Q3 2014 – 23rd Edition

This report is a compilation and analysis of US data. Its intent is to provide a deeper understanding of the Payments Industry and therefore, the ability for ETA members to better assess their position in the current economic climate. This is the 23rd edition of the quarterly released report. The views expressed are those of ETA/TSG and are subject to change. They are shared for educational purposes only. The information is based upon information we consider reliable, but its accuracy and completeness cannot be guaranteed.

This report is a member benefit provided to the ETA's 500+ worldwide member companies.

U.S. Economic Indicators Report

Featuring: *The Payments Top 5*

1 Data Breaches

Facts: So far, through September, over 75M records have been exposed in 2014, due to a total of 568 breaches according to research from the Identity Theft Resource Center. While this number will continue to grow, this year's most visible breach to date, Home Depot, follows on the heels of last year's Target debacle. Target had over 40M credit/debit cards stolen from a two week period during the 2013 holiday shopping season, while Home Depot, breached between April and September 2014, estimates 56M cards were stolen – making it the largest retail card breach on record. The aftermath for Target has been a sales drop-off, stock slump, the stepping down of CEO Steinhafel, and current breach costs of nearly $150M. Home Depot's breach, though larger, expects less pain than Target due to how quickly they announced the breach and the time of year that it occurred (just past the home improvement season). Other recent breaches to note: Jimmy Johns (216 stores), Goodwill (330 stores), UPS (51 stores), SuperValu (over 200 stores), P.F. Chang's (33 restaurants), and Michaels (31 stores).

Opinion: Clearly cybercriminals are getting more creative this year, the problem is retailers (and their security infrastructure) are slow to keep up. While a new data breach is popping up weekly, EMV (discussed below) is seeing a rise in awareness with both merchants and consumers. The recent high profile data breaches have turned the public eye towards the payments industry, particularly merchant acquiring companies. To combat, acquirers must educate merchants, encourage PCI compliance, complete a risk analysis, manage passwords, ensure POS security, and prepare a basic incident response plan.

2 PayPal Split

Facts: At the end of September, it was announced that PayPal would be splitting away from eBay, creating two separate publicly traded companies. According to both parties, this will allow for them to take advantage of new opportunities to grow. eBay's Marketplaces contributed to over 30% of PayPal's annual revenues, and while last year's Marketplaces had $9.9B in revenue (higher than PayPal's $7.2B), PayPal's annual revenue growth outpaced Marketplaces. The spin-off is expected to be completed in the second half of 2015. eBay's CEO John Donahoe will step down and Devin Wenig will take his place. American Express executive, Daniel Schulman, will take the helm at PayPal.

Opinion: PayPal splitting from eBay is a smart move, this allows the entities to each take advantage of more potential opportunities presented to them from the ever-changing payments ecosystem. Also, PayPal will now be able to compete more aggressively with disruptive startups, as well as bigger companies such as Apple. This spin-off will also provide PayPal with wide media coverage as Apple and other industry players have seen significant coverage in recent months. The question that comes up is, will PayPal become a buyer of payments companies in the market, or will PayPal become a purchase target? eBay on the other hand will see slower growth without PayPal as it continues to face competition from Amazon, Google, and Alibaba.

INTRODUCTION: The Payments Top 5

3 Apple Pay

Facts: Apple finally announced their foray into payments in September via Apple Pay. Apple Pay is a contactless payment technology utilized through the NFC chips within Apple Watch and iPhone 6, allowing for one touch pay with Touch ID. Consumers can add iTunes card data, or take a picture of a new card to add, which is then stored in Apple's Passbook. A unique Device Account Number is assigned, encrypted and securely stored in the devices 'Secure Element' instead of using your actual credit/debit cards numbers – actual card data is never shared with merchants. Apple Pay will roll out later in October at 220,000 stores in the U.S. by merchants such as BabiesRUs, Bloomingdale's, Disney, Macy's McDonald's, Nike, Panera, Petco, Staples, Subway, and Walgreens. Apple also has in-app partners such as Groupon, OpenTable, and Target.

