



**35**

**YEARS & STILL REACHING  
MILESTONES**

*2017 Annual Report*



**TSYS<sup>®</sup>**

## Strength is built over time. Time and time again.

Every milestone is made up of moments – and the last 35 years have been full of them. There were borders crossed, new business lines forged and growth ushered in along the way. These are the moments that turned us into a global payments leader with issuing, merchant and prepaid services all under one roof.

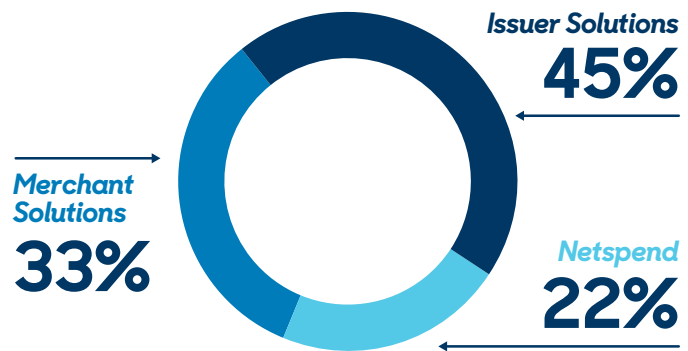
And our 2017 financial performance is an important piece of the story.

### TOTAL REVENUES

**\$4.9** billion



### NET REVENUE BY SEGMENT\*



### EARNINGS PER SHARE

**\$3.37**

adjusted diluted EPS\*



### ADJUSTED EBITDA\*

**\$1.2** billion



### CARDHOLDER TRANSACTIONS

**27.8** billion

transactions processed  
per year (excluding Netspend)

### CLOSING STOCK PRICE

**\$79.09**

(as of 12/31/2017)



\*Net revenue, adjusted EBITDA and adjusted diluted earnings per share are non-GAAP financial measures, which are explained further on pages 24-26 of this report.

# Milestones That Shaped Our History

**1989**

## Betting the Company on TS2®

TSYS made the single largest, capital investment to date, as it kicked off the development, and eventual launch, of its TS2 processing platform in 1992.

## Add Us to the List

TSYS stock was listed on the New York Stock Exchange® with the ticker symbol TSS.

**1983**

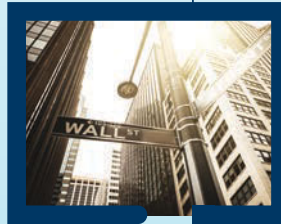
## Going Public

TSYS® incorporated as a subsidiary of CB&T® with an initial public offering (IPO) on the Nasdaq® later in the year.

**1993**

## Expanding Southward

TSYS entered Mexico in a joint venture with a Mexican banking association, marking the company's first international expansion.



## OUR JOURNEY BEGINS

**JANUARY 1983**

- **128** team members
- Serving **62** financial institutions in **24** states

1983 MARKET CAP

**\$54.7 million**

**\$429.0 million**

**\$846.6 million**

TSYS

## 1994 Heading North

TSYS landed its first Canadian client, continuing its expansion in North America.



## 2007 Cutting the Apron Strings

Synovus spun off its ownership in TSYS on 12/31/2007, enabling TSYS to operate as a fully independent company for the first time.

## 1999 Conquering the World

TSYS opened its first European office in the UK, opening the door for further international expansion.

## 2010 Moving Beyond Processing

TSYS went beyond processing to become a full service, direct merchant acquirer for the first time, forming a joint venture with First National Merchant Solutions (FNMS), which was ranked the 10th largest merchant acquirer in North America at the time.

