits is consistent with management's bogey.

**Upcoming guidance for 2018:** We believe adjusted FY18 EPS growth guidance will be in the mid-high teens, an achievable bar that Global will likely beat and raise over the course of the year, similar to what it did in all three quarters so far in 2017. Investors will also focus on any organic revenue guidance surrounding the North American segment, which we expected will be high single digits, similar to last year.

**Estimates:** For the upcoming quarter, our revenue estimate is slightly below consensus expectations, as is our EPS estimate of \$1.04, vs \$1.06. Our annual non-GAAP EPS estimates are FY17 \$3.98, FY18 \$4.70, and FY19 \$5.43. We assume FY17 margin expansion in line with management guidance of "up to 120 bps". While 3Q's organic growth in the North America segment moderated to 9%, from 11% in 2Q, this 9% growth remains in line with management's guidance, and we anticipate continued pricing adjustments to the portfolio of US merchants acquired from Heartland (closed April 2016) as contracts renew, serving as an insurance policy to protect mid-high teen EPS growth. **We view GPN as a beneficiary of tax reform but our estimates do not reflect any benefit; we estimate tax-reform will benefit EPS by approximately \$0.13/share.**

**2017 Stock Performance:** In 2017, shares of GPN increased 44%, ahead of peer merchant acquirer Vantiv but below Total System Services. The shares generally exhibited a steady climb upwards as Global delivered consistent performance, beating consensus EPS and increasing EPS guidance in each quarter this year. The acquisition of Heartland (\$4 billion, December 2016) has resulted in greater exposure to the U.S. market, but has also provided vertically integrated software solutions targeting the university segment (TouchNet).

**Business Segments and Performance:** The Company has three business segments: North America (74% of net revenue), Europe (19%), and Asia-Pacific (7%).

- **North America:** North America organic net revenue growth had been growing in the low double digits but this moderated to high single in 3Q (high single was in line with initial management expectations). This was in part due to Heartland lapping attrition-related comps, as attrition improved greatly after the closing of

the acquisition last year. Weakness in the smaller ISO business also impacted growth, although Global is continuing to diversify away from this business. Importantly, the company's integrated and vertical markets continued to grow in the double digits, and the company expects its recent \$1.2 billion acquisition of ACTIVE Network to be consistent with this growth figure heading into 2018. These faster-growing integrated and vertical markets, along with eCommerce, now comprise ~40% of total worldwide net revenue. Margins in this segment are up 160 bps YoY due to growth within these higher-margin technology-enabled businesses, but also due to continued expense synergy realization from the acquisition of Heartland.

- Europe:** Europe has outperformed initial expectations for this year. While management expects high single digit constant currency growth for this business, normalized organic growth has been 13% in both 3Q and 2Q. This has been caused by a strong tourism season, and a weak British pound which creates more travel to the UK, and more spending in the UK. In addition, Global continues to see market share gains in Europe, with its eCommerce and omni-channel offering growing double digits. Management remains confident in its high single digit net revenue growth target for this business. Operating margins are down 144 bps YoY YTD, as the company worked through integration expenses associated with its Erste JV during the first half of the year. However, these expenses were lapped at the end of 2Q, and pressure on margins should reduce going forward. Margins were flat YoY in 3Q.
- Asia-Pacific:** Asia-Pacific has outperformed expectations this year, with initial expectations for low double digit net revenue growth, but with 2Q and 3Q growing closer to 15%. Revenue growth continues to be driven by strong trends in Hong Kong, Singapore, China, and Taiwan, and contribution from Ezidebit, which continues to grow 20% organically. Margins are up 241 bps YoY due to contribution from the high-margin Ezidebit business, as well as this segment beginning to reach a scale that takes advantage of several years of expense optimization within this segment.

**Recent Trends:** Management increased FY17 revenue and EPS guidance on the 3Q earnings call (November 8) to reflect quarterly performance as well as the acquisition of ACTIVE Network, which closed in September. ACTIVE added \$14 million to 3Q revenue, and is expected to add \$40-\$45 million to 4Q and be immaterial to adjusted EPS. FY17 adjusted revenue guidance was increased to a range of \$3.505-\$3.530 billion (23-24% YoY) versus \$3.400-\$3.480 billion (20-22% YoY) prior, while FY17 adjusted EPS guidance was increased to a range of \$3.94-\$4.02 (24-26% YoY) from \$3.85-\$4.00/share (21-25% YoY) prior.

**Valuation:** We are increasing our PT to \$115, from \$110. Our price target of \$115 represents 21.2x our FY19 adjusted EPS estimate of \$5.43/share. This is above the company's three-year average FY2 PE of 19.1x, but we believe a premium to this average is warranted given Heartland adds a highly productive sales force, GPN's

history of assimilating acquisitions, and residual pricing changes within the legacy Heartland portfolio over time.

### Exhibit 11: Estimates vs Consensus

Global Payments GPN	Next Quarter		FY 2017 E		FY 2018 E		FY 2019 E	
	MSUSA	Consensus	MSUSA	Consensus	MSUSA	Consensus	MSUSA	Consensus
Revenues (\$ mil)	\$935.2	vs. \$942.2	\$3,517.4	vs. \$3,524.4	\$3,991.0	vs. \$3,998.3	\$4,364.3	vs. \$4,346.1
EPS	\$1.04	vs. \$1.06	\$3.98	vs. \$4.00	\$4.70	vs. \$4.74	\$5.43	vs. \$5.45

Sources: Company reports, FactSet, MSUSA estimates

### Exhibit 12: Guidance Trends

Calendar 2017 Guidance (\$ in mil, ex/sh)				
	After 2Q FY17 01/09/17	After 1Q CY17 05/04/17	After 2Q CY17 08/03/17	After 3Q CY17 11/08/17
<b>Adjusted Revenue Reported</b>	\$3.350-\$3.450	\$3.380-\$3.460	\$3.400-\$3.480	\$3.505-\$3.5300
% YoY	18-21%	19-22%	20-22%	23-24%
<b>Adjusted EPS Reported</b>	\$3.70-\$3.90	\$3.78-\$3.95	\$3.85-\$4.00	\$3.94-\$4.02
% YoY	16-23%	19-24%	21-25%	24-26%

Sources: Company reports, FactSet, MSUSA estimates

## Mastercard – BUY, PT \$175

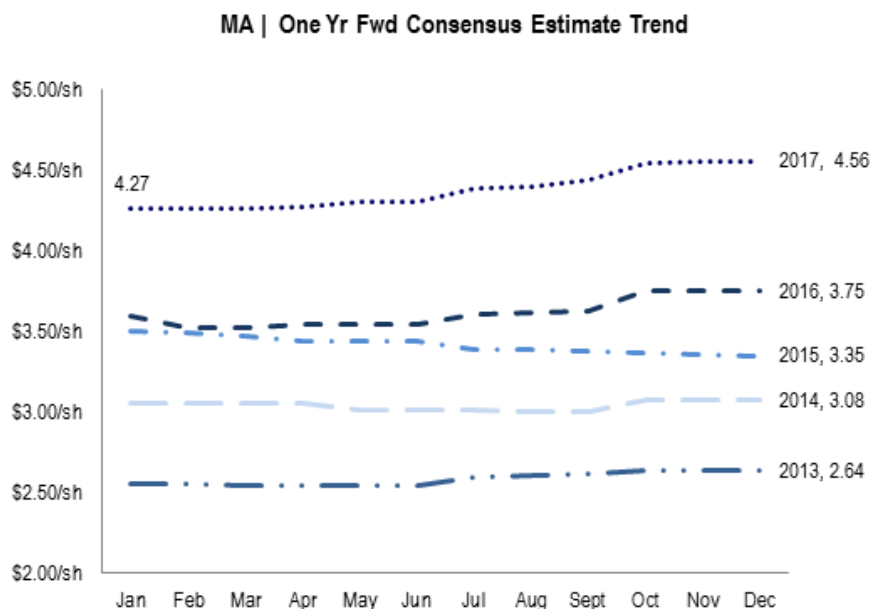
**Executive Summary:** Our conviction in high-teen EPS growth has increased due to improved economic conditions, prospects for inflation (which benefits a key revenue input, payment volumes), and recent new business wins, such as a new cash-back consumer credit card from BofA that will be marketed to mass affluent clients of the bank. The secular thesis remains firmly intact, despite daily press reports about the prospects for China's two mobile-based payment firms, Alipay and WeChat Pay, to displace both Mastercard and Visa. In markets where Mastercard has an established presence, we views these threats as limited to spending activity from China tourism, a market segment that was never conducted on Mastercard branded cards to begin with. In other markets lacking easy access to financial services, such as Southeast Asia and Africa, these Chinese mobile alternatives continue to provide an attractive option. Regardless, the secular runway for Mastercard remains significant, even in developed regions, given the trillions of dollars of consumer transactions still conducted with cash. We view Mastercard's foray into business to business payments (B2B) as a work in process, as B2B is very use-case specific that requires complex integration with ERP systems.

**Thoughts on 2018 guidance:** We anticipate FY18 thoughts to include net revenue growth at the high-end of LDD with no specific thoughts on EPS growth as has been customary in the past. We also anticipate management to guide to operating expense growth slightly below net revenue growth to imply operating margin expansion. Inclusive of buybacks, we view implied EPS guidance to be high-teen EPS growth. Mastercard’s existing 3-year cycle CAGR guidance for net revenue (high end of low-double digit CAGR), operating margin (minimum of 50%) and EPS (currently ~20%), are supplemented at the beginning of each year with “thoughts” for the upcoming year. **Our FY18 estimate for high-teen EPS growth excludes any benefit from tax-reform, which could contribute ~\$0.22 of incremental EPS in FY18, or +20% EPS growth.**

**Our Estimates:** Our EPS estimates are FY17 \$4.55, FY18 \$5.31, and FY19 \$6.15. **We view MA as a beneficiary of tax reform but our estimates do not reflect any benefit; we estimate tax-reform will benefit EPS by approximately \$0.22/share.**

**2017 Stock Performance:** Shares of MA increased 47% in 2017, due primarily to multiple expansion. MA’s forward multiple (NTM) increased from 24.0x at the beginning of the year, to 28.0x, which accounted for ~80% of the stock performance this year. By comparison, consensus EPS estimates increased about \$0.25/share in 2017, beginning the year at \$4.30 per share, and then experiencing upward revisions to estimates in the second half, approaching their current level of \$4.56 per share. Of note, the 6.9% increase in consensus estimates in 2017 represented the most material revisions over the past five years.