Opinion: This action by Apple, just behind the major announcement of Amazon entering the payments space in August, brings two of the largest technology heavyweights squarely into the merchant payments arena. Apple's entry is consumer-centric while Amazon's is merchant accepting focused. Also, Apple's step into the payments space was well planned and structured to bring the right relationships together; e.g., 800 million potential users from iTunes, major merchants (online and offline) to introduce the initiative, and card network/bank partnerships. Finally, more consumers are aware of the idea of mobile payments and more merchants have means of accepting those payments now than before. This is especially true from the merchant perspective given the upcoming EMV liability shift (Oct. '15) - it will be less of a hurdle to only have to upgrade terminals once for both EMV and NFC acceptance. NFC has been in the market for many years with little adoption from consumers and may now get a jump start from Apple's influence.

Amazon / Square 4

Facts: In August, Amazon announced their competitor to Square's dongle, called Amazon Local Register. Local Register accepts credit/debit cards with mobile phones or tablets using Amazon's dongle. It is compatible with all major card brands and usable on Fire OS, Android, and iOS. To undercut Square, Amazon is offering a 1.75% swipe fee until Jan. 2016, which will then increase to 2.5%. The service provides next-day deposits or the ability to spend at Amazon within minutes. Square on the other hand is continuing to define who they are, recently raising $150M on a $6B valuation. Their marketplace started accepting Bitcoin, they pulled their Wallet and launched Order to allow another way to order food, added online appointment booking, the ability to offer cash advances, and new tools to provide analytics to small businesses. Square also acquired food delivery service, Caviar.

Opinion: More than two-thirds of the 27M small businesses in the U.S. do not currently accept credit/debit – penetration of these mostly sole proprietor, non-accepting micro-merchants is still low. Square has made a dent as over 3M businesses are now using Square as of February 2013, however Square is likely not cannibalizing the SME market from traditional merchant acquirers; most of their merchant base is a merchant sub-set (micro-merchants) that was not pursued by much of the merchant acquiring industry. Amazon is looking to make waves as they undercut both Square and PayPal. With rumors of a cash crunch at Square, this will place further pressure on the company. Who will win out with the micro-merchants? Amazon might have the easier path to success as they have two advantages over Square: a built-in distribution channel and other products to sell beyond payments related services (i.e. office supplies) to these micro-merchants.

5 EMV

Facts: EMV, also known as "Chip and PIN" or "Chip and Signature," is a global standard smart-chip technology named after its original creators, Europay International, MasterCard and Visa. Payment instruments such as cards and smartphones are embedded with an encrypted chip that stores and protects cardholder data. EMV-enabled devices read data stored in the chip to determine the validity of the card, providing increased fraud protection. All non-petroleum merchants must be able to accept a presented EMV card as of October 2015 or face being held liable for any subsequent counterfeit fraud committed with that card, thus the liability shift.

Opinion: Mag-stripe cards aren't going away soon. While the U.S. is the last major market to migrate to EMV, all regions of the world are still in migration status with varying levels of EMV Chip cards (contact & contactless) and varying levels of EMV equipped POS. The best equipped market is Europe, the worst is the U.S. where an estimated 5% or less of merchants are equipped with an EMV ready terminal. Until all cards and all POS terminals migrate to EMV, cards will continue to be issued with both chip and stripe. Considering U.S. history of migrations to PCI Compliance and acceptance of other technologies, it is doubtful that there will be significant migration by the October 2015 liability shift in the U.S.

The Payments Top 5 has a significant impact on payments value because of media coverage and Wall Street. The following pages provide additional insight into Payments Indicators affecting the industry.