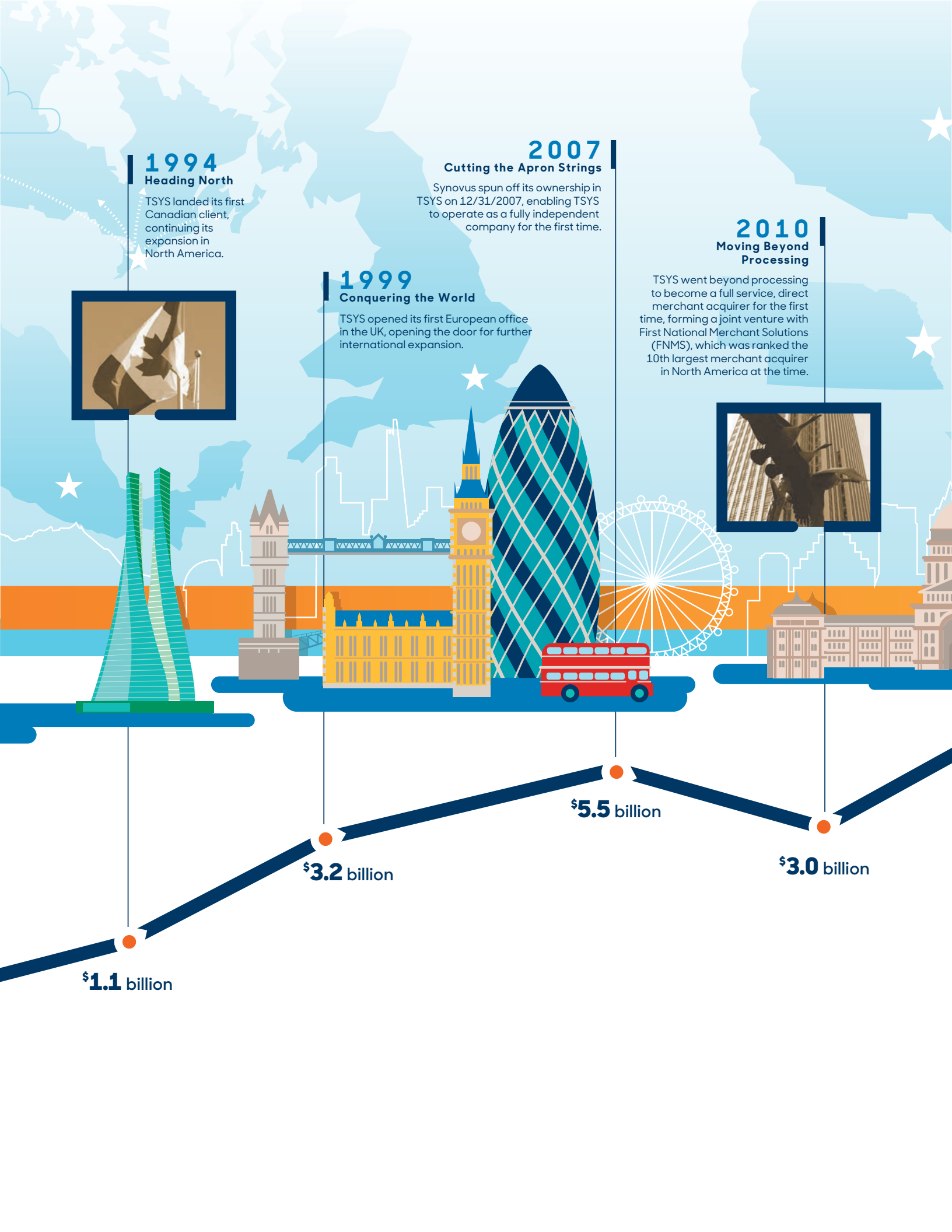


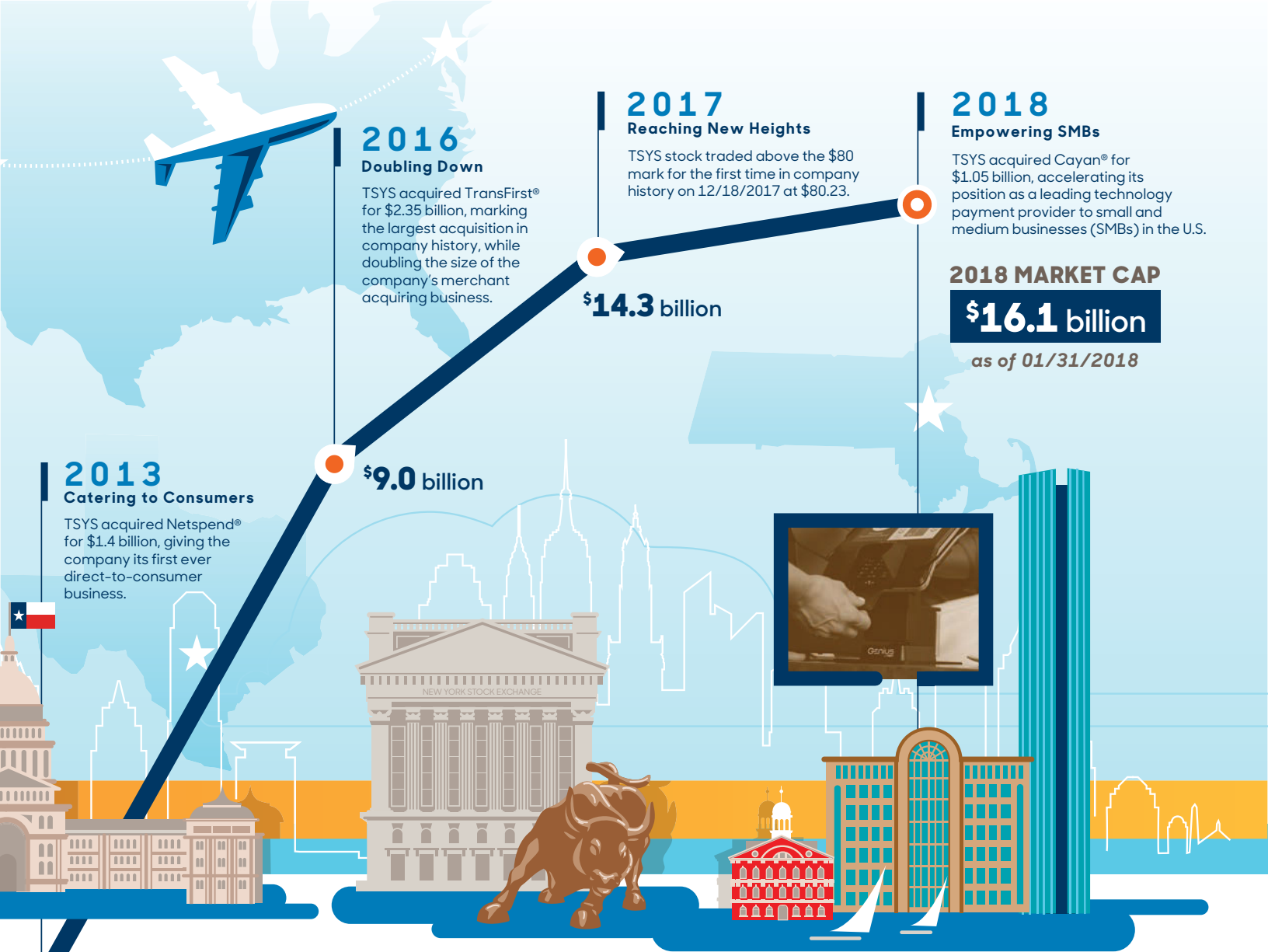
\$1.1 billion

\$3.2 billion

\$5.5 billion

\$3.0 billion





## LOOKING TOWARD THE NEXT MILESTONE

### JANUARY 2018

TSYS is recognized as an industry leader and is a \$4.9 billion revenue company

- **12,000+** team members
- Serving **400+** clients in **80** countries around the world, along with hundreds of thousands of merchants and millions of consumers

today



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## Dear Shareholders and Friends,

*This year marks our 35th year as a public company, and although much has changed during that time period, there are a few things that are the same.*

*In our case, that's performance. Market leadership. Service. Reliability. Doing the right thing by our shareholders, team members, customers, suppliers and communities where we live and work. And most importantly, our corporate values – innovation, growth, integrity, relationships and excellence.*

*During the last three-and-a-half decades, quite a bit has changed in the world of payments. Throughout, we've remained persistently focused on these values. I think of them as our "north stars" that have allowed us to forge new pathways, take calculated risks and continuously transform our business – and then guide us home again.*

*It has been a very exciting and rewarding 35 years in business,  
and our 36th year is off to a great start.*

Of course, this steadiness doesn't mean a standstill. In fact, it's quite the opposite: there's unprecedented change in this marketplace – and at TSYS. Last year was one of our most profitable, productive and performance-driven years to date. We announced our acquisition of Cayan, putting our merchant business in an even stronger competitive position. Our stock price soared to more than \$80 – the highest it's been in our 35 years as a public company. Our efficiency gains continued to reach new heights. And our revenue growth exceeded the S&P 500's for the 5th year in a row.

Once again, we find ourselves in an advantageous position, as payments continue to become more and more entrenched in consumers' lives. With each passing year, more checkbooks are retired in favor of debit cards or person-to-person payments. In the past, credit cards were seen as tools for large or special purchases. Now smaller transactions are the norm, with ubiquitous point-of-sale devices catering to cards, mobile or even alternative currencies. And as the internet of things gains momentum and devices conduct transactions on our behalf, we anticipate even more – and smarter – payments opportunities.

Artificial intelligence (AI) and machine learning are still in their early stages, but will soon have a major impact on our daily lives. Already, they've improved customer experience in other industries, such as retail and telecommunications. According to our 2017 U.S. Consumer Payment Study, 26 percent of consumers own AI-capable devices, and that number is expected to grow. While consumers may primarily use these devices for questions, news and entertainment today, within three to five years we anticipate that AI will be more mainstream, with devices regularly used to shop and make purchases.

Globalization will continue to shape our business. In fact, 72 percent of senior executives from the World's Most Admired Companies® say that globalization will have a significant impact on their organization.\* There's the rise of India and China, with an emerging middle class eager to participate in the global economy. There's much greater interconnectedness, with political, regulatory and economic repercussions that reverberate across the globe. And there's the increased need to balance the local market drivers with a global mindset and execution. All of these factors influence our business every day.

In the midst of these global factors, there's no better time to have issuing, merchant and prepaid services offered under one roof – our key differentiator in the payments space. With each passing year, each segment is better equipped to draw on the strength of its counterparts to realize efficiency gains and next-level innovation. This sense of collaboration between our issuing, merchant, prepaid and other related services makes us the partner of choice in the market.

And just what is a partner of choice? It's a partner with enhanced offerings. Rigorous speed-to-market. Effective service channels. Ease of integration. And so much more. In an increasingly digitized and high-tech world, opportunities abound for market leaders like TSYS. Those opportunities include serving issuers according to their unique patterns and preferences. They include transforming distribution and product offerings for merchants and acquirers. And they include expanding access to financial products for consumers who traditionally may not have had these options.

Looking ahead to the remainder of 2018, I'd like to share with you where we are focused as a company, how we're investing and the plans we've made to keep growth at the forefront of our business.

But first, let's take a look at the numbers from 2017.

\* Source: Fortune <http://fortune.com/2015/02/19/wmac-globalization2-0/>



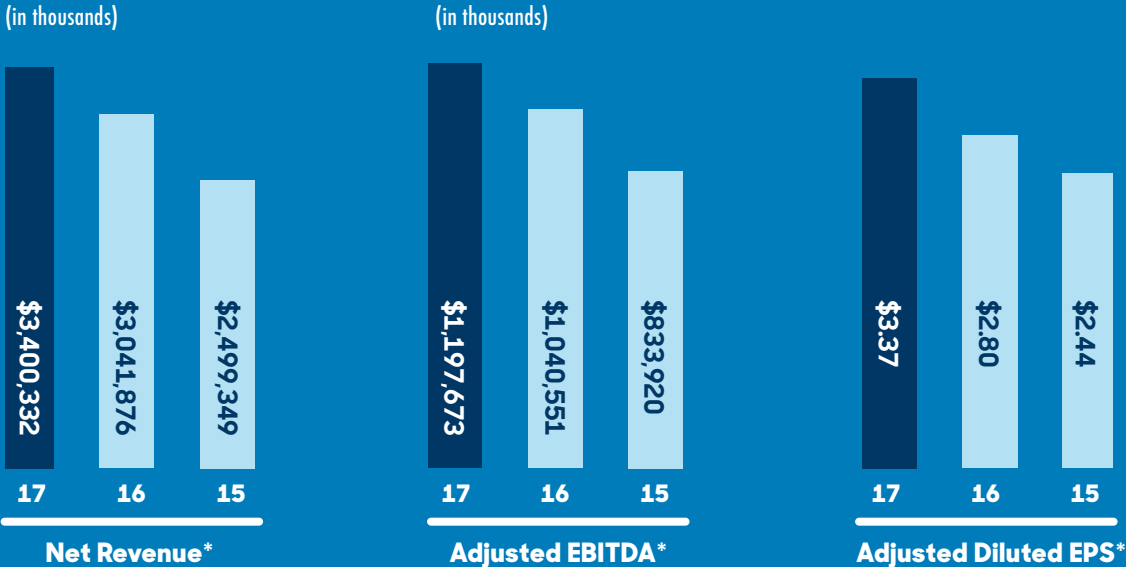
# Financial INFORMATION

In 2017, we had a record-breaking financial performance with a healthy sales pipeline, a sharp focus on expense control and a robust roster of issuing clients with long-term agreements.

As we look ahead, it's worth noting that we're encouraged by the recent *Tax Cuts and Jobs Act* in the United States, which dramatically lowered the corporate tax rate from 35 percent to 21 percent. We believe these changes will be advantageous to TSYS and to the U.S. business environment as a whole. We also believe this legislation will create a more level, global playing field, boost the U.S. economy, create jobs and provide us with investment opportunities. Like many other global corporations, we've already realized significant cost reductions that will enable us to reinvest these savings in our clients, shareholders and team members.

In fact, we gave the majority of our team members a \$1,000 bonus in January as a "thank you" for their hard work, loyalty and dedication, which was a direct result of the company's continued success and the recently passed U.S. tax-reform legislation. We also increased our 401(k) Employer Contribution Match from 4 percent to 5 percent effective July 1, 2018, for U.S. team members. These additional incentives for our team members are not only a "thank you," but also a long-term investment in their futures.

Regardless of the churn and change in this industry, we are ready – and in a great position – to maintain our strong financial performance in 2018 and beyond.





**Revenue and Income:** Total revenues were \$4.9 billion, resulting in double-digit growth of 18.2 percent. Net revenue was \$3.4 billion, up 11.8 percent.