**Exhibit 13: Mastercard EPS Estimate Trend**



Sources: Company reports, FactSet, MSUSA estimates



**Recent trends:** Mastercard reported strong results (3Q on 10/31), including better than expected revenues, some of which were reinvested into growth areas (i.e. MasterPass, digital, geographic expansion). Regardless, margins came in better than anticipated and we are not concerned about the slight increase in operating expense growth, which will come in at the higher end of “high single digits” guidance. Excluding acquisitions and FX, core operating expense growth was 11% in 3Q, vs 7% in 2Q. The company still expects Vocalink to be \$0.05-\$0.06/sh dilutive in 2017, and to remain dilutive into 2018.

**Factors to consider heading into 2018:**

- **BofA portfolio win.** The company was awarded a new cash reward card that will be marketed to mass affluent clients of the bank. While not a competitive take-away from Visa, this was a significant win for Mastercard as BofA has not really aligned themselves with either network, and instead, prefers to split the business between the two competitors. Given BofA’s ownership of Merrill Lynch, we believe this new mass affluent card could be sold through this important channel, albeit the recent Wells Fargo ‘account opening scandal’ will likely keep cross-selling practices under close scrutiny.
- **MasterPass.** Management has been highlighting their digital wallet offering as one of their investment focuses, including raising awareness through marketing efforts. We anticipate 2018 will represent a critical year for MA to gain more widespread acceptance of their proprietary digital wallet offering as a checkout option in digital channels.
- **Value added services:** Mastercard’s tokenization security technology was recently adopted by Netflix for purposes of tokenizing their customers’ credit card credentials (accounts on file), with additional plans for Netflix to leverage MA’s application programming interface (API) for purposes of automatically updating their customer’s credit card credentials changes (lost, stolen or expired). Given the constant re-issuance of credit cards to consumers following data breaches, we believe this Automatic Billing Updater technology will gain traction with other eCommerce providers.
- **Business payments.** The acquisition of Vocalink (closed May 2017) provides MA a new set of payment rails and associated technology that is more oriented towards B2B payments. It will likely take time for MA to get validation it can develop new offerings that resonate with large businesses, a market that is currently dominated by the bank-owned ACH payment network (The Clearing House). At a minimum, it creates some interesting optionality for MA as they are now the current operator of the United Kingdom’s real-time payment network, which was developed and operated by Vocalink before Mastercard acquired the firm.
- **Acquisitions.** In addition to Vocalink (\$1.2 billion purchase price), Mastercard has acquired capabilities in artificial intelligence (Brighterion, closed 2017),

security (NuData Security, 2017), and data analytics (Applied Predictive Technologies, 2015), all areas that will remain candidates for additional acquisitions over the next several years. The company has been a steady acquirer, completing acquisitions in eight of the last ten years. The Vocalink acquisition marked the company's largest acquisition to date.

**Valuation:** We are increasing our PT to \$175, from \$145. We believe the shares are deserving of a premium multiple given their superior growth prospects, global addressable market, acceptance network, and brand. Our PT of \$175 represents 28.5x our FY19 EPS estimate of \$6.15 per share, or 27.6x pro-forma tax reform (assume 25% vs. 28% tax rate). While a 28.5x multiple is above the company's 5-year average of 23.8x, it is consistent with its average relative to the S&P 500, averaging 152% of the S&P 500.

### Exhibit 14: Estimates vs Consensus

MasterCard MA	Next Quarter		FY 2017 E		FY 2018 E		FY 2019 E	
	MSUSA	Consensus	MSUSA	Consensus	MSUSA	Consensus	MSUSA	Consensus
Revenues (\$ mil)	\$3,237.1	vs. \$3,248.0	\$12,422.1	vs. \$12,437.0	\$13,962.6	vs. \$14,032.3	\$15,651.1	vs. \$15,615.0
EPS	\$1.10	vs. \$1.12	\$4.55	vs. \$4.56	\$5.31	vs. \$5.39	\$6.15	vs. \$6.30

Sources: Company reports, FactSet, MSUSA estimates

### Exhibit 15: Guidance Trends: FY2017 "Thoughts" & 3-Year Cycle Guidance

FY 2017 Guidance	4Q Earnings 1/31/2017	1Q Earnings 5/2/2017	2Q Earnings 7/27/2017	Analyst Day 9/7/2017	3Q Earnings 10/31/2017
Net Rev FX Adjusted	Low Double	NC	NC	High End Low Double	NC
Op Ex FX Adjusted	High Single	NC	NC	NC	High end of High Single
Tax Rate	28-29%	Low end 28-29%	28%	NC	27%
Vocalink FY17 EPS contribution	NA	\$0.05-\$0.06 Dilutive	NC	NC	NC

LT Guidance 2016-2018 (Constant Currency)	Analyst Day 9/9/2015	Analyst Day 9/7/2017
<b>Metric</b>		
Net Revenue CAGR	Low Double Digits	High End Low Double
Operating Margin	Minimum 50% Annually	NC
EPS CAGR	Mid Teens	~20%

Sources: Company reports, FactSet, MSUSA estimates

LT guidance introduced at 2015 Analyst Day

## Square – Buy, \$40

**Executive Summary:** We expect SQ to benefit from multiple sources of continued revenue growth in 2018 including: 1) international expansion, 2) continued penetration of larger sellers (enhanced by the new Square Register product), 3) and

the take-up of higher margin ancillary products by Square sellers, such as Square Capital and Instant Deposit. We also view the announcement to enable cryptocurrency purchases through the company's mobile P2P app (Square Cash), as a positive catalyst to drive familiarity and ultimately usage of this app. We note cryptocurrency wallet provider Coinbase expanded its user base from 5 million in January 2017 to over 13 million currently.

**Upcoming guidance for 2018:** We believe the company will re-affirm its annual EBITDA margin guidance of +500 bps for FY18, although we would not rule out the possibility of a series of beat-and-raise quarters this year, as was the case in FY17. We would also expect management to issue a net revenue guidance range that captures current consensus expectations of 31%.

**Estimates:** For the upcoming quarter, our revenue estimate is slightly below consensus while our adjusted EPS estimate of \$0.07 is in line, as is our adjusted EBITDA estimate of \$38.3 million. Our FY18 adjusted EBITDA estimate of \$244 million implies a margin of 20% (+570 bps YoY), while our FY19 adjusted EBITDA estimate of \$366 million implies a margin of 24% (+412 bps YoY). In terms of adjusted EPS estimates, our FY17 adjusted EPS of \$0.26 is \$0.01 above consensus, our FY18 adjusted EPS estimate of \$0.48 is \$0.03 above consensus, and our FY19 estimate of \$0.68 is \$0.06 below consensus. **We view SQ as a net loser under tax reform but our estimates do not reflect tax reform, nor do we believe investors are valuing the firm on EPS. Our DCF-derived valuation model assumes a 20% effective tax rate.**

**2017 Stock Performance:** The stock returned 154% in 2017, and was the best performing stock within our coverage universe. A steady series of beat-and-raise quarters has proved this business model is profitable, something that was in doubt post-IPO, and management has increased their FY17 adjusted EBITDA guidance by a total of 27% at the midpoint YTD. In addition, the company has been able to move upmarket remarkably well: volume from large (+\$500k volume/year) sellers now stands at 20% of total volume, a 43% increase from last year's 14%. Finally, Square has been successful in building out new products that have seen strong initial uptake by its user base, providing another source of revenue growth heading into FY18.

**Business Segments and Performance:** The Company derives revenues from three sources, transaction-based processing (87% of gross revenues), subscription and services (11%), and hardware (2%).

- **Transaction-based processing:** Revenues are up 32% YoY, all organic, which we note is 3-4x that of other processors that are growing organic revenues in the high single digits. The raw input for this growth is Gross Payment Volume, which has also grown 32% YoY driven by accelerating growth among Square's larger sellers – in the most recent 3Q, sellers that generate +\$500k/year in volume grew 64% YoY, an acceleration from 2Q's 61%. Despite this move upmarket, the net take rate YTD of ~1.05% has held steady as newer products

such as Virtual Terminal, Invoices, and Square API have higher revenue rates and help to offset custom (lower) pricing for some of Square’s larger merchants.

- **Subscription and Services:** Revenues are up 95% YTD, as newly created products are experiencing continued adoption. For example, Square Capital originations are up 59% YoY, while the Instant Deposit feature has witnessed impressive growth in a short period of time - \$3 billion of volume in less than two years, with \$2 billion of that coming in 3Q17 alone.
- **Hardware:** Revenues are down 17% YTD, but at just 2% of gross revenues, management more or less uses hardware to proliferate the market and drive the other two revenue models. Hardware revenue and growth rates have normalized since 1H16 when Square’s contactless and chip reader began shipping and caused outsized growth in hardware revenues.

**Recent Trends:** Square’s reported 3Q results (November 8) were ahead of expectations, including adjusted revenues of \$257.1 million (+44.6% YoY) and adjusted EPS of \$0.07/share (versus \$0.02 last year). Adjusted EBITDA of \$34.3 million compared to guidance of \$27-\$30 million and street consensus of \$32.5 million. Square continues to grow organic revenue at 3-4x peer processors, and is steadily improving profitability. In addition, Square continues to attract larger sellers, as the cohort of sellers with volume of \$500k/yr or more is now 20% of volume, up from 19% in 2Q, and this cohort is growing volume the fastest. Management increased all of its guidance metrics as part of the 3Q earnings call - FY17 adjusted net revenue guidance was increased to \$963-\$966 million (40-41%), up from \$925-\$935 million (35-36% YoY) prior. Adjusted EPS guidance was increased to \$0.24-\$0.25 (vs \$0.04/share last year) from \$0.21-\$0.23/share prior. Adjusted EBITDA guidance was raised to \$132-\$135 million (vs \$44.9 million last year) from \$120-\$128 million prior, and management remains committed to 500 bps of annual Adjusted EBITDA margin improvement.