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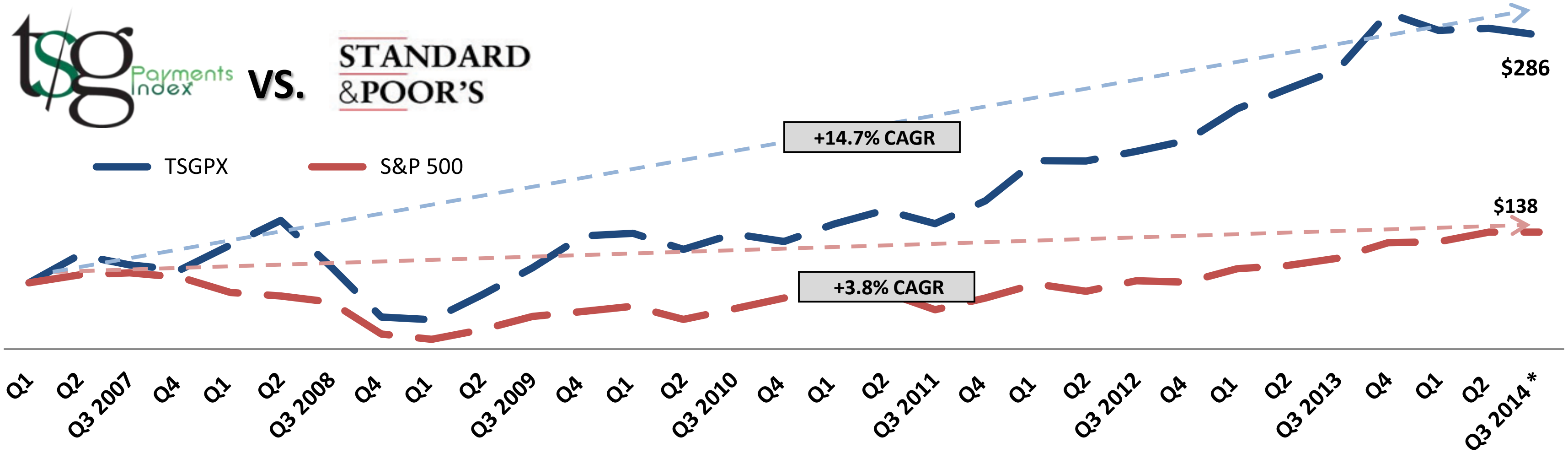
Payments Indicators: Payments Companies Vs. S&P 500

The chart below displays the performance of a $100 investment in an index of selected payments companies which represent the "TSG Payments Index" - this index is calculated on a value weighted basis using market capitalization and is compared to the S&P 500 which is also calculated using the same methodology. ***A $100 investment in the TSGPX in Q1 2007 would now be valued at $286, as compared to $138 if invested in the S&P 500.***



tsg Payments Index	Heartland Payment Systems	vantiv	global payments	TSYS	Payment Data Systems
	Acquirer	Acquirer	Processor	Processor	Processor
Planet Payment	Wright Express	VeriFone	NCR	Diebold Innovation Delivered	ACI payment systems
Processor	Specialty Processor	POS Equipment Provider	POS Equipment Provider	Hardware/Software Prov.	Technology Provider
fiserv.	FIS	FUNDtech	Euronet Worldwide	jack henry & Associates Inc.	VeriSign
Technology Provider	Technology Provider	Technology Provider	Technology Provider	Technology Provider	Data Security VAR
VISA	MasterCard	DISCOVER Financial Services	American Express	GCA gcainc.com	Tier
Payment Networks	Payment Networks	Payment Networks	Payment Networks	Global Cash Access	Direct Billing
Western Union	Alliance Data	green dot	netSpend	3PEA International	Cardtronics
Money Transfer	Loyalty Solutions Prov.	Prepaid Issuer	Prepaid Issuer	Prepaid Solutions	ATM Operator

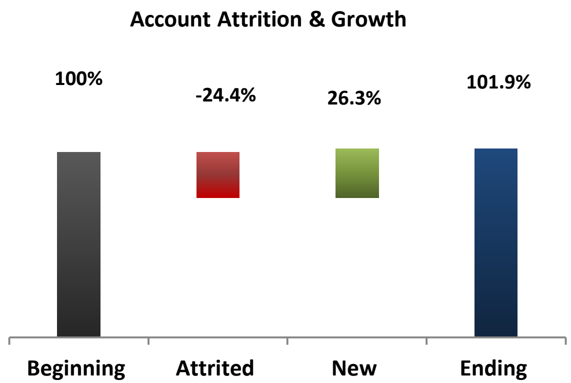
The chart above displays the performance of $100 investment in an index of the following listed companies which represent the "TSG Payments Index" - this index is calculated on a value weighted basis using market capitalization and is compared to the S&P 500 which is also calculated using the same methodology. This analysis does not include affects of re-invested dividends. While some of the companies listed in TSG's Payments Index do not meet the requirements to be a S&P 500 listed company (S&P listed companies have a market cap of at least $3 billion), the S&P 500 served to be the best comparable index to TSG's Payments Index since it is one of the most commonly used benchmarks for the overall U.S. stock market. In fact, many consider it to be the definition of *the market.* The companies included in TSG's Payments Index met the criteria that at least 50% of their revenues were produced from electronic payments products or services. Ingenico and Gemalto have been removed due to inclusion of NetSpend and Cardtronics as well as their being traded on non-US exchanges. As of Q4 2011 Fundtech has been removed due to an acquisition and Tier Technologies' name has been changed to Official Payments. Vantiv was added to the index as of Q1 2012. 3PEA International was added in Q1 2013. LML Payment Solutions and Transaction Network Services were removed as of Q1 2013 due to acquisition.