**Earnings Per Share (EPS):** Adjusted EBITDA was \$1.2 billion, an increase of 15.1 percent. Basic EPS from continuing operations was \$3.19, an increase of 83.3 percent. Diluted EPS from continuing operations was \$3.16, an increase of 82.4 percent. Adjusted diluted EPS was \$3.37, an increase of 20.2 percent.

**Return to Shareholders:** Our closing stock price at year end was \$79.09, an increase of 61.3 percent. We purchased 3.85 million shares, totaling \$282.6 million. These purchases, along with our dividends of \$79.0 million, returned \$361.7 million to our shareholders.

**Revenue Diversification:** Our revenue mix continues to evolve. In 2017, Issuer Solutions contributed 45 percent of net revenue, Merchant Solutions contributed 33 percent and Netspend contributed 22 percent. It's clear our revenue diversification becomes more pronounced each year. It's important to note that in the past, we've benchmarked our financials against other large processors. However, as we diversify our revenue mix and expand into other segments, our competitors are changing to include players like fintechs, start-ups and even B2C companies. This excites us – and inspires us to think differently about our capabilities and potential.

(dollars in thousands, except per share data)	2017	2016	% Change
Total revenues	\$4,927,965	\$4,170,077	18.2
Net revenue*	\$3,400,332	\$3,041,876	11.8
Operating income	\$734,044	\$573,382	28.0
Net income attributable to TSYS common shareholders	\$586,185	\$319,638	83.4
Basic earnings per share from continuing operations attributable to TSYS common shareholders	\$3.19	\$1.74	83.3
Diluted earnings per share from continuing operations attributable to TSYS common shareholders	\$3.16	\$1.73	82.4
Adjusted EBITDA*	\$1,197,673	\$1,040,551	15.1
Adjusted diluted EPS*	\$3.37	\$2.80	20.2

\*Net revenue, adjusted EBITDA and adjusted diluted earnings per share are non-GAAP financial measures, which are explained further on pages 24–26 of this report.

Now, I'd like to cover key highlights from our three business segments – Issuer Solutions, Merchant Solutions and Netspend.

## **Issuer Solutions**

You'll remember from last year that our Issuer Solutions segment now includes both our North America issuing and our international issuing lines of business. Both domestically and internationally, our product roadmap continues to be a focus for the issuing business in 2018. Throughout the last year, we worked diligently on testing and piloting projects to eventually refine and scale them for mass distribution.

One of the first steps on this journey is opening up our proprietary ecosystem with the TSYS Developers<sup>SM</sup> portal. It's a website portal where software development meets commerce, where technology drives exceptional

customer experiences, and where APIs are stored and modified. This portal will make it easier and more efficient for our clients to access and integrate with our issuer products and platforms.

We're inspired and eager to harness the potential of machine learning, and are working to embed this exciting technology into many of our platforms and services to offer consumers a truly digitized, connected experience.

Last year, we piloted TSYS Foresight Score<sup>SM</sup> with Featurespace<sup>®</sup>, a fraud-and-risk-scoring tool that incorporates machine learning to fight transactional fraud, especially in card-not-present (CNP) situations. Early results are very encouraging – in a pilot with two clients, they've experienced a 15-percent lift in overall fraud detection and a 35-percent increase in CNP fraud detection.

Another point of progress on our product roadmap is our data and analytics partnership with Argus<sup>®</sup>. Through this relationship, we will be able to better manage data and analytics on behalf of our clients to help them transform it into insightful information and analysis.

Also of note in 2017 was our rollout of Card Rule<sup>SM</sup>, an app that allows cardholders to remotely manage, conveniently monitor and proactively control their payment cards, all from their mobile phone or tablet.

### **STRENGTH IN ISSUING**

**571.9 million**  
*traditional accounts on file*

**\$3.0 trillion**  
*dollar amount of transactions settled*



#### MERCHANT MATTERS

*TSYS serves approximately*

**787,000**

*merchant outlets with more than*

**\$147 billion**

*in total annual processing volume.*

You'll notice a common theme with these new products and pilots: they're all directed at solving the biggest challenges faced by our clients. Those challenges include fraud and risk management, customer acquisition and retention, and the digitization of customer experiences.

In terms of client wins, we extended our long-term agreement with Capital One®, a marquee client and top-five issuer in the United States.\* Over the years, we've fostered a strong partnership with their team, and have gotten the opportunity to continue an existing relationship – an honor we don't take for granted. In total, we completed 17 contract renewals in 2017.

Our issuing business also won a number of highly competitive new contracts on the international front, including Sainsbury's Bank, while also adding new business from Virgin Atlantic Airlines® through our existing relationship with Virgin Money®.

### **Merchant Solutions**

After finalizing the integration of TransFirst, the remainder of 2017 was focused on strengthening TSYS' merchant brand. Announcing our intent to acquire Cayan on December 18 was the capstone of a dynamic year, followed by the official close of the acquisition only 24 days later, on January 11. We believe the acquisition of Cayan is a game changer for TSYS.

Cayan and its 400 plus employees currently serve more than 80,000 merchants and 100 integrated partners across the United States. Cayan – headquartered in Boston, with an office in Belfast, Northern Ireland – offers a fully integrated customer engagement platform for merchants across multiple channels. We see this as a great opportunity to bring more innovative products to our merchant customer base.

*\*Source: Nilson Report®, February 2017, Issue #1104*

The merchant landscape is evolving rapidly, and we are positioning ourselves as leaders in this time of change. In 2017, we brought in new leadership to drive future growth and realize our goal of becoming the premier provider to small- and medium-size U.S. businesses. Philip McHugh joined us in April as Senior EVP of TSYS and President of our Merchant Solutions segment, with more than 20 years of experience in international banking and payments. Philip has been instrumental in driving our merchant segment forward in his short tenure. And Henry Helgeson, co-founder and CEO of Cayan, has now joined the Merchant Solutions segment. Henry's leadership and experience will be a tremendous asset to our business as we look to provide a broad set of value-added products and services for merchants.

On the topic of new products, we're investing in product development to extend capabilities beyond what we offer today. This means we're poised to take advantage of the mobile revolution occurring at the merchant level. Products like smarter terminals and integrated point-of-purchase devices make doing business even easier and free of the technological hurdles and logistical challenges that have burdened merchants for years.

We're working to bring even greater scale and reach to ProPay®, our card acceptance solutions for micro-merchants, e-commerce and direct selling companies.

And, with the acquisition of Cayan, TSYS will serve approximately 787,000 merchant outlets with more than \$147 billion in total annual processing volume.

#### NETSPEND BY THE NUMBERS

**\$32.0 billion**  
*in gross dollar volume*

**130,000**  
*reload locations*

**4.9 million**  
*active cards*





## **Netspend**

In January, we announced that Kelley Knutson had been named Senior EVP and President of Netspend, TSYS' prepaid solutions segment. Kelley has been a dedicated member of the TSYS family and strong contributor to our growth and success for more than 14 years. With more than 30 years of experience within the global payments industry at TSYS, Visa® and GE Capital®, he's an accomplished leader that will enable the Netspend team and business to thrive as the leading provider of self-banking solutions.

The prepaid market continued to grow in 2017, due to a confluence of factors like growing e-commerce users and an increased demand for flexibility and alternatives to cash. To meet increasing consumer demand, we'll focus our efforts in 2018 on the digitization of our products and end-to-end value proposition. Our teams are actively working on tokenization and increased functionality in the Netspend mobile app, and we are exploring where to best utilize EMV®.

The regulatory landscape continued to shift when the Consumer Financial Protection Bureau delayed implementation of its prepaid rule until April 1, 2019. We are confident in our ability to implement the changes required by the rule, while still providing our customers with a great product and overall experience.

Last year, we began a pilot and ultimately rolled out a demand deposit account product (DDA) in our direct channel with a key strategic partner. After extensive consumer research, we strongly believe that our customers have an interest in using individual bank accounts, and we were right: as of the end of 2017, we've seen more than 100,000 demand deposit accounts opened. Our DDA product is appealing to consumers who are new to Netspend, as well as existing prepaid cardholders. We are encouraged by the early results, and plan to expand the distribution of this product in 2018.

While we continue to see organic growth in our existing channels, we are focused on reaching new audiences. Last year, we attracted new consumers through affinity partnerships, such as the MileagePlus® GO Visa® Prepaid Card. In partnership with United Airlines®, this product made its mark as the first prepaid card in the United States offering a consumer the opportunity to directly earn miles for qualifying purchases made with the card. In 2018, we plan to launch our next affinity partnership with Major League Baseball®. We are proud to be the chosen partner of such valued brands and we will continue to develop additional affinity relationships going forward.

## OUR CUSTOMER COVENANT

*Through partnership and expertise, we'll help you unlock the possibilities of payments. You can trust us to be honest and transparent, and depend on us for stability and security.*

*We will hold ourselves to uncompromising standards. We will never settle, never make do. We will earn your trust, and your business, every day.*

### **In Closing**

As we look to the remainder of 2018, the evolution of the payments industry – and our world at large – will continue. Biometrics. Digital wallets. Wearables. New currencies, devices, functionalities. Nearly every aspect of payments has undergone improvement, enhancement or upheaval.