**Valuation:** We are increasing our PT to \$40, from \$39. We utilize a discounted cash flow model to derive a share price value for Square. We assume Square grows GPV to \$181 billion in 2022, resulting in net revenue of \$2.6 billion (22% CAGR), and an adjusted EBITDA margin of 39%, in line with peer processors and management guidance for 500 bps of adjusted EBITDA margin expansion annually.

### Exhibit 16: Estimates vs Consensus

Square SQ	Next Quarter		FY 2017 E		FY 2018 E		FY 2019 E	
	MSUSA	Consensus	MSUSA	Consensus	MSUSA	Consensus	MSUSA	Consensus
Revenues (\$ mil)	\$262.9	vs. \$266.7	\$964.2	vs. \$967.7	\$1,232.2	vs. \$1,274.5	\$1,528.7	vs. \$1,646.7
EPS	\$0.07	vs. \$0.07	\$0.26	vs. \$0.25	\$0.48	vs. \$0.45	\$0.68	vs. \$0.74

Sources: Company reports, FactSet, MSUSA estimates

**Exhibit 17: Guidance Trends**

FY 2017 (\$ in mil, ex per share)	4Q 2/22/2017	1Q 5/3/2017	2Q 8/3/2017	3Q 11/8/2017
Adjusted Revenues	\$880-\$900	\$890-\$910	\$925-\$935	\$963-\$966
YoY Growth	28-31%	30-33%	35-36%	40-41%
Adj EBITDA	\$100-\$110	\$110-\$120	\$120-\$128	\$132-\$135
Adj EBITDA Margin Midpoint	12%	13%	13%	14%
Adj EPS	\$0.15-\$0.19	\$0.16-\$0.20	\$0.21-\$0.23	\$0.24-\$0.25
YoY Growth	NM	NM	NM	NM

Sources: Company reports, FactSet, MSUSA estimates

## Visa – Buy, PT \$135

**Executive Summary:** Heading into 2018, management has already provided solid guidance for high single digit net revenue growth, and adjusted EPS growth at the high end of the mid-teens. The integration of Visa Europe remains ahead of schedule, and will deliver mid-single-digit EPS accretion during FY17 versus management’s initial expectation for 2% to 3%. We anticipate sustained mid to high-teen EPS growth over the next several years as a result of a continuation of secular tailwinds, growth from new markets (India), digital, and pricing (Visa Europe). We also view the upcoming FIFA 2018 World Cup (Russia) and 2020 summer Olympics in Tokyo as potential catalysts. We remain positive on the shares of Visa.

**Upcoming guidance for 2018:** Visa has a September fiscal year, and on its 4Q earnings call on 10/25, gave a FY18 outlook that calls for high single digit nominal net revenue growth, and adjusted EPS growth at the high end of the mid-teens. Visa is expecting operating expense growth in the mid-single digits and an annual operating margin in the high 60% range for FY18.

**Estimates:** For the upcoming quarter, our revenue estimate is slightly below consensus expectations while our adjusted EPS is in line with consensus. Our annual estimates are FY18 \$4.05, FY19 \$4.70, and FY20 \$5.40. Renewals that slipped into FY18 had the effect of helping FY17 EPS growth by 1 point, but will likely dampen FY18 EPS by “almost” 1 point. Regarding Visa Europe, management commentary remains positive as this integration remains ahead of schedule. Visa noted that for FY17, Europe was "mid-single-digit" EPS accretive, above management's expectation for 2% to 3%. **We view Visa as a beneficiary of tax reform but our estimates do not reflect any benefit; we estimate tax-reform could benefit EPS by approximately \$0.23/share.**

**2017 Stock Performance:** In 2017 shares of Visa increased were up 46%, similar to Mastercard’s 47%, and well ahead of the broader S&P500. The shares witnessed solid performance all year, as the company delivered three strong EPS quarterly beats, and gradually raised guidance for both net revenue growth and EPS over the course of the year. While some of this guidance raise was due to lowered

expectations for client incentives and a lower tax rate, strong underlying volume growth was also a contributing factor, as was Visa Europe coming along faster than expected. Initial FY17 guidance was for net revenue growth of 16-18%, versus a final result of 21.7%, while initial FY17 adjusted EPS growth guidance was for mid-teens, versus an actual result of 22.4%.

**Business Segments and Performance:** The Company earns revenues from four line items, Service Revenues (35% of gross revenues), Data Processing Revenues (34%), International Revenues (28%), and Other (4%).

- **Service Revenue.** Revenues were up 18% YoY in FY17, as payments volume is the primary driver and was up 30% on a constant currency basis (ex co-badged volume) due to three quarters of contribution from the Visa Europe acquisition, which closed in June 2016, as well as new partnerships with USAA and Costco. Service revenue growth of 18% was below that of payment volume growth due to the lower revenue yields associated with these Visa Europe banks. However, management noted on the 4Q earnings call that it had achieved its target of having 75% of the Visa Europe contracts moved from rebates to commercial incentives by 4Q, with the remaining 25% expected to be complete in 1H18. This will improve the revenue yield associated with the Visa Europe banks going forward.
- **Data Processing Revenue.** Revenues were up 24% YoY, as the number of processed transactions was up 34% YoY driven by the inclusion of Visa Europe, and new partnerships with USAA and Costco. The growth in data processing revenues was slower than that of processed transaction growth due to lower-yielding data processing revenues from Visa Europe. The renegotiation of contacts with Visa Europe banks should also improve yields in this revenue item as well, similar to Service revenue.
- **International Revenue.** Revenues were up 36% YoY, a strong result driven by solid cross border volume growth of 80% on a constant currency basis, due mostly to the addition of Visa Europe. However, even ex-Europe, constant currency growth was ~11%, which was almost double the prior year growth figure of ~6%. Management has credited stronger economies with spurring travel, which has improved results in this business, as well as a positive currency dynamic in the first three quarters of the year (strong dollar, weak euro and pound) which generated strong outbound commerce from the U.S. and high inbound commerce into Europe (UK). International fees also reflected select pricing modifications.
- **Other Revenue.** Other Revenues were up 2% YoY, and represent just 4% of total gross revenue. These fees consist of license fees for using Visa's brand, account holder service fees, and licensing/certification activities.
- **Client Incentives (contra revenue item).** At \$4.6 billion (+34% YoY), client incentives were 19.9% of gross revenues in FY17, just below guidance of 20.0-



20.5%. Client incentives increased in FY17 due to incentives incurred on contracts that were initiated/renewed during the year, the addition of Visa Europe's incentives, and the overall growth in payments volume. Despite this YoY increase, renewals were actually lower than initial expectations of 20.5%-21.5% of gross revenues, as it has taken management longer than expected to renegotiate contracts with Visa Europe banks due to the sheer number of banks involved. As a result, some renewals have slipped into FY18, although the company believes they will complete the renewal process in 1H18.

**Recent Trends:** The company's 4Q (Sep) witnessed solid global payment volume growth and continued strength in cross border despite a tough YoY comp. The result was strong metrics that included net revenue of \$4.855 billion (+13.9% YoY) that beat consensus of \$4.630 billion, and adjusted EPS of \$0.90 (+15.1% YoY) that beat consensus of \$0.85. Management introduced good FY18 guidance, which calls for net revenue growth in the high single digits and adjusted EPS growth guidance at the high end of the mid-teens, both of which were in line with consensus.

**Valuation:** We are increasing our PT to \$135 from \$120. Visa's unique secular tailwinds (cash to electronic), high barriers to entry (acceptance network, two sided market dynamics), massive addressable market and revenue visibility support a premium multiple, in our view. Our \$135 price target is 28.7x our FY17 (Sep) EPS estimate of \$4.70 per share.

### Exhibit 18: Estimates vs Consensus

Visa V	Next Quarter		FY 2017		FY 2018 E		FY 2019 E	
	MSUSA	Consensus	MSUSA	Consensus	MSUSA	Consensus	MSUSA	Consensus
Revenues (\$ mil)	\$4,775.4	vs. \$4,808.5	\$18,358.0	vs. \$18,358.0	\$20,037.9	vs. \$20,101.1	\$22,303.7	vs. \$22,238.9
EPS	\$0.98	vs. \$0.98	\$3.48	vs. \$3.48	\$4.05	vs. \$4.11	\$4.70	vs. \$4.79

Sources: Company reports, FactSet, MSUSA estimates

### Exhibit 19: Guidance Trends

FY 2018 Guidance	4Q Earnings 10/24/2016
Net Revenue Growth YoY Nominal	High Single
Client Incentives % of Gross Rev	21.5-22.5%
Operating Expense Growth	Mid Single
Annual Operating Margin	High 60s
Effective Tax Rate	About 29%
Adjusted EPS Growth YoY	High End of Mid Teens

Sources: Company reports, FactSet, MSUSA estimates

## UNDERPERFORM Rated Stock: Detailed Outlook

### Western Union – Underperform, PT \$16

**Executive Summary:** We continue to see Western Union’s shares as overvalued and a net casualty of tax-reform. The competitive environment continues to get more difficult, key performance metrics remain weak, and compliance costs are increasing as a result of a major FTC-related settlement. The company was able to capitalize \$100 million of spending under its “WU Way” initiative in FY17, despite our view that much of this amount was recurring operating expenses. With stagnating revenue and no such expense shield in FY18, maintaining margins may be a tightrope act. If WU’s tax rate increases off of its currently below-normal rate, we believe the only safety net remaining to protect EPS growth will be buybacks.