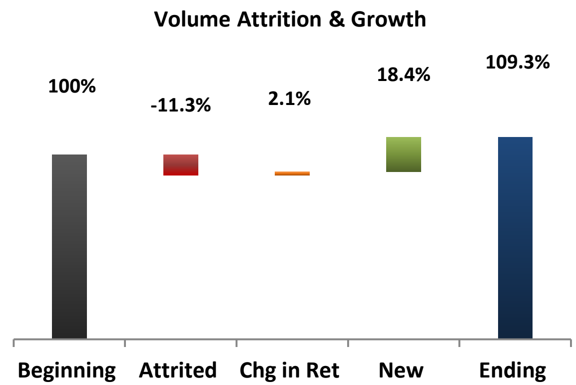
*Calculated using closing data through September 25, 2014.

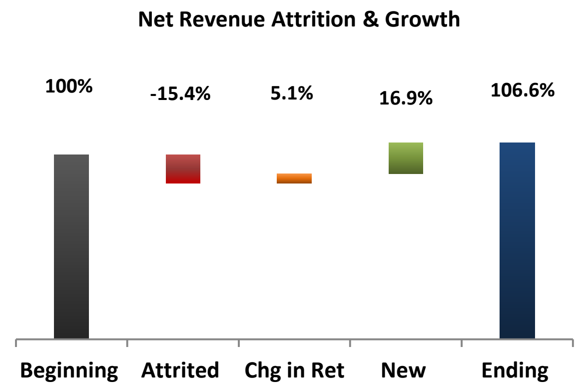
Payments Indicators: Attrition Summary

The balance between merchant attrition and growth is the key to portfolio management and profitability. The charts below show the current market rates of both attrition and growth. For example, the left chart shows that the market rate for account attrition was -24% in Q2 2014, meaning that 24% of the merchants left the collective TSG portfolio during that period. However, new sales led to a 26% increase in the size of the portfolio, netting out for a final growth rate of 1.9% during Q2.

Average – Q2 2014 Attrition & Growth







Attrition and growth definitions:

Attrited Account:	An account is considered attrited if net revenue in the current period is \$0.00 and was ≠ \$0.00 in the same period of the prior year
Account Attrition:	Total attrited accounts in given period divided by total portfolio active accounts from same period of the prior year
Volume Gross Attrition:	Total volume of attrited accounts from given period of prior year divided by total portfolio volume from same period of the prior year
Change in Ret Acct Volume:	Annual volume change/growth of retained (non-attrited) accounts for given period divided by total portfolio volume from same period of the prior year
Volume Net Attrition:	Sum of volume gross attrition and change in retained account volume divided by total portfolio volume from same period of the prior year
Net Revenue Gross Attrition:	Total net revenue of attrited accounts from given period of prior year divided by total portfolio net revenue from same period of the prior year
Change in Ret Acct Net Revenue:	Annual net revenue change/growth of retained (non-attrited) accounts for given period divided by total portfolio net revenue from same period of the prior year
Net Revenue Net Attrition:	Sum of net revenue gross attrition and change in retained account net revenue divided by total portfolio net revenue from same period of the prior year