But there are some things that remain constant, like our commitment to our customers. Our customer covenant, which we developed in 1996, has never been more relevant. It's our promise to our customers – to never settle, to never make do – and guides our actions every day.

We're committed to our team members. Once again, we were named one of America's Best Employers by Forbes® in 2017. We believe that when we take care of our team members, they take care of our customers. This prestigious honor is a testament to the hard work and relentless passion that our team members have for TSYS.

We've never been more committed to our communities. For the fourth time since 2013, we were included in The Civic 50, a list of America's most community-minded companies. But no matter which of our 47 global offices you visit, you'll find TSYS and our team members committed to improving the quality of life in the communities where we do business.

And finally, we're committed to you, our shareholders. That means managing the company and making decisions designed to create long-term shareholder value. Effective, smart-capital deployment is essential to our growth. And the way we've deployed our capital over the last three years has contributed to more shareholder value, an increase in earnings per share and the opportunity to invest back in our own company. We also have a diverse and experienced Board of Directors guiding our business. In October, we appointed two new board members – Thaddeus Arroyo, chief executive officer of AT&T® Business and Richard A. Smith, who recently retired as chairman, chief executive officer and president of Realogy® Holdings Corp. These appointments bring vast knowledge and expertise from their respective industries to TSYS.

After 35 years of doing business, we know who we are and where we excel. We recognize our influence and act in the best interest of our shareholders, team members, customers, suppliers and communities – throughout our entire family of companies. We know where we've been and have the industry experience to prove it. And most importantly, we know where we're going. I hope all of you feel the tremendous momentum and excitement about the world of opportunity we have before us.

Thank you for your support as we continue to grow our company.

Sincerely,



**M. Troy Woods**

Chairman, President and Chief Executive Officer, TSYS

# Our LEADERSHIP

## Executive Management



**M. Troy Woods**

Chairman of the Board,  
President & Chief Executive Officer



**Paul M. Todd**

Senior Executive Vice President  
& Chief Financial Officer



**Patricia A. Watson**

Senior Executive Vice President  
& Chief Information Officer



**Gaylon Jowers Jr.**

Senior Executive Vice President  
& President, Issuer Solutions



**Kelley C. Knutson**

Senior Executive Vice President  
& President, Netspend



**Philip C. McHugh**

Senior Executive Vice President  
& President, Merchant Solutions



**G. Sanders Griffith III**

Senior Executive Vice President,  
General Counsel & Secretary



**Ryland L. Harrelson**

Executive Vice President  
& Chief Human Resource Officer



**W. Allen Pettis**

Executive Vice President  
& Chief Customer Officer,  
Issuer Solutions

# Our BOARD OF DIRECTORS

**Thaddeus Arroyo**

Chief Executive Officer  
*AT&T Business*

**Kriss Cloninger III**

President, retired  
*Aflac® Incorporated*

**Walter W. Driver Jr.**

Chairman-Southeast  
*Goldman, Sachs & Co.*

**Sidney E. Harris**

Professor and Dean, retired  
*Georgia State University,  
J. Mack Robinson College of Business*

**William M. Isaac**

Senior Managing Director  
*FTI Consulting®*  
Chairman of the Board, retired  
*Fifth Third Bancorp*  
Former Chairman  
*FDIC*

**Mason H. Lampton**

Chairman of the Board  
*Standard Concrete Products*

**Connie D. McDaniel**

Vice President &  
Chief of Internal Audit, retired  
*The Coca-Cola Company*

**Richard A. Smith**

Chairman of the Board, President  
& Chief Executive Officer, retired  
*Realty Holdings Corp.*

**Philip W. Tomlinson**

Chairman of the Board &  
Chief Executive Officer, retired  
*TSYS*

**John T. Turner**

Private Investor

**Richard W. Ussery**

Chairman of the Board &  
Chief Executive Officer, retired  
*TSYS*

**M. Troy Woods**

Chairman of the Board, President  
& Chief Executive Officer  
*TSYS*



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## Selected Financial Data

The following financial data should be read in conjunction with the Consolidated Financial Statements and Notes thereto and Financial Review sections of the Annual Report. The historical trends in Total System Services, Inc.'s (TSYS' or the Company's) results of operations and financial position over the last five years are presented below.

<i>(in thousands, except per share data)</i>	Years Ended December 31,				
	2017	2016	2015	2014	2013
<b>Income Statement Data:</b>					
Total revenues	\$ 4,927,965	4,170,077	2,779,541	2,446,877	2,064,305
Operating income	\$ 734,044	573,382	534,107	431,640	382,500
Income from continuing operations, net of tax	\$ 592,216	325,972	367,630	280,751	254,542
Income from discontinued operations, net of tax	—	—	1,411	48,655	2,055
Net income	\$ 592,216	325,972	369,041	329,406	256,597
Net income attributable to noncontrolling interests	(6,031)	(6,334)	(4,997)	(6,534)	(11,847)
Net income attributable to TSYS common shareholders	\$ 586,185	319,638	364,044	322,872	244,750
<b>Basic earnings per share (EPS)* attributable to TSYS common shareholders:</b>					
Income from continuing operations	\$ 3.19	1.74	1.97	1.48	1.31
Gain (loss) from discontinued operations	—	—	0.01	0.26	(0.01)
Net income	\$ 3.19	1.74	1.98	1.73	1.30
<b>Diluted EPS* attributable to TSYS common shareholders:</b>					
Income from continuing operations	\$ 3.16	1.73	1.96	1.47	1.30
Gain (loss) from discontinued operations	—	—	0.01	0.25	(0.01)
Net income	\$ 3.16	1.73	1.97	1.72	1.29
Cash dividends declared per share	\$ 0.46	0.40	0.40	0.40	0.40

\*Basic and diluted EPS amounts for continuing operations and net income may not total due to rounding.

<i>(in thousands)</i>	As of December 31,				
	2017	2016	2015	2014	2013
<b>Balance Sheet Data:</b>					
Total assets	\$ 6,331,689	6,366,177	3,877,895	3,725,652	3,677,077
Obligations under long-term borrowings, capital leases and license agreements, excluding current portion	2,628,002	3,313,276	1,377,541	1,397,483	1,426,260

## Financial Overview

TSYS' revenues are derived from providing payment processing, merchant services and related payment services to financial and nonfinancial institutions, generally under long-term processing contracts. The Company also derives revenues by providing general-purpose reloadable (GPR) prepaid debit and payroll cards, demand deposit accounts and other financial service solutions to the underbanked and other consumers and businesses. The Company's services are provided through three operating segments: Issuer Solutions, Merchant Solutions and Netspend.

Through the Company's Issuer Solutions segment, TSYS processes information through its cardholder systems to financial and nonfinancial institutions throughout the United States and internationally. The Company's Merchant Solutions segment provides merchant services to merchant acquirers and merchants primarily in the United States. The Company's Netspend segment provides financial service solutions to consumers and businesses in the United States.

TSYS acquires other companies as part of its strategy for growth. On January 11, 2018, the Company completed its acquisition of Cayan Holdings LLC ("Cayan"), which became a part of the Merchant Solutions segment. Refer to Note 25 in the Notes to Consolidated Financial Statements for more information about the acquisition of Cayan. In April 2016, the Company completed the acquisition of all the outstanding stock of TransFirst Holdings Corp. (TransFirst). TransFirst is part of the Merchant Solutions segment. Refer to Note 22 in the Notes to Consolidated Financial Statements for more information about the acquisition of TransFirst.

The following table sets forth each segment's revenues as a percentage of the Company's total revenues:

	Years Ended December 31,		
	2017	2016	2015
Merchant Solutions	49 %	44 %	20 %
Issuer Solutions	36	40	59
Netspend	15	16	21
Total revenues	100 %	100 %	100 %

Due to the somewhat seasonal nature of the payments industry, TSYS' revenues and results of operations have generally increased in the fourth quarter of each year because of increased transaction and authorization volumes during the traditional holiday shopping season. Furthermore, growth or declines in card and merchant portfolios of existing clients, the conversion of cardholder and merchant accounts of new clients to the Company's processing platforms, the receipt of fees for early contract termination and the loss of cardholder and merchant accounts either through purges or deconversions impact the results of operations from period to period.

Another factor which may affect TSYS' revenues and results of operations from time to time is consolidation in the financial services or retail industries either through the sale by a client of its business, its card portfolio or a segment of its accounts to a party which processes cardholder or merchant accounts internally or uses another third-party processor. A change in the economic environment in the retail sector, or a change in the mix of payments between cash and cards could favorably or unfavorably impact TSYS' financial position, results of operations and cash flows in the future.

TSYS' reported financial results will also be impacted by significant shifts in currency conversion rates. TSYS does not view foreign currency as an economic event for the Company but as a financial reporting consideration. Because changes in foreign currency exchange rates distort the operating growth rates, TSYS discloses the impact of foreign currency translation on its financial performance.

A significant amount of the Company's revenues are derived from long-term contracts with large clients. Processing contracts with large clients, representing a significant portion of the Company's total revenues, generally provide for discounts on certain services based on the size and activity of clients' portfolios. Therefore, revenues and the related margins are influenced by the client mix relative to the size of client portfolios, as well as the number and activity of individual cardholder or merchant accounts processed for each client.