**Upcoming guidance for 2018:** We expect FY18 adjusted EPS growth guidance to be flat YoY when excluding WU Way expenses from the FY17 base year. For each of the last two years, Western Union’s initial EPS guidance was for -5% to +2% growth, with the company eventually raising guidance during the year. While the company has had some cost take-outs as part of their WU Way initiative, revenue growth remains stagnant and we believe tax rates will nudge higher next year versus this year’s adjusted tax rate guidance of 12-13% (or 10-11% GAAP). We believe management will offer conservative guidance that implies YoY EPS growth of 0%.

**Estimates:** For the upcoming quarter, our revenue estimate is slightly below consensus, while our adjusted EPS estimate is \$0.36 versus consensus of \$0.44 as we include WU Way expenses in our estimate and street consensus does not. Our EPS estimates are FY17 \$1.67, FY18 \$1.60, and FY19 \$1.67. **We view WU as a net loser of tax reform but our estimates do not reflect a normalized tax-rate, as we are awaiting management to provide guidance. We estimate tax reform could adversely impact EPS by \$0.20/share.**

**2017 Stock Performance:** WU represented the worst performer within our coverage universe for 2017, with the shares down 12%. The stock took its biggest hit back in January, when the FTC filed a 65 page complaint against Western Union and fined it \$586 million for what it viewed as substandard compliance procedures and a lack of proper oversight of its agent network. The stock return on WU shares post-FTC announcement has essentially been flat, as the company’s largest business (C2C) continues to experience weakness at just over 1% revenue growth YTD.

**Business Segments and Performance:** The Company operates three business segments: Consumer to Consumer (79% of revenues), Business to Business (7%), and Other (14%).

- **C2C:** Revenues in this segment are up just ~1% constant currency YTD, with transaction growth at just 2.6% YTD. Performance has been dragged down by price reductions in the largest geography, North America (36% of segment revenues) as well as continued lower oil prices in the Middle East, Africa, and

South Asia (16% of segment revenues). North America witnessed a slowdown in constant currency revenue growth to just 1% in 3Q, down from levels that averaged ~7% in FY16. Price decreases implemented in parts of the market in 2H16 continue to negatively affect revenues in the North America region, and are an effect of the increased competition that has entered this market. We do not see this pricing pressure going away. In the MEASA region, revenues have been weak due to low oil prices continuing to negatively affect key send markets. Growth in this region was -8% YoY in 3Q.

- **B2B:** Segment revenues are down ~1% constant currency YTD. Approximately 3 points of this YoY decline has been due to the loss of XE.com, which switched to using Euronet on October 30, 2016. However, the rest of the business has stagnated, as Western Union has seen declines in sales of its hedging products throughout the year due to lower foreign exchange volatility.
- **Other:** Approximately 85% of this segment's revenues come from WU's bill payments businesses, with the remainder primarily comprised of retail money orders and retail FX. This segment has grown revenues 11% YTD constant currency, due to strong results from Speedpay in the U.S. and the Pago Facil walk-in bill payments business in Argentina.

**Recent Trends:** The company reported 3Q earnings on November 2, with revenues of \$1.405 billion (+2.0% YoY, +3% constant currency) beating consensus of \$1.390 billion, and EPS of \$0.52/share (+12.0% YoY) beating consensus of \$0.45 (we include \$0.01 of WU Way expenses). Aiding EPS was a tax rate of just 3%, which we believe accounted for ~\$0.05 of the beat. Consumer-to-Consumer (79% of total revenue) constant currency revenue growth stagnated at +1%, the same as 2Q, and constant-currency revenue growth in North America again decelerated, to just 1% YoY, down sequentially from 2Q's 3% growth, and well below 2016 levels of 7%. North America is C2C's largest geography, at 36% of revenues. In conjunction with 3Q earnings, the company increased GAAP revenue guidance to a low single digit YoY increase (from flat to low single digit growth prior), but constant currency revenue guidance remained unchanged at low single-digit growth. The lower end of adjusted EPS guidance was raised, to \$1.75-\$1.80 (2-5%), up from \$1.70-\$1.80/share (-1% to +5%) prior. Management guidance excludes \$95 million, or ~\$0.14, in WU Way expenses; however we include these expenses, which we consider operating.

**Valuation:** We view WU as a value-trap warranting a below-peer valuation multiple. Our \$16 per share price target represents 9.6x our FY19 EPS estimate of \$1.67 per share and reflects our concerns surrounding the various headwinds affecting the company's performance.

**Exhibit 20: Estimates vs Consensus**

Western Union WU	Next Quarter		FY 2017 E		FY 2018 E		FY 2019 E	
	MSUSA	Consensus	MSUSA	Consensus	MSUSA	Consensus	MSUSA	Consensus
Revenues (\$ mil)	\$1,374.5	vs. \$1,396.0	\$5,460.5	vs. \$5,477.9	\$5,489.6	vs. \$5,565.6	\$5,526.1	vs. \$5,659.2
EPS	\$0.36	vs. \$0.44	\$1.67	vs. \$1.83	\$1.60	vs. \$1.85	\$1.67	vs. \$1.91

Sources: Company reports, FactSet, MSUSA estimates

**Exhibit 21: Guidance Trends**

FY 2017 Guidance Trends (\$ in mil, ex per share)	After 4Q 2/9/2017	After 1Q 5/2/2017	After 2Q 8/3/2017	After 3Q 11/2/2017
Constant Currency Revenue Growth	Low Single	NC	NC	NC
GAAP Revenue Growth	Flat to Low Single Decrease	NC	Flat to Low Single Increase	Low Single Increase
Adjusted Operating Margin (ex Wu Way)	20%	NC	NC	NC
WU Way Expenses/share	\$0.15	NC	\$0.14	\$0.14
Adjusted EPS	\$1.63-\$1.75	NC	\$1.70-\$1.80	\$1.75-\$1.80
YoY	-5% to +2%		-1% to +5%	+2% to +5%

Sources: Company reports, FactSet, MSUSA estimates

## NEUTRAL Rated Stocks: Detailed Outlooks

### Blackhawk Network – Neutral, \$36 PT

**Executive Summary:** We remain on the sidelines until management updates guidance early next year for its US Retail Segment to reflect the impact from the recent renewal with Kroger. We believe the renewal will result in US Retail segment Adjusted revenue growth of -2% to +2% versus current 5-8% (medium-term outlook), which re-emphasizes HAWK's dependency on brick and mortar retail partners. We are encouraged with the recent CFO change, and believe the digital acquisition of CashStar positions HAWK well to gain share in the digital gifting channel, however the lack of specificity on Kroger and a spotty year-end track record informs our NEUTRAL rating.

**Upcoming guidance for 2018:** We expect FY18 adjusted EPS growth guidance in the low double digits-low teens, which includes approximately 4 points of growth from CashStar (announced late August; adds \$0.05-\$0.09 to EPS in FY18), and a slight tailwind from continued EMV recovery. Countering this growth will be drag from the recently renewed contract with Kroger, the company's largest distribution partner that accounts for 12.5% of total gross revenue for the company, which we estimate will adversely impact EPS by \$0.30/share. Despite the significant EPS drag from Kroger, the company's other two operating segments (Incentives and International) are growing well over 25% and account for 60% of adjusted EBITDA.

**Estimates:** For the upcoming quarter (Dec), our revenue estimate is slightly above consensus expectations (\$389.5 million vs. \$385.7 million); our adjusted quarterly

EPS estimate is \$0.02 above consensus (\$1.31/share vs \$1.29). We estimate adjusted EPS of FY17 \$1.66, FY18 \$1.87, and FY19 \$2.20. We believe the renewal with Kroger (announced November 2) was at lower economics than prior renewals due to a competitive bidding process, and that this will pressure existing medium-term guidance for the company's US Retail segment. We expect the Kroger renewal will result in US Retail Segment medium term revenue guidance declining materially, to -2% to +2%, versus 5%-8% currently. **We view HAWK as a beneficiary of tax reform but our estimates do not reflect any benefit; we estimate tax-reform could benefit EPS by approximately \$0.36/share.**

**2017 Stock Performance:** In 2017, shares of HAWK were down 5%, well below payment peers due to commentary on the 3Q (October 11) earnings call that noted competitive pressures within the company's US Retail channel caused by contract renewals with distribution partners. This commentary resulted in a one day decline in the stock of 25%. Several weeks later, on November 2 Blackhawk announced that this partner was not just a Top 10 partner, but their top partner, Kroger. The shares did not recover from this announcement, likely due to the lack of information quantifying the financial impact and which other renewals were outstanding.

**Business Segments and Performance:** The Company operates three business segments: US Retail (53% of adjusted operating revenues), Incentives and Rewards (32%) and International (16%). Revenue growth guidance for the US Retail segment was lowered throughout the course of the year, first due to underperformance at Cardpool, and later due to reduced foot traffic in-store due to eCommerce as well as competitive pressures on the Kroger contract renewal. International growth guidance was tweaked lower on the 3Q earnings call, which arguably was due to overly optimistic guidance provided at the beginning of the year. International segment revenues are on track to exceed +50% growth, versus initial guidance that implied prospects for up to 68% growth. The Incentives and Rewards segment has performed largely in line with initial expectations (FY17 revenue guidance was tightened on 3Q call) and is growing over 20%.

- **US Retail:** Segment revenue continues to witness open loop's recovery from 2016's EMV-related weakness, which resulted in over \$50 million in lost revenue in 2016, of which \$38 million was "recovered" in 2017. The unexpected competitive pressures for their largest retail distribution partner (Kroger), and management's decision to highlight reduced foot traffic in retail stores, lead to a lowering of this segment's FY17 revenue outlook to 7-12% (excludes Cardpool), from the prior range of 10-14% (excludes Cardpool). Cardpool is an online gift card exchange that was acquired in 2011 and generated some \$85 million of revenue in 2016, which management now projects to decline to \$65 million in 2017; as a result of this underperformance, management has disclosed they intend to sell this division.
- **Incentives and Rewards:** This segment has performed in line with expectations as the employee rewards and recognition business (called Achievers, acquired in 2015) continues to perform well and recently added General Motors as a new

client. Further, financial institution loyalty programs (clients include Discover, Wells Fargo, and Chase) continued to ramp during the most recent quarter. Management lowered segment adjusted operating revenue guidance for FY17 to a range of 16-20%, from 17-27% YoY growth, due to an expectation for lower telecom rebate volumes. Of note, Blackhawk's incentive segment helps manage the promotional, new account acquisition programs of four U.S. wireless brands (we believe these brands include AT&T, Verizon and Sprint), and wireless related promotional activity slowed in 2017. While segment guidance was lowered (to 16-20%), the lowered guidance is essentially in line with initial FY17 expectations for growth of 12-25%.