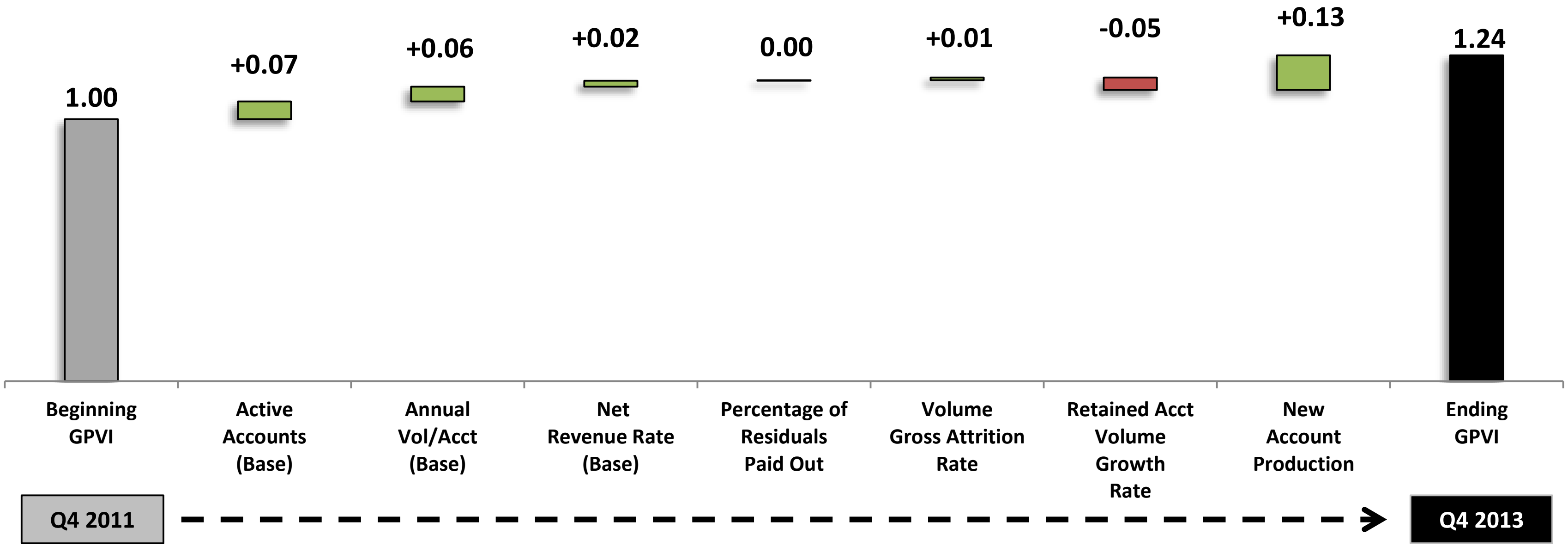
**Numbers may not sum due to rounding*
Source: TSG Merchant level database of 2.2 million merchants

Payments Indicators: Gross Profit Value Index (GPVI)

Using TSG's market leading valuation expertise combined with data from its proprietary merchant database, TSG has created an index representing the overall movement in the value of the collective TSG merchant portfolio of 2.2 million merchants. This index is titled the GPVI (GPVI = Gross Profit Value Index) and its purpose is to display changes in the collective value indicators, giving a picture of the U.S. merchant acquiring market's value-change.

MPPS GPVI Growth Bridge

The Growth Bridge below is a visual representation of different levers and their impact on the final change in value. Starting at 1.0 (Q4 '11) and working to the right will result in a final value of 1.24 (or 24%).



DETAILS OF GPVI CALCULATION

TSG created this index, the GPVI, by valuing the future gross profit generated from the TSG portfolio on a quarterly basis and has indexed this value to 1 beginning in Q4 2011. The following bullet points will illustrate the primary assumptions/methodologies that were used to derive the portfolio values by which the GPVI is calculated.

- **Model** – industry accepted discounted cash flow pro forma model which derives unlevered after tax gross profit as the determinant of cash flow
- **Valuation Date(s)** – each index is calculated using the value at the end of the given quarter
- **Base Accounts** – the base accounts are valued as a separate portfolio using financial metrics specific to their recent trailing twelve months' performance at the end of the given quarter
- **New Accounts** – new accounts are valued as a separate "new account" portfolio using financial metrics specific to their recent trailing twelve months' performance as well as metrics from the base accounts' recent trailing twelve months' performance where appropriate
- **Total Portfolio** – the value of the total portfolio is simply the sum of the base accounts and the new accounts, this value is then used to calculate the index

NOTE: It is important to note that the values derived are not a complete measure of the business value as a whole as operating and sales expenses are not considered in the discounted cash flows. There are factors outside these metrics that influence value, such as quality of merchant, merchant base, and associated risk.