Also impacting revenues is the impact of TransFirst. TransFirst's results are part of the Merchant Solutions segment and are reported gross, which includes amounts paid for interchange and payment network fees, due to TransFirst's relationship with its customers.

### *Regulation*

Government regulation affects key areas of TSYS' business, in the United States of America (U.S.) as well as internationally. TSYS, along with the rest of the financial services industry, continues to experience increased legislative and regulatory scrutiny, including the enactment of additional legislative and regulatory initiatives such as the Dodd-Frank Wall Street Reform and Consumer Protection Act (Financial Reform Act) in 2010. This legislation, which provides for sweeping financial regulatory reform, may have a significant and negative impact on the Company and its clients, which could impact TSYS' earnings through fee reductions, higher costs (both regulatory and implementation) and new restrictions on operations. The Financial Reform Act may also impact the competitive dynamics of the financial services industry in the U.S. by more adversely impacting large financial institutions, some of which are TSYS clients, and by adversely impacting the competitive position of U.S. financial institutions in comparison to foreign competitors in certain businesses.

The Financial Reform Act created a new Consumer Financial Protection Bureau ("CFPB") with responsibility for regulating consumer financial products and services and enforcing most federal consumer protection laws in the area of financial services, including consumer credit and the prepaid card industry. For example, the CFPB has promulgated a new rule regarding prepaid financial products, which, among other things, will establish new disclosure requirements specific to prepaid accounts, eliminate certain fees that may currently be imposed on prepaid accounts, and make it economically unfeasible for a prepaid provider such as the Company's Netspend business to offer courtesy overdraft protection on prepaid accounts. The rule is scheduled to become effective in April 2019. Similarly, other future actions of the CFPB may make payment card or product transactions generally less attractive to card issuers, acquirers, consumers and merchants by further regulatory disclosures, payment card practices, fees, routing and other matters with respect to credit, debit and prepaid cards, and thus negatively impact the Company's business.

# Financial Review

This Financial Review provides a discussion of critical accounting policies and estimates, related party transactions and off-balance sheet arrangements. This Financial Review also discusses the results of operations, financial position, and liquidity and capital resources of TSYS and outlines the factors that have affected its recent earnings, as well as those factors that may affect its future earnings. The accompanying Consolidated Financial Statements and related Notes are an integral part of this Financial Review and should be read in conjunction with it.

## Critical Accounting Policies and Estimates

Risk factors that could affect the Company's future operating results and cause actual results to vary materially from expectations are listed in the Company's forward-looking statements. Negative developments in these or other risk factors could have a material adverse effect on the Company's financial position, results of operations and cash flows.

TSYS' financial position, results of operations and cash flows are impacted by the accounting policies the Company has adopted. Refer to Note 1 in the Consolidated Financial Statements for more information on the Company's basis of presentation and a summary of significant accounting policies.

Management believes that the following accounting policies are the most critical to fully understand and evaluate the Company's results. Within each critical policy, the Company makes estimates that require management's subjective or complex judgments about the effects of matters that are inherently uncertain.

A summary of the Company's critical accounting estimates applicable to the reportable operating segments follows:

### Acquisitions — Purchase Price Allocation

TSYS' purchase price allocation methodology requires the Company to make assumptions and to apply judgment to estimate the fair value of acquired assets and liabilities. TSYS estimates the fair value of assets and liabilities based upon appraised values, the carrying value of the acquired assets and widely accepted valuation techniques, including the cost approach, discounted cash flows and market multiple analyses. TSYS adjusts the purchase price allocation, as necessary, up to one year after the acquisition closing date as TSYS obtains more information regarding asset valuations and liabilities assumed. Unanticipated events or circumstances may occur which could affect the accuracy of the Company's fair value estimates, including assumptions regarding industry economic factors and business strategies, and may result in an impairment or a new allocation of purchase price.

### Goodwill

In accordance with the provisions of U.S. Generally Accepted Accounting Principles (GAAP), goodwill is required to be tested for impairment at least annually. The Company tests goodwill for impairment during the second quarter or more frequently whenever events or changes in circumstances indicate that the carrying amount of goodwill may not be recoverable. Examples of potential triggering events include, but are not limited to, a deterioration in general economic conditions, industry and market considerations such as a deterioration in the environment in which the Company operates, cost factors such as increases in labor or other costs, overall financial performance such as negative or declining cash flows, other relevant entity-specific factors, events affecting a reporting unit or a sustained decrease in share price.

In evaluating goodwill for recoverability, the Company has the option to perform a qualitative assessment to determine whether further impairment testing is necessary or to perform a quantitative assessment using discounted net cash flows for future periods estimated by management. The combination of the income approach, utilizing the discounted cash flow (DCF) method, and the market approach, utilizing readily available market valuation multiples, is used to estimate the fair value of each reporting unit. Under the DCF method, the fair value of the asset reflects the present value of the projected earnings that will be generated by each asset after taking into account the revenues and expenses associated with the asset, the relative risk that the cash flows will occur, the contribution of other assets, and an appropriate discount rate to reflect the value of invested capital. To the extent the carrying amount of goodwill exceeds its fair value, an impairment charge is measured and recognized. Cash flows are estimated for future periods based on historical data and projections provided by management. If the actual cash flows are not consistent with the Company's estimates, a material impairment charge may result and net income may be materially different than was initially recorded. Note 5 in the Consolidated Financial Statements contains a discussion of goodwill. The net carrying value of goodwill on the Company's Consolidated Balance Sheet as of December 31, 2017 was \$3.3 billion. The Company did not recognize any goodwill impairment charges during the years ended December 31, 2017, 2016 and 2015.

### Long-lived Assets other than Goodwill

The Company reviews long-lived assets, such as property and equipment, intangibles subject to amortization, computer software and contract acquisition costs, for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Examples of potential triggering events include, but are not limited to, a significant decrease in the market price of a long-lived asset or asset group, a significant adverse change in the extent or manner in which a long-lived asset or asset group is being used, a significant adverse change in legal factors or business climate, an accumulation of costs significantly in excess of the originally expected amount, continuing losses associated with the use of a long-lived asset or asset group, or a current expectation that a long-lived asset or asset group will be sold or otherwise disposed of significantly before its previously estimated useful life.

In evaluating long-lived assets other than goodwill for recoverability, expected undiscounted future operating cash flows are estimated by management. To the extent the carrying amount of a long-lived asset exceeds its fair value, an impairment charge is measured and recognized. Assumptions and estimates about future cash flows and remaining useful lives are complex and subjective. They can be affected by a variety of factors, including industry and economic trends, changes in the Company's business strategy and changes in internal forecasts. If the actual cash flows are not consistent with the Company's estimates, a material impairment charge may result and net income may be materially different than was initially recorded. The Company did not recognize any material impairment charges during the years ended December 31, 2017, 2016 and 2015.

### Revenue Recognition

The Company recognizes revenues in accordance with the provisions of GAAP, which sets forth guidance as to when revenue is realized or realizable and earned when all of the following criteria are met: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred or services have been performed; (3) the seller's price to the buyer is fixed or determinable; and (4) collectability is reasonably assured.

The Company evaluates its contractual arrangements that provide services to clients through a bundled sales arrangement in accordance with the provisions of GAAP to address the determination of whether an arrangement involving more than one deliverable contains more than one unit of accounting and how the arrangement consideration should be measured and allocated to the separate units of accounting.

A deliverable in multiple element arrangements indicates any performance obligation on the part of the seller and includes any combination of obligations to perform different services, grant licenses or other rights. Revenue is allocated to the separate units of accounting in a multiple element arrangement based on relative fair values, provided the delivered element has standalone value to the customer and delivery of any undelivered items is probable and substantially within the Company's control. Evidence of fair value must be objective and reliable. An item has value to the customer on a standalone basis if it is sold separately by any vendor or the customer could resell the deliverable on a standalone basis.

There were no material changes or impact to revenue recognition during the years ended December 31, 2017, 2016 and 2015 due to any changes in the determination of the number of deliverables in an arrangement, units of accounting, or estimates of selling prices for existing contractual arrangements.

### Income Taxes

In calculating its effective tax rate, the Company makes decisions regarding certain tax positions, including the timing and amount of deductions and allocations of income among various tax jurisdictions. The Company has various tax filing positions, including the timing and amount of deductions and credits, the establishment of reserves for audit matters and the allocation of income among various tax jurisdictions.

The Company makes estimates as to the amount of deferred tax assets and liabilities and records valuation allowances to reduce its deferred tax assets to reflect the amount that is more likely than not to be realized. The Company considers projected future taxable income and ongoing tax planning strategies in assessing the need for the valuation allowance. Actual results may differ from the Company's estimates. If the Company realizes a deferred tax asset or the Company was unable to realize a net deferred tax asset, an adjustment to the deferred tax asset would increase or decrease earnings, respectively, in the period the difference is recognized.

On December 22, 2017, the President signed into law the Tax Cuts and Jobs Act of 2017 (the "Tax Act"). A key provision of this law that impacted TSYS was the reduction of the Federal corporate income tax rate from 35% to 21%. This required us to remeasure our U.S. deferred tax assets and liabilities. Another provision of the Tax Act that impacted TSYS during this

reporting period was the one-time transition tax on the deemed repatriation of foreign accumulated earnings. Please see Note 13 for more detail concerning the impacts of the Tax Act.