- International:** This segment continues to absorb acquisitions made in 2016, most notably Grass Roots, whose integration with Blackhawk Europe remains on track. Revenues in the most recent quarter grew over 90%, of which 29% was organic, and we note this organic growth accelerated sequentially from 2Q's 19%. Management lowered FY17 AOR growth guidance to a range of 49- 59%, from 51-68% prior.

**Recent Trends:** FY17 adjusted operating revenue guidance was lowered in conjunction with 3Q earnings on October 11 due to now excluding Cardpool (now asset held for sale) and softness within the US Retail channel, as well as "competitive pressures", which were eventually revealed to be a competitive bidding process over Blackhawk's largest distribution partner, Kroger. Management is guiding for FY17 adjusted operating revenues of \$940-\$981 million (18-23% YoY normalizing for Cardpool) versus \$1.028-\$1.141 billion prior, while adjusted diluted EPS of \$1.56-\$1.70 (9-19%) remains unchanged.

**Valuation:** In each of the past five years, HAWK has experienced periods of sudden, sharp multiple compression that resulted in EV/EBITDA multiples well below the 5-year average. However, these "multiple compression periods" have consistently averaged about three months before the multiple reverts back to the mean. We believe a more realistic multiple is closer to the 5-year average of 8.6x. At 8.6x, we arrive at our \$36 price target.

## Exhibit 22: Estimates vs Consensus

Blackhawk HAWK	Next Quarter		FY 2017 E		FY 2018 E		FY 2019 E	
	MSUSA	Consensus	MSUSA	Consensus	MSUSA	Consensus	MSUSA	Consensus
Revenues (\$ mil)	\$389.5	vs. \$385.7	\$1,046.0	vs. \$1,021.1	\$1,118.4	vs. \$1,111.1	\$1,216.8	vs. \$1,201.8
EPS	\$1.31	vs. \$1.29	\$1.66	vs. \$1.63	\$1.87	vs. \$2.00	\$2.20	vs. \$2.29

Sources: Company reports, FactSet, MSUSA estimates



**Exhibit 23: Guidance Trends**

(\$ in millions except per share)	4Q Earnings 2/15/2017	1Q Earnings 4/27/2017	2Q Earnings 7/19/2017	Acquisition Call 8/31/2017	3Q Earnings 10/11/2017
Adjusted Operating Revenue	\$1,028-\$1,141	NC	NC	NC	\$940-\$981
% YoY	16-28%	NC	NC	NC	18-23%
Adjusted EBITDA	\$225-\$250	NC	NC	NC	NC
% YoY	19-32%	NC	NC	NC	NC
Adjusted Diluted EPS	\$1.56-\$1.70	NC	NC	NC	NC
% YoY	9-19%	NC	NC	NC	NC

Sources: Company reports, FactSet, MSUSA estimates

## PayPal – Neutral, PT \$75

**Executive Summary:** Customer choice has yet to be a sustained driver of profitable customer engagement as there has been no tangible evidence of increased volumes from banks working more closely with PayPal. Regardless, YTD constant currency volume growth of ~27% is solid, aided by Venmo, which is up 98% YTD and comes with little to no revenue. YTD constant currency net revenue growth of ~20% was also impressive, although this has been assisted by lending to subprime consumers and cross-border pricing increases. The lending portfolio is to be sold to Synchrony Financial in FY18 in a profit-sharing agreement that will minimize PayPal's exposure to subprime in the event of rising defaults. EPS growth of 26% in 2017 has been also aided by a 65% YoY increase in pre-tax stock compensation/payroll taxes, which we estimate has added \$0.12, or ~12 points of growth. The ability to keep fixed costs growth in the mid-single digits is not a long term viable strategy in a highly competitive payments industry (of note, product development expense was flat YoY and the lowest growth of all expenses). None of these factors limited the share performance as investors embraced the upward revisions to guidance, and the shares increased 87% in 2017. A forward EPS multiple at an increasing premium to Visa and Mastercard leaves us on the sideline, particularly given PayPal's credit risk (reduced with an asset-light strategy, but not eliminated), materially lower operating margins vis-à-vis V and MA, and greater competitive threats.

**Upcoming guidance for 2018:** Management's initial outlook for FY18 (provided on its October 19 3Q earnings call), called for 20% growth in net revenue and non-GAAP operating income, implying flat operating margins. After management announced plans for its asset-light strategy on November 16 (Synchrony Financial has agreed to acquire the US consumer credit portfolio in 3Q17), management lowered FY18 net revenue growth guidance to 16.5%, reflecting lower revenues from this credit portfolio as per the agreement with Synchrony. However, PayPal's growth outlook for FY18 non-GAAP operating income was unchanged, as other PayPal businesses continue to perform well.

**Estimates:** Our net revenue estimate for the upcoming December quarter is slightly below consensus, while our adjusted EPS estimate of \$0.53 is \$0.01 above. We assume operating margins expand 62 bps YoY, and estimate the company's transaction expense remains level with 3Q's 97 bps, as per management commentary last quarter that it viewed 97 bps (+/- a few bps) as a sustainable level going forward. Our annual estimates are FY17 \$1.89 (25.9%), FY18 \$2.30 (21.9%), and FY19 \$2.70 (17.3%). **We view PYPL as a net loser of tax reform but our estimates do not reflect prospects for a higher tax-rate; we estimate tax-reform could adversely impact EPS by approximately \$0.18/share.**

**2017 Stock Performance:** Shares of PYPL increased 87% in 2018, almost double that of Visa and Mastercard, and represented the second best 2017 performer in our coverage, with Square being first. The appreciation in share price kicked into high gear beginning in April, which is when PayPal reported the first positive YoY operating margin result in six quarters. Since then, the company posted consecutive beat and raise quarters (albeit, some of the EPS beats could be attributable to non-GAAP add backs), and the stock responded accordingly.

**Business Segments and Performance:** The Company reports revenue in two areas: Transaction revenue (87%) and Other Value Added Services revenue (13%).

- **Transaction revenue:** YTD these revenues are up 19% YoY, as strong TPV volume (up 26% YoY, 27% constant currency) continues to drive this metric in spite of a falling take rate, which is down 170 bps YoY to 2.92% YTD. The take rate continues to decline, in part due to increased P2P/Venmo volume which comes with little-to-no revenue, which is part of a deliberate strategy by the company to support more engagement on its platform. Offsetting some of this take rate compression has been pricing actions (cross border) that the company has taken during the year, as PayPal looks to optimize its fees structure for certain corridors where it operates.
- **Other Value Added Services:** YoY, Other Value Added Services are up 19%. Given PayPal has estimated net revenue from credit will be approximately \$1 billion in FY17, we estimate credit comprises ~62% of Other Value Added Services revenue. And while management has not disclosed credit net revenue growth, it has pointed out credit as a main driver within this segment. With that being said, November 16 PayPal finally announced their asset light strategy, which involves Synchrony Financial agreeing to purchase PayPal's US consumer credit portfolio in 3Q17. According to the company, this will cut PayPal's exposure to credit-related earnings in half, while freeing up over \$1 billion per year of cash for the company. While reducing exposure to credit risk (and freeing up cash flow in the process) is a positive, losing partial access to this high-margin revenue stream pressures the rest of the business to step up its margin profile in order to achieve operating income growth guidance.

**Recent Trends:** As part of PayPal's 3Q earnings call (October 19), the company reported revenues and EPS ahead of expectations, as net revenue of \$3.239 billion

(+21%, or 22% FX neutral basis) beat consensus of \$3.178 billion, and adjusted EPS of \$0.46 beat consensus of \$0.43. The company continued to hold fixed costs in check (+4.8% YoY in 3Q) to avoid non-GAAP margin compression, as variable costs increased 33% YoY in 3Q. FY17 net revenue guidance was raised to \$12.920-\$12.980 billion (19-20%, or 20-21% FX neutral), while FY17 non-GAAP EPS guidance was increased to \$1.86-\$1.88 (24-25%). We believe management's increased outlook for FY17 pre-tax non-GAAP addbacks added \$0.02 to the EPS guidance increase. Later, in conjunction with PayPal's conference call in November regarding Synchrony's agreement to purchase PayPal's US consumer credit portfolio, PayPal updated its 4Q net revenue guidance to \$3.595 billion-\$3.655 billion (21-23%), up from prior guidance of \$3.570 billion-\$3.630 billion (20-22%), while leaving its non-GAAP EPS guidance unchanged at \$0.50-\$0.52 (19-24%). Medium-term (three-year) guidance remains for FX neutral revenue growth of 16-17%, with operating margin guidance of "stable to growing".

**Valuation:** We are increasing our PT to \$75, from \$64. Our \$75 PT represents 27.8x our FY19 adjusted EPS estimate of \$2.70. At current levels near 27x, PayPal's FY19 is multiple materially above Visa (23.9x) and Mastercard (24.1x), true payment networks with +50% margins (vs PayPal's ~20%), considerably less add-backs to adjusted EPS, and no exposure to credit.