- *Numbers may not sum due to rounding*
- *All values represent a change in the identified metric*

Payments Indicators: Acquisition Multiples

This bell curve reviews 90 payments acquisitions from 2000 – 2014, which include "portfolio" or merchant portfolio book of merchants, and "enterprise" which is a portfolio plus sales channels, and/or technology and management.

Timeframe: 2000 – 2014

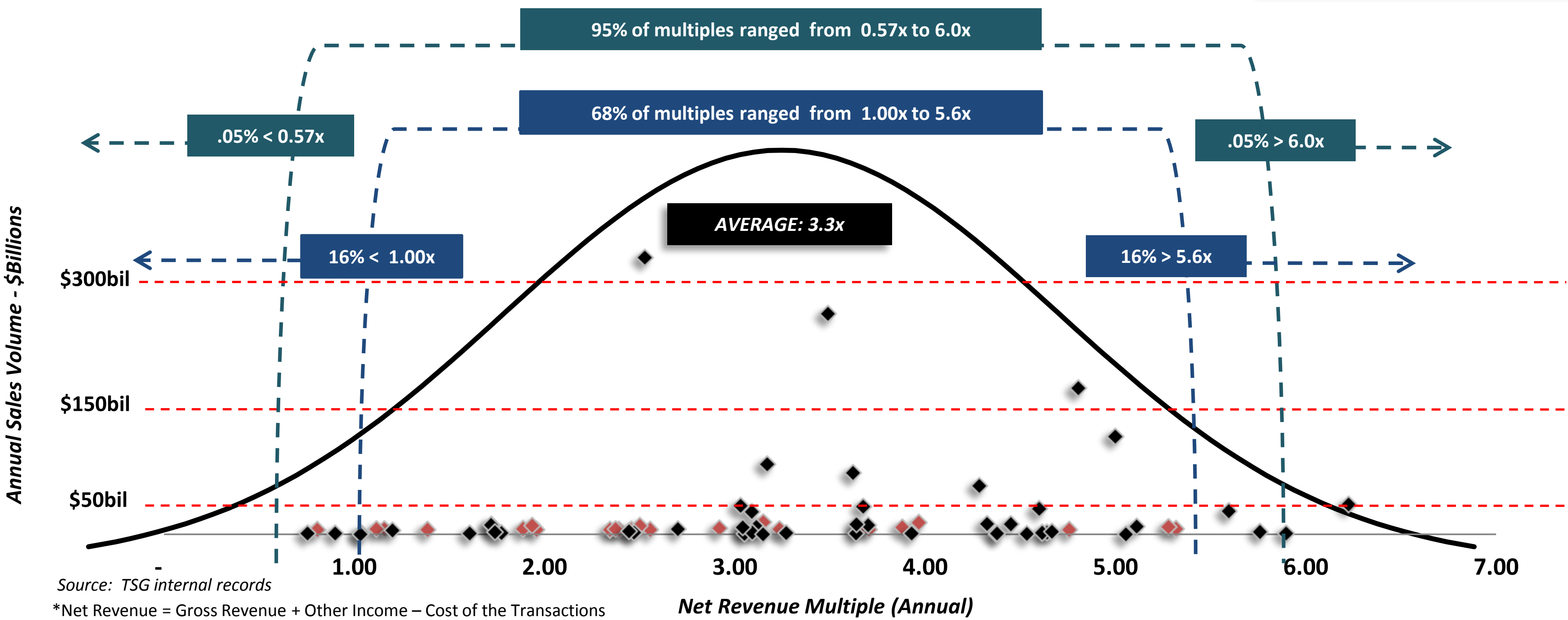
Data Set: 90 Transactions

Purchase Prices: $300K - $30B

Red Plots = Portfolios

Portfolio AVERAGE: 2.77x

Enterprise AVERAGE: 3.57x



Source: TSG internal records

*Net Revenue = Gross Revenue + Other Income – Cost of the Transactions

Low Multiple Characteristics

- No sales channel included in sale
- Stagnant or declining growth
- High account attrition (> 30% per year)
- Inconsistent net revenue margin
- Rapidly decreasing net revenue margins
- Over reliance on non-transaction fees to create revenue
- No merchant account portability
- Right of First Refusal
- No differentiated sales strategy
- High losses (> 2bps)
- Little or no profitability
- Few cost synergies to buyer