Pursuant to the Tax Act, some amounts related to repatriation of foreign accumulated earnings and related to executive compensation may be considered provisional amounts pursuant to Securities and Exchange Commission (SEC) Staff Accounting Bulletin No. 118. As such, these amounts may be adjusted during the measurement period ending December 31, 2018.

## **Off-Balance Sheet Arrangements**

### *Operating Leases*

As a method of funding its operations, TSYS employs noncancelable operating leases for computer equipment, software and facilities. These leases allow the Company to use the latest technology while avoiding the risk of ownership. Neither the assets nor obligations related to these leases are included on the balance sheet. Refer to Notes 1 and 14 in the Consolidated Financial Statements for further information on operating lease commitments.

### *Contractual Obligations*

The Company has long-term obligations which consist of required minimum future payments under contracts with the Company's distributors and other service providers.

## **Recent Accounting Pronouncements**

For a discussion of recent accounting pronouncements, refer to Note 1 in the Notes to the Consolidated Financial Statements.

## **Results of Operations**

### *Revenues*

The Company generates revenues by providing transaction processing and other payment-related services. The Company's pricing for transactions and services is complex. Each category of revenue has numerous fee components depending on the types of transactions processed or services provided. TSYS reviews its pricing and implements pricing changes on an ongoing basis. In addition, standard pricing varies among its regional businesses, and such pricing can be customized further for customers through tiered pricing of various thresholds for volume activity. TSYS' revenues are based upon transactional information accumulated by its systems. The Company's revenues are impacted by currency translation of foreign operations, as well as doing business in the current economic environment.

The Company reviews revenue performance on a net revenue basis which is a non-GAAP measure. Net revenue is defined as total revenues less reimbursable items (such as postage), as well as merchant acquiring interchange and payment network fees charged by the card associations or payment networks that are recorded by TSYS as expense. The Company has included reimbursements received for out-of-pocket expenses as revenues and expenses. The largest reimbursable expense items for which TSYS is reimbursed by clients are postage and network association fees. The Company's reimbursable items are impacted with changes in postal rates and changes in the volumes of mailing activities by its clients. Reimbursable items for the year ended December 31, 2017 were \$260.2 million, an increase of \$0.7 million or 0.3%, compared to \$259.5 million for the same period last year. Reimbursable items for the year ended December 31, 2016 decreased \$20.7 million, or 7.4%, compared to \$280.2 million for the same period in 2015. Interchange and payment network fees related to the TransFirst business were \$1.3 billion and \$868.7 million for the year ended December 31, 2017 and 2016, respectively.

TSYS' revenues in its Issuer Solutions segment are influenced by several factors, including volumes related to accounts on file (AOF) and transactions. TSYS estimates that approximately 49.8% of the segment's net revenue is AOF and transaction volume driven. The remaining 50.2% of net revenue is not AOF and transaction volume driven, and is derived from production and optional services TSYS considers to be value added products and services, custom programming and licensing arrangements.

TSYS' revenues in its Merchant Solutions segment are influenced by several factors, including volumes related to transactions, dollar sales volume, value added services, monthly statement fees, compliance fees and miscellaneous services.



TSYS' revenues in its Netspend segment primarily consist of a portion of the service fees collected from cardholders and interchange revenues received by Netspend's prepaid card issuing banks in connection with the programs managed by Netspend.

A summary of the consolidated financial highlights is provided below:

<i>(in thousands, except per share data)</i>	Years Ended December 31,			Percent Change	
	2017	2016	2015	2017 vs. 2016	2016 vs. 2015
Total revenues	\$ 4,927,965	4,170,077	2,779,541	18.2 %	50.0 %
Net revenue <sup>1</sup>	\$ 3,400,332	3,041,876	2,499,349	11.8	21.7
Operating income	\$ 734,044	573,382	534,107	28.0	7.4
Net income attributable to TSYS common shareholders	\$ 586,185	319,638	364,044	83.4	(12.2)
Basic earnings per share (EPS) attributable to TSYS common shareholders <sup>2</sup>	\$ 3.19	1.74	1.98	83.3	(12.0)
Diluted EPS attributable to TSYS common shareholders <sup>2</sup>	\$ 3.16	1.73	1.97	82.4	(11.8)
Adjusted earnings before interest, taxes, depreciation and amortization (Adjusted EBITDA) <sup>3</sup>	\$ 1,197,673	1,040,551	833,920	15.1	24.8
Adjusted diluted EPS <sup>4</sup> from continuing operations	\$ 3.37	2.80	2.46	20.2	14.5
Cash flows from operating activities	\$ 856,492	718,029	602,034	19.3	19.3
Free cash flow <sup>5</sup>	\$ 660,466	575,456	398,719	14.8	44.3

Refer to the reconciliation of GAAP to non-GAAP measures later in this section.

<sup>1</sup> Net revenue is total revenues less reimbursable items (such as postage), as well as merchant acquiring interchange and payment network fees charged by the credit card associations or payment networks that are recorded by TSYS as expense.

<sup>2</sup> Basic and diluted EPS is computed based on the two-class method in accordance with the guidance under GAAP. Refer to Note 24 in the Consolidated Financial Statements for more information on EPS.

<sup>3</sup> Adjusted EBITDA is net income excluding equity in income of equity investments, interest expense (net of interest income), nonoperating income/(expense), income taxes, depreciation, amortization, foreign currency translation gains/(losses), share-based compensation expenses, litigation, claims, judgments or settlements, and TransFirst and Cayman merger & acquisition expenses.

<sup>4</sup> Adjusted diluted EPS is adjusted earnings divided by weighted average diluted shares outstanding used for diluted EPS calculations. Adjusted earnings is net income excluding the after-tax impact of share-based compensation expenses, amortization of acquisition intangibles, litigation, claims, judgments or settlements, and TransFirst and Cayman merger & acquisition expenses.

<sup>5</sup> Free cash flow is net cash provided by operating activities less capital expenditures.

Total revenues increased \$757.9 million for the year ended December 31, 2017, compared to the year ended December 31, 2016, which increased \$1.4 billion compared to the year ended December 31, 2015. The increase in total revenues for the year ended December 31, 2017, as compared to 2016, is primarily the result of the acquisition of TransFirst in April 2016 as well as organic growth. The impact of the TransFirst acquisition on total revenues was a year-over-year increase of \$419.7 million in 2017 and \$1.2 billion in 2016. The increases in revenues for 2017 and 2016 include decreases of \$15.5 million and \$42.5 million, respectively, related to the effects of currency translation of the Company's foreign-based subsidiaries and branches.

Net revenue increased 11.8%, or \$358.5 million, for the year ended December 31, 2017, compared to the year ended December 31, 2016, which increased 21.7%, or \$542.5 million, compared to the year ended December 31, 2015. The increase in net revenue for the year ended December 31, 2017, as compared to the same period in 2016, is primarily the result of the acquisition of TransFirst in April 2016, as well as organic growth, partially offset by decreases associated with currency translation. The impact of the TransFirst acquisition on net revenue was \$132.3 million for the year ended December 31, 2017. The increase in net revenue for the year ended December 31, 2016, as compared to the same period in 2015, is primarily the result of the acquisition of TransFirst in April 2016, partially offset by decreases associated with currency translation. The impact of the TransFirst acquisition on net revenue was \$380.7 million for the year ended December 31, 2016.

### Major Customer

The Company works to maintain a large and diverse customer base across various industries. Although the Company does not have a major customer on a consolidated basis, a significant amount of the Company's revenues are derived from long-term contracts with large clients. TSYS derives revenues from providing various processing and other services to these clients, including processing of consumer and commercial accounts, as well as revenues for reimbursable items. The loss of one of the Company's large clients could have a material adverse effect on the Company's financial position, results of operations and cash flows.

### Operating Segments

TSYS' services are provided through three operating segments: Issuer Solutions, Merchant Solutions and Netspend.



## Issuer Solutions

The Company's Issuer Solutions segment has many long-term customer contracts with card issuers providing account processing and output services for printing and embossing items. These contracts generally require advance notice prior to the end of the contract if a client chooses not to renew. Additionally, some contracts may permit early termination upon the occurrence of certain events such as a change in control. The termination fees paid upon the occurrence of such events are designed primarily to cover balance sheet exposure related to items such as capitalized conversion costs or client incentives associated with the contract and, in some cases, may cover a portion of lost future revenue and profit. Although these contracts may be terminated upon certain occurrences, the contracts provide the segment with a steady revenue stream since a vast majority of the contracts are honored through the contracted expiration date.

These services are provided throughout the period of each account's use, starting from a card-issuing client processing an application for a card. Services may include processing the card application, initiating service for the cardholder, processing each card transaction for the issuing retailer or financial institution and accumulating the account's transactions. Fraud management services monitor the unauthorized use of accounts which have been reported to be lost, stolen, or which exceed credit limits. Fraud detection systems help identify fraudulent transactions by monitoring each account holder's purchasing patterns and flagging unusual purchases. Other services provided include customized communications to cardholders, information verification associated with granting credit, debt collection and customer service.