#### Exhibit 24: Estimates vs Consensus

PayPal PYPL	Next Quarter		FY 2017 E		FY 2018 E		FY 2019 E	
	MSUSA	Consensus	MSUSA	Consensus	MSUSA	Consensus	MSUSA	Consensus
Revenues (\$ mil)	\$3,596.0	vs. \$3,628.7	\$12,946.0	vs. \$12,975.4	\$15,381.8	vs. \$15,393.5	\$17,831.8	vs. \$18,029.5
EPS	\$0.53	vs. \$0.52	\$1.89	vs. \$1.87	\$2.30	vs. \$2.26	\$2.70	vs. \$2.75

Sources: Company reports, FactSet, MSUSA estimates

**Exhibit 25: Guidance Trends**

<b>FY 2017 Guidance</b> (\$ in mil except per share)	<b>3Q Earnings</b> 10/26/2016	<b>4Q Earnings</b> 1/26/2017	<b>1Q Earnings</b> 4/26/2017	<b>2Q Earnings</b> 7/26/2017	<b>3Q Earnings</b> 10/19/2017
FXN Revenue Growth	16-17%	17-19%	NC	19-20%	20-21%
Current Spot Revenues	NA	\$12.450-\$12.650	\$12.520-\$12.720	\$12.775-\$12.875	\$12.920-\$12.980
Current Spot Rev Growth	NA	15-17%	15-17%	18-19%	19-20%
Non-GAAP EPS	NA	\$1.69-\$1.74	\$1.74-\$1.79	\$1.80-\$1.84	\$1.86-\$1.88
Non-GAAP EPS Growth	NA	13-16%	16-19%	20-23%	24-25%

<b>4Q Guidance</b>	<b>3Q Earnings</b> 10/19/2017	<b>Consumer Credit</b> 11/16/2017
FXN Revenue Growth	20-22%	NA
Current Spot Revenues	\$3.570-\$3.630	\$3.595-\$3.655
Current Spot Rev Growth	20-22%	21-23%
Non-GAAP EPS	\$0.50-\$0.52	NC
Non-GAAP EPS Growth	19-24%	NC

<b>FY 2018 Guidance</b> (\$ in mil except per share)	<b>3Q Earnings</b> 10/19/2017 *	<b>Consumer Credit</b> 11/16/2017 **
TPV Growth	Mid-high 20%	NC
Current Spot Rev Growth	Approx 20%	Approx 16.5%
Non GAAP Op Inc. Growth	Approx 20%	Approx 20%

Sources: Company reports, FactSet, MSUSA estimates

\*Expect GAAP Op Margin to expand in line with Non GAAP operating margin

\*\*Expect GAAP Op margin to expand at least in line with Non GAAP operating margin, ex one-timers

## Total System Services – Neutral, PT \$85

**Executive Summary:** We view several recent developments at TSS positively, but we remain on the sidelines as we view risk/reward as balanced at current levels. In December, TSYS somewhat removed one overhang when it announced an extension of its long-term agreement with Capital One, however no pricing details of this renewal were revealed, making the economics of the deal an unknown. The looming CFPB-related regulatory headwind beginning in April 2018 is a wild card for NetSpend, although an announcement by the CFPB's in December implies a possible delay in implementing this rule. We view the announced acquisition of Cayan positively and, in addition, we view the company as a potential beneficiary of tax reform, as its current effective tax rate is approximately 33%.

**Upcoming guidance for 2018:** We expect FY18 adjusted EPS guidance in the high single-low double digit range, similar to what was initially introduced this year (9-12% initial FY17 adjusted EPS growth guidance), with the potential for Cayan to add ~1 point to growth once closed (expected 1Q18). Current FY18 consensus is for 11% YoY growth. We note that part of the initial FY17 growth guidance was based on an expectation for the CFPB prepaid rule implementation to occur on October 1. TSS has outgrown that initial guidance given current guidance in the 18-20% range, in part due to the CFPB rule implementation being pushed out to April 1 2018.

**Estimates:** For the upcoming quarter, our revenue estimate is slightly below consensus expectations; however, our quarterly EPS estimate of \$0.80/share is a penny above street expectations. Our annual estimates are FY17 \$3.35, FY18 \$3.65, and FY19 \$4.12. While adjusted EPS growth is expected to be 20% this year, we believe this will moderate in 2018 to high single/low double digits given the revenue loss from, and increased costs of, complying with new CFPB rules. However, potential upside exists from incremental accretion from Cayan, as well as tax reform, given TSS' ~33% effective tax rate. **Our estimates do not include potential benefits from tax reform, but we view TSS as a net beneficiary of tax reform, and believe the company could benefit by approximately \$0.45 of EPS.**

**2017 Stock Performance:** In 2017, shares of TSS increased 61% and ranked TSS as the third best performer in our coverage universe, due to a consecutive string of beat and raise quarters, and possible expectations that TSS was in play and an acquisition target of FIS. The company introduced FY17 guidance on January 25 of \$3.05-\$3.15, which represented 9-12% and compared to then consensus expectations of \$3.14 share. The better than expected performance in 2017 led to consistent upward revisions to consensus expectations, with current consensus of \$3.34/share, representing 18-20% growth, above the initial guidance calling for LDD. The recent announced agreement to acquire Cayan has also served to improve the share price.

**Business Segments and Performance:** The Company operates three business segments: Issuer Solutions (47% of net revenue), Merchant Services (33%), and NetSpend (20%). Issuer Solutions provides outsourcing services to major credit card issuers, Merchant Services is the company's merchant acquiring business, and NetSpend is a consumer-facing reloadable prepaid business for the underbanked. Financial performance for all three segments has trended above expectations provided at the beginning of the year. The outperformance could be attributable to better operating margin expansion, particularly within the company's Merchant and Prepaid segments, consistent organic additions in new consumer credit card accounts on file, which is a primary revenue input for the company's Issuer Solutions segment, and better than expected performance in the prepaid unit (NetSpend), which began the year with several overhangs, including a pending regulatory rule change and tenuous negotiations with their largest distribution partner (ACE Cash Express), which elected to begin issuing their own proprietary prepaid product.

- **Issuer Solutions Segment:** The company won a large 90 million account on file consumer portfolio from Bank of America back in 2015, and despite lapping the benefits of that larger conversion in 2016, the organic growth in total accounts on file during 2017 has been a steady and consistent 10 million net new accounts each quarter for the past six quarters. This 10 million new account trend was all organic up until this quarter when the 10 million figure included a co-brand portfolio conversion from Capital One. Revenue growth in this segment historically has been mid-single digit and tied to overall industry growth in consumer credit card accounts in circulation. Segment performance this year appears to be coming in towards the lower end of the range in terms of revenue, offset by margin expansion that is trending higher versus initial expectations.

The focus has shifted towards value-added services, which are still a relatively small part of overall segment revenue, but a significant focus of management attention. Based on the year to date margin YoY improvement of over 200 bps, it appears the segment is on track to exceed guidance of +125 bps.

- Merchant Segment:** In terms of the Merchant segment, and the margin outperformance this year, the segment is now on pace to generate >150 bps of margin expansion for FY17, versus an initial expectation of ~50 bps. The margin improvement was attributable to the synergies extracted from the company's 2016 acquisition of TransFirst and the benefits afforded from a positive mix shift as TransFirst's portfolio of merchants were smaller (higher yields), and they also had an integrated offering. In December, TSS announced they would acquire Cayan for \$1.05 billion, an acquisition they expect to be growth accretive to Merchant revenues, as well as to overall company adjusted EPS, in the first year post-close. The acquisition furthers TSS' reach into the fast growing ISV industry.
- Prepaid Segment:** Performance out of the company's prepaid unit (NetSpend) has been trending well above initial guidance for only 3-5% top line growth. Entering the year, the company was facing a regulatory overhang (CFPB prepaid rule) that was expected to go into effect in April, and separately, management was surprised by the competitive intensity during tax-season that resulted in lower than expected volumes. However, these lower than expected volumes were only witnessed in the beginning of the tax-season, and volume activity picked up as the season progressed, ultimately finishing strong. The CFPB prepaid rule was subsequently pushed out a year (to April 1, 2018), which resulted in segment guidance improving to 6%-8%. Before mitigating factors, management expected the rule change to adversely impact revenue by \$80-\$85 million, or \$0.20/share. However, management had over two years to plan for this change, and has developed new products and other mitigation strategies that they expect will offset up to ½ of the total impact. Regardless, the delayed implementation date added about an additional \$20 million of revenue for FY17. Excluding the impact from the regulatory rule change, management's tone regarding industry growth for prepaid has changed dramatically since they acquired NetSpend several years ago, when the prepaid industry was growing at 20%. When management introduced guidance earlier this year, it indicated that growth in the prepaid industry had slowed considerably down to mid-single digits rates of growth. Net, there were a lot of moving parts this year in this segment, and expectations proved too conservative relative to actual performance. Netspend is on track this year to post at least 10% growth, and the margin performance was considerably better than expectations. For example, in the most recent quarter, segment margins for the prepaid unit were 700 bps above our model.

**Recent Trends:** Last quarter TSYs revenues ex reimbursables of \$852.8 million (8.0% YoY) beat consensus of \$842.7 million while EPS of \$0.88 (+24.1% YoY) beat consensus of \$0.81. The low end of FY17 net revenue guidance was increased, and the range is now \$3.345-\$3.395 billion (10-12%), up from \$3.315-\$3.395 billion



(9-12%), while adjusted EPS guidance was also raised, to \$3.29-\$3.35 (18-20%) from \$3.22-\$3.30 (15-18%). Prepaid is outperforming initial FY17 guidance, and is now on track to post 9%-11% revenue growth in FY17 vs. the 3%-5% guidance provided at May's analyst day. Part of this outperformance is due to the CFPB having pushed out the effective date of new regulatory change by six months to April 2018, and part has been due to segment outperformance.

**Valuation:** We are increasing our PT to \$85, from \$80. Our price target of \$85 per share represents 20.6x our FY19 EPS of \$4.12. This is above the three year average FY2 PE of 17.0x, but we view this valuation as reasonable given the expectation for better margins within the Issuer Solutions segment, as well as the recent acquisition of TransFirst which has added higher growth and higher margin business within the Merchant segment, and now, Cayan. In addition, we view prospects for tax reform as promising, and view some of the recent share appreciation as reflecting an expectation that EPS estimates for TSS will increase as a result.