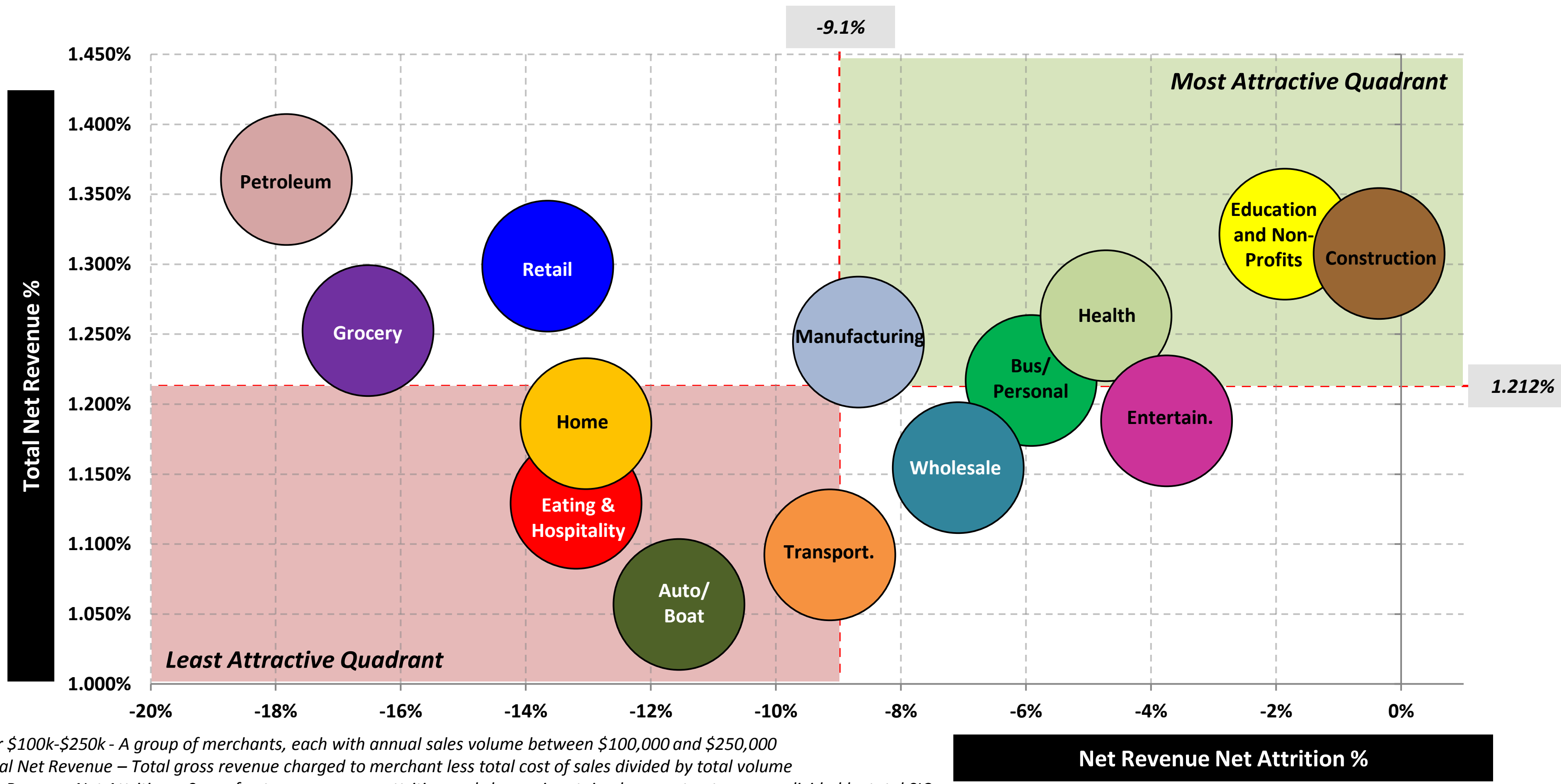
High Multiple Characteristics

- Sales channel included in sale
- Technology that provides competitive advantage
- Solid sales growth (> 10% per year)
- Low account attrition (< 20% per year)
- Consistent net revenue margin
- Strong management team
- Ease of merchant account portability
- Sustainable strategy or market niche
- Low losses (< 1bp)
- Good profitability (> 25% RONR)
- Good cost synergies to buyer

Payments Indicators: Relative Attractiveness of Merchant Verticals

The chart below shows the relative attractiveness of merchant verticals. Those with high profitability and low attrition (upper right quadrant) are the most attractive – this includes Education & Non-Profits, Healthcare, Services, and Construction. The chart below contains only merchants sized between $100k and $250k in annual card sales in order to normalize for merchant size.

Tier $100k to $250k[1]: Industry Vertical Total Net Revenue by Net Revenue Net Attrition
(TTM Q4 2013)



[1]Tier $100k-$250k - A group of merchants, each with annual sales volume between $100,000 and $250,000
[2]Total Net Revenue – Total gross revenue charged to merchant less total cost of sales divided by total volume
[3]Net Revenue Net Attrition – Sum of net revenue gross attrition and change in retained account net revenue divided by total SIC code's net revenue from same period of the prior year
Sources: TSG Database of 2.2 Million U.S. Merchants

About ETA

The Electronic Transactions Association (ETA) is an international trade association representing companies who offer electronic transaction processing products and services. The purpose of ETA is to influence, monitor and help shape the merchant acquiring industry by providing leadership through education, advocacy and the exchange of information. ETA's membership spans the breadth of the payments industry, from financial institutions to transaction processors to independent sales organizations (ISOs) and equipment suppliers. More than 500 companies worldwide are members of ETA. Please visit www.electran.org for more information.

About TSG

The Strawhecker Group (TSG) is a management consulting company focused on the electronic payments industry.

TSG's Service Groups