Issuer Solutions revenues are generated from charges based on the number of AOF, transactions and authorizations processed, statements mailed, cards embossed and mailed, and other processing services for cardholder AOF. Cardholder AOF includes active and inactive consumer credit, retail, prepaid, stored value, government services and commercial card accounts. TSYS' clients also have the option to use fraud and portfolio management services. Collectively, these services are considered volume-based revenues.

Whether or not an account on file is active can impact TSYS' revenues differently. Active accounts are accounts that have had monetary activity either during the current month or in the past 90 days based on contractual definition. Inactive accounts are accounts that have not had a monetary transaction (such as a purchase or payment) in the past 90 days. The more active an account is, the more revenue is generated for TSYS (items such as transactions and authorizations processed and statements billed).

Occasionally, a client will purge inactive accounts from its portfolio. An inactive account typically will only generate an AOF charge. A processing client will periodically review its cardholder portfolio based upon activity and usage. Each client, based upon criteria individually set by the client, will flag an account to be "purged" from TSYS' system and deactivated.

A deconversion involves a client migrating all of its accounts to an in-house solution or another processor. Account deconversions include active and inactive accounts and can impact the Company's revenues significantly more than an account purge.

A sale of a portfolio typically involves a client selling a portion of its accounts to another party. A sale of a portfolio and a deconversion impact the Company's financial statements in a similar fashion, although a sale usually has a smaller financial impact due to the number of accounts typically involved.

Below is a summary of AOF for the Company's Issuer Solutions segments:

(in millions)	As of December 31,			Percent Change	
	2017	2016	2015	2017 vs. 2016	2016 vs. 2015
<b>AOF</b>					
Consumer	<b>481.3</b>	442.9	408.2	<b>8.7 %</b>	8.5 %
Commercial	<b>54.2</b>	47.9	45.4	<b>13.2</b>	5.4
Other	<b>36.4</b>	31.0	26.6	<b>17.4</b>	16.8
Traditional AOF <sup>1</sup>	<b>571.9</b>	521.8	480.2	<b>9.6</b>	8.7
Prepaid/Stored Value <sup>2</sup>	<b>38.6</b>	57.8	97.2	<b>(33.3)</b>	(40.5)
Government Services <sup>3</sup>	<b>95.0</b>	88.7	79.3	<b>7.2</b>	11.7
Commercial Card Single-Use <sup>4</sup>	<b>92.0</b>	83.2	75.8	<b>10.7</b>	9.8
Total AOF	<b>797.5</b>	751.5	732.5	<b>6.1</b>	2.6

<sup>1</sup> Traditional accounts include consumer, retail, commercial, debit and other accounts. These accounts are grouped together due to the tendency to have more transactional activity than prepaid, government services and single-use accounts.

<sup>2</sup> Prepaid does not include Netspend accounts. These accounts tend to have less transactional activity than the traditional accounts. Prepaid and stored value cards are issued by firms through retail establishments to be purchased by consumers to be used at a later date. These accounts tend to be the least active of all accounts on file.

<sup>3</sup> Government services accounts are disbursements of student loan accounts issued by the Department of Education, which have minimal activity.

<sup>4</sup> Commercial card single-use accounts are one-time use accounts issued by firms to book lodging and other travel related expenses.

Non-volume related revenues include processing fees which are not directly associated with AOF and transactional activity, such as value-added products and services, custom programming and certain other services, which are offered to TSYS' processing clients.

Additionally, certain clients license the Company's processing systems and process in-house. Since the accounts are processed outside of TSYS for licensing arrangements, the AOF and other volumes are not available to TSYS. Thus, volumes reported by TSYS do not include volumes associated with licensing.

Output and managed services include offerings such as card production, statement production, correspondence and call center support services.

The Issuer Solutions segment provides payment processing and related services to clients in North America and internationally. Growth in revenues and operating profit in this segment is derived from retaining and growing the core business and improving the overall cost structure. Growing the core business comes primarily from an increase in account usage, growth from existing clients and sales to new clients and the related account conversions. This segment's financial results are impacted by foreign currency. Movements in foreign currency exchange rates as compared to the U.S. dollar can result in foreign denominated financial statements being translated into more or fewer U.S. dollars, which impacts the comparison to prior periods when the U.S. dollar was stronger or weaker. This segment had two major customers for the year ended December 31, 2017.

Below is a summary of the Issuer Solutions segment:

<i>(in thousands, except key indicators)</i>	Years Ended December 31,			Percent Change	
	2017	2016	2015	2017 vs. 2016	2016 vs. 2015
Volume-based revenues	\$ 794,099	749,211	715,287	6.0 %	4.7 %
Non-volume related revenues:					
Processing fees	\$ 309,746	296,021	298,310	4.6	(0.8)
Value-added, custom programming, licensing and other	254,847	233,424	233,493	9.2	(0.0)
Output and managed services	236,267	236,806	226,824	(0.2)	4.4
Total non-volume related revenues	\$ 800,860	766,251	758,627	4.5	1.0
Net revenue <sup>1</sup>	\$ 1,594,959	1,515,462	1,473,914	5.2	2.8
Adjusted segment operating income <sup>2</sup>	\$ 574,580	525,025	489,151	9.4	7.3
Adjusted segment operating margin <sup>3</sup>	36.0 %	34.6 %	33.2 %		
Key indicators <i>(in millions)</i> :					
AOF	797.5	751.5	732.5	6.1	2.6
Transactions	21,575.6	19,858.1	18,248.1	8.6	8.8

<sup>1</sup> Net revenue is defined as total revenues less reimbursable items (such as postage), as well as, merchant acquiring interchange and assessment fees charged by the card associations or payment networks that are recorded by TSYS as expense.

<sup>2</sup> Adjusted segment operating income excludes acquisition intangible amortization and expenses associated with Corporate Administration and Other.

<sup>3</sup> Adjusted segment operating margin equals adjusted segment operating income divided by net revenue.

For the year ended December 31, 2017, approximately 49.8% of TSYS' Issuer Solutions segment net revenue was driven by the volume of accounts on file and transactions processed and approximately 50.2% was derived from non-volume based revenues.

Segment net revenues increased \$79.5 million for 2017, as compared to 2016. The increase was attributable to an increase in new business and internal growth, partially offset by decreases related to \$15.4 million in currency translation, client deconversions and price reductions. Segment net revenues increased \$41.5 million for 2016, as compared to 2015. The increase was attributable to an increase in new business and internal growth, partially offset by decreases related to \$39.7 million in currency translation, client deconversions, price reductions.

The increases in adjusted segment operating income for 2017 and 2016 were driven primarily by increases in revenues partially offset by increases in total operating expenses including severance costs, technology and other expenses.

## Merchant Solutions

The Merchant Solutions segment provides merchant services and related services to clients based primarily in the United States. Merchant Solutions revenues are derived from providing processing services, acquiring solutions, related systems and integrated support services to merchant acquirers and merchants. Revenues from merchant services include processing all payment forms including credit, debit, prepaid, electronic benefit transfer and electronic check for merchants of all sizes across a wide array of market verticals. Merchant services include authorization and capture of transactions; clearing and settlement of transactions; information reporting services related to transactions; merchant billing services; and point-of-sale (POS) equipment sales and service. This segment had no major customers for the year ended December 31, 2017.

Below is a summary of the Merchant Solutions segment:

<i>(in thousands, except key indicators)</i>	Years Ended December 31,			Percent Change	
	2017	2016	2015	2017 vs. 2016	2016 vs. 2015
Net revenue <sup>1</sup>	<b>\$ 1,103,682</b>	898,533	474,040	<b>22.8 %</b>	89.5 %
Adjusted segment operating income <sup>2</sup>	<b>\$ 391,466</b>	307,595	150,225	<b>27.3</b>	nm
Adjusted segment operating margin <sup>3</sup>	<b>35.5 %</b>	34.2 %	31.7 %		
Key indicators:					
Dollar sales volume <i>(in millions)</i>	<b>\$ 124,165.1</b>	97,735.1	48,072.7	<b>27.0</b>	nm
POS transactions <i>(in millions)</i>	<b>4,844.1</b>	4,548.1	4,266.5	<b>6.5</b>	6.6
Net revenue per POS transaction	<b>\$ 0.228</b>	0.198	0.111	<b>15.3</b>	77.8

nm = not meaningful

<sup>1</sup> Net revenue is defined as total revenues less reimbursable items (such as postage), as well as, merchant acquiring interchange and payment network fees charged by the card associations or payment networks that are recorded by TSYS as expense.

<sup>2</sup> Adjusted segment operating income excludes acquisition intangible amortization and expenses associated with Corporate Administration and Other.

<sup>3</sup> Adjusted segment operating margin equals adjusted segment operating income divided by net revenue.

With the acquisition of TransFirst in April 2016, TSYS included nine months for 2016 of TransFirst's results as part of the Merchant Solutions segment. TransFirst's revenues are reported gross, which includes amounts paid for interchange and payment network fees, as TransFirst is the principal in the contractual relationship with its customers. Expenses covering interchange and payment network fees are included in TransFirst's cost of services and are directly attributable to processing fee revenues. Merchant Solutions net revenue is defined as total revenues less merchant acquiring interchange and payment network fees charged by the card associations or payment networks that are recorded by TSYS as an expense.