### Exhibit 26: Estimates vs Consensus

Total System TSS	Next Quarter		FY 2017 E		FY 2018 E		FY 2019 E	
	MSUSA	Consensus	MSUSA	Consensus	MSUSA	Consensus	MSUSA	Consensus
Revenues (\$ mil)	\$839.5	vs. \$847.1	\$3,369.2	vs. \$3,377.9	\$3,701.2	vs. \$3,581.0	\$4,023.2	vs. \$3,857.9
EPS	\$0.80	vs. \$0.79	\$3.35	vs. \$3.34	\$3.65	vs. \$3.71	\$4.12	vs. \$4.23

Sources: Company reports, FactSet, MSUSA estimates

### Exhibit 27: Guidance Trends

FY 2017 (\$ in millions except per share)	After 4Q 1/24/2017	After 1Q 4/25/2017	Analyst Day 5/24/2017	After 2Q 7/25/2017	After 3Q 10/24/2017	Acquisition 12/18/2017
Net Revenues	\$3,275-\$3,375	\$3,295-\$3,395	NC	\$3,315-\$3,395	\$3,345-\$3,395	NA
Net Revenues Growth	8-11%	8-12%	NC	9-12%	10-12%	NA
Adjusted EPS to common	\$3.05-\$3.15	\$3.16-\$3.26	NC	\$3.22-\$3.30	\$3.29-\$3.35	NA
Adjusted EPS Growth	9-12%	13-17%	NC	15-18%	18-20%	NA
Shares	185.0	185.0	NC	NC	186.0	NA
Tax Rate	33-34%	NC	NC	NC	32-33%	NA

Sources: Company reports, FactSet, MSUSA estimates

## Vantiv – Neutral, PT \$80

**Executive Summary:** We like the shares and view the forthcoming merger with Worldpay positively. The current guidance for \$200 million of cost synergies appears conservative, and the guidance for pro forma organic net revenue growth of high single digits does not take into account any potential revenue synergies, which are expected to begin to materialize in mid-FY19. Finally, pro forma EPS accretion

guidance, which is for dilution in FY18 and accretion beginning in mid-2019, does not take into account any potential benefit from lower taxes.

**Upcoming guidance for 2018:** The merger is on track to close in mid-January, with new shares of the combined entity expected to begin trading on January 16. The company is likely to report 4Q results after this date, and thus give FY18 guidance for the combined entity. Existing guidance is for the merger to be “modestly” dilutive to FY18 pro forma EPS. Assuming 5% dilution to our current standalone estimate for Vantiv of \$3.70 results in a pro-forma EPS of ~\$3.50 for FY18.

**Estimates:** For the upcoming quarter, our revenue estimate is slightly below consensus expectations and our adjusted EPS estimate of \$0.93 is \$0.02 below consensus. Our annual estimates are FY17 \$3.34 (22.4%), FY18 \$3.70 (10.8%), and FY19 \$4.17 (12.6%). **Our estimates do not include any potential impact of tax reform. We do not view Vantiv as benefitting from tax reform, and estimate a potential negative impact of \$0.27 per share.**

**2017 Stock Performance:** Shares of VNTV increased 23% in 2017, ahead of the broader S&P but lagging fellow merchant acquirers GPN and TSS. After a strong January and February that saw shares increase 10%, the stock hit a lull after 1Q earnings in April, when the Merchant segment (85% of net revenue) witnessed a sequential organic slowdown in net revenue growth that was larger than expected (to 10% in 1Q, down from 4Q’s 13.6%). Management pointed out that Vantiv’s big box retail partners experienced pressure that resulted in a 1-2% hit to net revenue growth. The stock remained in a lull until July, when Worldpay first issued a statement noting it had received preliminary approaches from Vantiv and JPMorgan Chase in relation to a potential acquisition of the company, sending the shares higher.

**Business Segments and Performance:** The Company operates two business segments: Merchant (85% of net revenue) and Financial Institutions (15%).

- **Merchant segment:** Revenue YTD is up 15%; organic revenue growth YTD is closer to 10% (was 10% in 1Q, “low-double digits” in 2Q, and “high single digits” in 3Q). The 10% organic growth, while solid, is well below last year’s levels that were closer to 15%. In part this is due to some lingering weakness at the company’s big box retail clients, and more recently, growing over difficult comps from last year in the ISO channel. On the positive side, Vantiv’s “high growth” merchant channels (which are now over 50% of segment revenue) continued their strength and grew +20% in the most recent quarter (mid-high teens organically). Also in 3Q we note the acquisitions of Moneris (closed December 2016) and Paymetric (closed in May 2017) combined to contribute 7 points of revenue growth. Organically, on a go forward basis, management sees the segment as a whole growing at an organic rate in the high-single digits.
- **Financial Institutions segment:** Revenues are down 7% YTD in this segment as it continues to grow over EMV-related benefits from last year, and only recently lapped compression from the Fifth Third Bank contract renewal (lapped in 2Q). For the upcoming 4Q, management has guided for a net revenue growth

expectation of a mid-single digit decline YoY. Heading into FY18, management's expectation is for 1Q18 YoY net revenue growth to be down upper single digits, 2Q18 YoY growth to be relatively flat, and then growth in the second half of the year to be in the low single digits as the Capital One deconversion is lapped.

**Recent Trends:** In 3Q, the Merchant segment grew 15.9%, in line with 2Q's 15.8%, however organic growth slowed to high single digits from low double, due to the ISO channel (~20% of segment) lapping difficult comps. On the positive side, the higher growth channels within this segment (+50% of segment) grew over 20% (mid-high teens organically). Overall results beat expectations, as net revenue of \$554.2 million (13.0%) beat consensus of \$551.2 million while adjusted EPS of \$0.90 (26.5%) beat consensus of \$0.89. The company also raised the bottom end of both FY17 net revenue and adjusted EPS guidance, as guidance calls for FY17 net revenue of \$2.110-\$2.120 billion (11%) versus \$2.100-\$2.120 billion (10-11%) prior, and adjusted EPS of \$3.34-\$3.36 (22-23%) vs \$3.31-\$3.36 (21-23%) prior. Regarding Worldpay, this merger is expected to close in mid-January 2018, with management's existing outlook for the merger to be modestly dilutive to Vantiv's pro forma adjusted net income per share in 2018, and accretive to Vantiv's pro forma adjusted net income per share in 2019 and thereafter.

**Valuation:** We are increasing our PT to \$80, from \$75. Our \$80 PT is 19.2x our FY19 estimate of \$4.17, above the three-year average of 17.9x. We view 19.2x as reasonable given an improving mix within the merchant portfolio (increasing composition of faster-growth businesses) and industry leading operating margins (at 44%, ~1.5x higher than other processors that average 17.0-20.0x PE).

### Exhibit 28: Estimates vs Consensus

Vantiv VNTV	Next Quarter		FY 2017 E		FY 2018 E		FY 2019 E	
	MSUSA	Consensus	MSUSA	Consensus	MSUSA	Consensus	MSUSA	Consensus
Revenues (\$ mil)	\$554.7	vs. \$562.5	\$2,109.1	vs. \$2,117.4	\$2,307.4	vs. \$2,314.0	\$2,543.0	vs. \$2,520.1
EPS	\$0.93	vs. \$0.95	\$3.34	vs. \$3.35	\$3.70	vs. \$3.73	\$4.17	vs. \$4.19

Sources: Company reports, FactSet, MSUSA estimates

### Exhibit 29: Guidance Trends

FY 2017 Guidance (\$ in mil ex EPS)	4Q	1Q	2Q	3Q
	2/3/2017	4/26/2017	8/8/2017	10/26/2017
Net Revenue	\$2,080-\$2,120	\$2,080-\$2,120	\$2,100-\$2,120	\$2,110-\$2,120
Growth	9-11%	9-11%	10-11%	11%
GAAP EPS	\$1.61-\$1.68	\$1.51-\$1.58	\$1.31-\$1.36	\$1.42-\$1.47
YoY	22-27%	14-20%	-1% to +3%	NA
Adjusted EPS	\$3.14-\$3.21	\$3.22-\$3.29	\$3.31-\$3.36	\$3.34-\$3.36
Adjusted EPS Growth	15-18%	18-21%	21-23%	22-23%

Sources: Company reports, FactSet, MSUSA estimates

## Price Target Calculation and Key Risks

### *Blackhawk Network Holdings Inc.*

#### Valuation

In each of the past five years, HAWK has experienced periods of sudden, sharp multiple compression that resulted in EV/EBITDA multiples well below the 5-year average. However, these “multiple compression periods” have consistently averaged about 3 months before the multiple reverts back to the mean. We believe a more realistic multiple is closer to the 5-year average of 8.6x. At 8.6x, we arrive at our \$36 price target.

#### Risks

1. Seasonality is a risk with Blackhawk Network. In the past five years, 40% of the company’s adjusted operating revenues have come during the fourth quarter due to the fact that a majority of Blackhawk’s best-selling products (closed loop prepaid cards) are sold during the holiday season. In addition, the company’s fourth quarter is actually a 16-17 week period, versus 12 weeks for the first three quarters, adding to the seasonality.
2. Three partners comprise 23% of revenues. Revenue generated from card activations and other sales at Blackhawk’s three largest distribution partners, Kroger (11.8%), Albertson's/Safeway (6.6%), and Giant Eagle (5.0%) totaled over 23% of total operating revenues in 2016.
3. Security breaches have put the entire industry on alert. Companies like Blackhawk continue to be a focus of criminals, given the amount and type of data that card processing entities process.

### *Global Payments Inc.*

#### Valuation

Our price target of \$115 represents 21.2x our FY19 adjusted EPS estimate of \$5.43/share. This is above the company’s three-year average FY2 PE of 19.1x, but we believe a premium to this average is warranted given Heartland adds a highly productive sales force, GPN’s history of assimilating acquisitions, and residual pricing changes within the legacy Heartland portfolio over time.