Payments Strategy - Payments Strategy encompasses the full spectrum of advisory services within the Payments Industry. The depth of these services is built on deep industry knowledge - the Partners and Associates of the firm have an average of over 20 years of industry experience. With clients from card issuers to merchant acquirers, TSG has the experience and expertise to provide real-time strategies.
Transaction Advisory - Whether buying or selling, seeking investment funding, or planning your company's exit strategy, TSG's experience can be critical to achieving success. TSG has performed more than 100 Payments Company Valuation and/or Business Assessments in the past three years - ranging in value from $1 million to $1 billion.
TSG Metrics - TSG Metrics, the strategic research and analysis division of TSG, provides the Payments Industry with highly focused research and industry-wide studies. TSG Metrics takes data, boils it down to information, transforms it to knowledge and presents it to provide wisdom to its client partners.

TSG's Unparalleled Experience
TSG consists of Industry leaders with extensive experience leading teams through explosive growth periods, mergers and acquisitions, and international and domestic expansion within the Payments Industry. Both Partners and Associates of the firm have held key senior management positions at leading industry companies including First Data / First Data International, Visa Inc., MasterCard, TSYS, Humboldt Merchant Services, WorldPay, Heartland Payment Systems, Cardservice International, iPayment, Alliance Data, RapidAdvance, Accenture Consulting, Redwood Merchant Services, Chase Paymentech, as well as other leading financial institutions and Payments companies.

TSG's Influence Shapes the Payments Industry
Over the last three years, TSG has completed over 400 projects for more than 200 different clients including financial institutions, merchant acquirers, card issuers, card associations, technology providers, ISOs, processing companies and the investment community. Additionally, the firm and its Associates sit on several industry committees whose focuses range from emerging product development to governmental regulation advisement.

Other recent TSG reports and analysis include (Click for more information):

The Top 10 Ways Acquirers Can Block the Breach

TSG Analysis: Global Acquisition of PayPros

What Benefits Me By Paying a Credit Card Swipe Fee

TSG Mobile Payments Infographic

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