#### Risks

- 1) The company’s share price can fluctuate depending on operating margin performance, which can be negatively affected by the ISO model that remains within the company’s largest segment, North America.
- 2) Merchant processors store valuable credit and debit card information and as a result are targets of international cyber terrorists.

### *Mastercard Incorporated*

#### Valuation

Our price target is \$175 per share. We believe the shares are deserving of a premium multiple given their superior growth prospects, global addressable market, acceptance network, and brand. Our PT of \$175 represents 28.5x our FY19 EPS estimate of \$6.15 per share, or 27.6x pro-forma tax reform (assume 25% vs. 28% tax rate). While a 28.5x multiple is above the company’s 5-year average of 23.8x, it is consistent with its average relative to the S&P 500, averaging 152% of the S&P 500.

### **Risks**

- 1) Regulatory authorities around the world continue to challenge the level of fees paid by merchants for accepting cards. Any downward pressure on interchange fees could influence the behavior of MasterCard issuers (e.g. drop rewards), which in turn could change consumers' willingness to use a MasterCard branded card/payment device.
- 2) Recent sanctions in Russia led to new Russian laws requiring payment networks like MasterCard to establish "on-soil" operations in the country. The longer term impact of this new law is still being determined, and while this appears to be an isolated incident, the creation of country-specific networks could pose a threat to MasterCard.
- 3) Lastly, the US and Europe combined represent a majority of MasterCard's payment volume and therefore a prolonged reduction in consumer spending patterns in any of these two geographies poses a risk.

### ***PayPal Holdings, Inc.***

#### **Valuation**

Our \$75 PT represents 27.8x our FY19 adjusted EPS estimate of \$2.70. At current levels near 27x, PayPal's FY19 is multiple materially above Visa (23.9x) and Mastercard (24.1x), true payment networks with +50% margins (vs PayPal's ~20%), considerably less add-backs to adjusted EPS, and no exposure to credit.

#### **Risks**

- 1) The company's take rate will be under pressure as it expands into larger merchants that receive volume discounts.
- 2) The increasing roster of mobile payment competitors, particularly those from large and established companies, are a growing risk to the company.
- 3) Other risks include threats to security and the continuing need for investment in the business

### ***SEI Investments Company***

#### **Valuation**

Our \$90 price target represents 27.6x our FY 2019 estimate of \$3.27. Adjusting for \$4.25 per share of cash, valuation declines to 26.3, above the company's three-year average FY2 PE of 20.5x. SEI has a solid balance sheet (\$685 million in cash, \$40 million in debt), historic strong cash flow generation, and a history of returning capital to shareholders, all of which serve to support the share price.

#### **Risks**

- 1) Failure to convert US prospects in the pipeline onto the SEI Wealth Platform is the primary risk in our view.
- 2) Given the asset management component of SEI, we caution that a significant portion of the company's revenue is tied to market valuations and therefore quarterly financial performance has historically fluctuated with the broader markets.
- 3) Delays or complications in implementing large scale wins could reduce demand for SWP from other potential clients.

### ***Square, Inc.***

#### **Valuation**

We utilize a discounted cash flow model to derive our \$40 share price value for Square. We assume Square grows GPV to \$181 billion in 2022, resulting in net revenue of \$2.6 billion (22% CAGR), and an adjusted EBITDA margin of 39%, in line with peer processors and management guidance for 500 bps of adjusted EBITDA margin expansion annually.

#### **Risks**

- 1) The company's main merchant category is micro-merchants, which carry the highest fraud rates of any size category. We believe this leaves the company open to potentially large one-time loss events that could negatively affect financials.
- 2) In addition, any sluggish macroeconomic environment that results in slowing of growth small to mid-sized (SME) businesses could prove negative to financials. Also, as a merchant processor, the company stores valuable credit and debit card information that makes the company a target of cyber criminals.

### ***The Western Union Company***

#### **Valuation**

We view WU as a value-trap deserving of a below-peer valuation multiple. Our \$16 per share price target represents 9.6x our FY19 EPS estimate of \$1.67 per share and reflects our concerns surrounding the various headwinds affecting the company's performance.

#### **Risks**

1. A risk to our thesis is that the company is able to maintain premium pricing in the face of increasing and lower-priced competition
2. The company's WU Way initiative could lead to a reduction in expenses sooner than what is expected, which could lead to accelerated margin expansion
3. The currently low tax rates the company is exhibiting could be maintained, despite guidance for increasing tax rates

### ***Total System Services, Inc.***

#### **Valuation**

Our price target of \$85 per share represents 20.6x our FY19 EPS of \$4.12. This is above the three year average FY2 PE of 17.0x, but we view this valuation as reasonable given the expectation for better margins within the Issuer Solutions segment, as well as the recent acquisition of TransFirst which has added higher growth and higher margin business within the Merchant segment, and now, Cayan. In addition, we view prospects for tax reform as promising, and view some of the recent share appreciation as reflecting an expectation that EPS estimates for TSS will increase as a result.

#### **Key Risks**

1. Consumer preference for debit versus credit could have a negative effect on the company's core issuing processing business (majority is credit card related).
2. Any slowdown in spending would put pressure on transaction growth rates.
3. A deconversion of a major client would have a similar negative effect on company revenues.
4. Additional regulation within the prepaid industry could have negative effects on TSYS' prepaid unit, NetSpend.

### ***Vantiv, Inc.***

#### **Valuation**

Our \$80 PT is 19.2x our FY19 estimate of \$4.17, above the three year average of 17.9x. We view 19.2x as reasonable given an improving mix within the merchant portfolio



(increasing composition of faster-growth businesses) and industry leading operating margins (at 44%, ~1.5x higher than other processors that average 17.0-20.0x PE).

#### Key Risks

- 1) Despite Vantiv's favorable mix of merchants in the everyday spending category, prolonged and sluggish consumer spending would weaken the company's core base of revenues.
- 2) All of Vantiv's revenues come from the United States, and while Vantiv is taking measures to grow within the U.S. market, its lack of exposure to international markets could prove to be a strategic gap over the longer term should it remain unaddressed
- 3) Merchant processors tend to be a focus of criminals, given the amount and type of data that merchant acquirers process.

### *Visa Inc.*

#### Valuation

Visa's unique secular tailwinds (cash to electronic), high barriers to entry (acceptance network, two sided market dynamics), massive addressable market and revenue visibility support a premium multiple, in our view. Our \$135 price target is 28.7x our FY17 (Sep) EPS estimate of \$4.70 per share.

#### Risk

- 1) Regulatory authorities around the world continue to challenge the level of fees paid by merchants for accepting cards. Any downward pressure on interchange fees could influence the behavior of Visa issuers (e.g. drop rewards), which in turn could change consumers' willingness to use a Visa branded card/payment device.
- 2) Recent sanctions in Russia led to new Russian laws requiring payment networks like Visa to establish "on-soil" operations in the country. The longer term impact of this new law is still being determined, and while this appears to be an isolated incident, the creation of country-specific networks could pose a threat to Visa.
- 3) Lastly, a cautious U.S. consumer (US is >50% of Visa payment volume) could continue to create a mixed economic growth backdrop as U.S. consumers direct excess cash to debt reduction as opposed to consumption.

### *WEX Inc.*

#### Valuation

Our PT of \$180 represents 24.0x our FY19 EPS estimate of \$7.50/share. We view 24.0x as reasonable given our view that EPS growth will average high-teens in FY18 and FY19, and the fact WEX could be a major beneficiary of tax-reform. The company's plan to globalize its fleet and online travel offering, diversification into less fuel sensitive and/or higher growth areas, such as US healthcare payments, and ongoing pricing modernization activities, are beginning to provide a realistic path towards sustained high-teen earnings growth.

#### Risks

- 1) Revenues are affected by fuel prices, and the company currently does not have any fuel price hedges in place. The lack of fuel hedges in 2017 is a risk to our estimates if actual average fuel prices decline below our model.

2) Even during times when the attempts to isolate the price risk associated with retail gasoline price movements via hedging, they cannot hedge the risk associated with transactional activity or the average gallons purchased per transaction. As a result, any deterioration in either the average number of fuel transactions per vehicle or the average number of gallons purchased per transaction could have an impact on company revenues.

**Companies Mentioned (prices as of 1/03 )**

Alibaba Group Holding LTD (BABA \$184.00)	AT&T (T- Buy \$37.65)
Bank of America (BAC)	CAPITAL ONE FINANCIAL CORP (COF \$99.44)
Chevron Corp (CVX \$128.51)	Ctrip.Com International Ltd (CTRP \$46.60)
DISCOVER FINANCIAL SERVICES (DFS- Not Rated)	Expedia Inc (EXPE \$125.17)
Fidelity National Information (FIS- Not Rated)	FLEETCOR TECHNOLOGIES INC (FLT- Not Rated)
JPMorgan (JPM \$108.06)	Kroger (KR \$27.85)
Netflix, Inc. (NFLX- Not Rated)	PRICELINE GROUP INC/THE (PCLN- Not Rated)
REGIONS FINANCIAL CORP (RF- Not Rated)	Sprint Corporation (S- Neutral \$5.90)
Synchrony Financial (SYF \$39.12)	Tencent Holdings Ltd (700 HK HK\$422.20)
Verizon Communications (VZ- Buy \$52.43)	WELLS FARGO & CO (WFC- Not Rated)
Worldpay Group PLC (WPG LN)	

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<b>Underperform:</b>	Stocks for which the anticipated share price falls by 10% or more.
<b>RS:</b>	Rating Suspended - rating and price objective temporarily suspended.
<b>NR:</b>	No Rating - not covered, and therefore not assigned a rating.

### Rating Distribution

(As of 1/03 )	% of coverage	IB service past 12 mo
Buy (Buy)	45.60%	48.57%
Hold (Neutral)	49.19%	43.05%
Sell (Underperform)	5.21%	50.00%

For disclosure purposes only (NYSE and FINRA ratings distribution requirements), our Buy, Neutral and Underperform ratings are displayed as Buy, Hold and Sell, respectively.

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