The Merchant Solutions segment results are driven by dollar sales volume and the authorization and capture transactions processed at the point-of-sale and clearing and settlement transactions. This segment's authorization and capture transactions are primarily through dial-up or Internet connectivity.

For the year ended December 31, 2017, approximately 93.5% of TSYS' Merchant Solutions segment net revenue was influenced by several factors, including volumes related to transactions and dollar sales volume. The remaining 6.5% of this segment's net revenue was derived from value added services, chargebacks, managed services, investigation, risk and collection services performed.

The increase in adjusted segment operating income for 2017, as compared to 2016, was driven primarily by the acquisition of TransFirst in April 2016 as well as operating cost reductions in connection with the integration. The increase in adjusted segment operating income for 2016, as compared to 2015, was driven primarily by the acquisition of TransFirst in April 2016, partially offset by severance costs.

## Netspend

Netspend provides GPR prepaid debit and payroll cards, demand deposit accounts and other financial service solutions to the underbanked and other consumers and businesses in the United States. Netspend's products provide customers with access to depository accounts insured by the Federal Deposit Insurance Corporation (FDIC) with a menu of pricing and features specifically tailored to their needs. Netspend has an extensive distribution and reload network comprising financial service centers and other retail locations throughout the United States, and is a program manager for FDIC-insured depository institutions that issue the products that Netspend develops, promotes and distributes. Netspend currently has active agreements with six issuing banks.

The Netspend segment markets its products through multiple distribution channels, including alternative financial service providers, traditional retailers, direct-to-consumer and online marketing programs and contractual relationships with corporate

employers. This segment had no major customers and one major third-party distributor for the year ended December 31, 2017.

The Netspend segment's revenues primarily consist of a portion of the service fees collected from cardholders and interchange revenues received by Netspend's issuing banks and others in connection with the programs managed by this segment. Customers are charged fees for transactions including fees for Personal Identification Number (PIN) and signature-based purchase transactions made using their cards, for Automated Teller Machine (ATM) withdrawals or other transactions conducted at ATMs, for balance inquiries, and monthly maintenance fees among others. Customers are also charged fees associated with additional features and services offered in connection with certain products including the use of courtesy overdraft protection, bill payment options, custom card designs and card-to-card transfers of funds initiated through call centers. The Netspend segment also earns revenues from a portion of the interchange fees remitted by merchants when customers make purchase transactions using their products. Subject to applicable law, interchange fees are fixed by card associations and network organizations.

Below is a summary of the Netspend segment:

<i>(in thousands, except key indicators)</i>	Years Ended December 31,			Percent Change	
	2017	2016	2015	2017 vs. 2016	2016 vs. 2015
Net revenue <sup>1</sup>	<b>\$ 746,870</b>	663,579	580,377	<b>12.6 %</b>	14.3 %
Adjusted segment operating income <sup>2</sup>	<b>\$ 182,082</b>	160,371	137,837	<b>13.5</b>	16.3
Adjusted segment operating margin <sup>3</sup>	<b>24.4 %</b>	24.2 %	23.7 %		
Key indicators <i>(in millions)</i> :					
Gross dollar volume <sup>4</sup>	<b>\$ 32,034.8</b>	28,722.3	24,274.9	<b>11.5</b>	18.3
Number of active cards <sup>5</sup>	<b>4.9</b>	4.3	3.9	<b>14.2</b>	10.3
Number of active cards with direct deposit <sup>6</sup>	<b>2.4</b>	2.1	1.9	<b>12.1</b>	12.7
Percentage of active cards with direct deposit	<b>48.9 %</b>	49.7 %	48.7 %		

<sup>1</sup> Net revenue is defined as total revenues less reimbursable items (such as postage), as well as merchant acquiring interchange and payment network fees charged by the card associations or payment networks that are recorded by TSYS as expense.

<sup>2</sup> Adjusted segment operating income excludes acquisition intangible amortization and expenses associated with Corporate Administration and Other.

<sup>3</sup> Adjusted segment operating margin equals adjusted segment operating income divided by net revenue.

<sup>4</sup> Gross dollar volume represents the total dollar volume of debit transactions and cash withdrawals made using Netspend products.

<sup>5</sup> Number of active cards represents the total number of cards that have had a PIN or signature-based purchase transaction, a point-of-sale load transaction or an ATM withdrawal within three months of the date of determination, adjusted to remove prepaid cards that consumers upgraded to a demand deposit account during the period.

<sup>6</sup> Number of active cards with direct deposit represents the number of active cards that have had a direct deposit load within three months of the date of determination, adjusted to remove prepaid cards that consumers upgraded to a demand deposit account during the period.

Netspend segment revenues increased \$83.3 million for 2017 from 2016. This increase was comprised of \$48.6 million increase in service fee revenues and \$34.7 million increase in interchange and other revenues. Netspend segment revenues increased \$83.2 million for 2016, as compared to 2015. This increase was comprised of \$66.6 million increase in service fee revenues and \$16.6 million increase in interchange and other revenues.

For the year ended December 31, 2017, 69.5% of revenues were derived from service fees charged to customers and 30.5% of revenues were derived from interchange and other revenues. Service fee revenues are driven by the number of active cards and in particular by the number of cards with direct deposit. Customers with direct deposit generally initiate more transactions and generate more revenues than those that do not take advantage of this feature. Interchange revenues are driven by gross dollar volume. Substantially all of the Netspend segment revenues were volume driven as they were driven by the active card and gross dollar volume indicators.

As discussed in Note 25 in the Consolidated Financial Statements, in January 2018, the CFPB announced that it has finalized updates to its 2016 prepaid rule. The CFPB's prepaid rule put in place requirements for treatment of funds on lost or stolen cards, error resolution and investigation, upfront fee disclosures, access to account information, and overdraft features if offered in conjunction with prepaid accounts. The changes announced by the CFPB adjust requirements for resolving errors on unregistered accounts, provide greater flexibility for credit cards linked to digital wallets, and extend the effective date of the rule to April 2019. The Company will continue to review and interpret the new rule and analyze its expected impact on Netspend's business.

### Operating Expenses

The Company's operating expenses were \$4.2 billion, \$3.6 billion and \$2.2 billion in 2017, 2016 and 2015, respectively. Operating expenses consist of cost of services and selling, general and administrative expenses. Cost of services describes the direct expenses incurred in performing a particular service for customers, including the cost of direct labor expense in

putting the service in saleable condition. Selling, general and administrative expenses are incurred in selling or marketing and for the direction of the enterprise as a whole, including accounting, legal fees, sales, investor relations and mergers and acquisitions.

The changes in operating expenses for the years ended December 31, 2017 and 2016 include decreases of \$7.0 million and \$26.0 million, respectively, related to the effects of currency translation of the Company's foreign-based subsidiaries. TransFirst had an incremental year-over-year impact on operating expenses of \$417.3 million in 2017. Operating expenses for the year ended December 31, 2016 were also impacted by the TransFirst acquisition. Operating expenses increased \$1.3 billion due to the acquisition of TransFirst in 2016. Operating expenses in 2017 and 2016 were also impacted by \$1.9 million and \$21.7 million, respectively, of litigation settlement, settlement discussions and related legal expenses. In 2017, TSYS incurred an expense associated with a special one-time cash bonus of \$1,000 to certain employees as a result of the Company's continued success and to share some of the savings that will result from the Tax Act legislation passed in December 2017.

The Company's cost of services were \$3.6 billion, \$3.0 billion and \$1.9 billion in 2017, 2016 and 2015, respectively. The increases in cost of services are due to increases in employment, severance, technology and facilities and other costs to support revenue growth and the acquisition of TransFirst. The Company's selling, general and administrative expenses were \$616.6 million, \$603.6 million and \$390.3 million in 2017, 2016 and 2015, respectively. The increases in selling, general and administrative costs in 2017 and 2016 were due primarily to the acquisition of TransFirst in April 2016 and litigation settlement and settlement discussions. Expenses in 2015 were also impacted by certain one-time state tax benefits of \$15.6 million that resulted from prior years but were recognized in 2015.

The Company's transaction and integration expenses related to the acquisition of TransFirst in 2016 were \$32.3 million for the year ended December 31, 2016. These expenses consist of costs related to the completion of the acquisition such as legal, accounting and professional fees, as well as, personnel costs for severance and retention.

### Operating Income

Operating income increased 28.0% for the year ended December 31, 2017, compared to 2016. The Company's operating profit margin for the year ended December 31, 2017 was 14.9%, compared to 13.8% in 2016. TSYS' operating margins increased for the year ended December 31, 2017, as compared to 2016, due primarily to a decrease in the amount of acquisition and integration expenses. TSYS' operating margins decreased for the year ended December 31, 2016, as compared to 2015, due primarily to the increase in acquisition and integration expenses, severance and the operating results and lower operating margin of TransFirst.

### Nonoperating Income (Expense)

Nonoperating income (expense) consists of interest income, interest expense, and gains and losses on currency transactions. Nonoperating expense increased in 2017 as compared to 2016, and increased in 2016 as compared to 2015 primarily due to the increase in interest expense.

The following table provides a summary of nonoperating expense:

(in thousands)	Years Ended December 31,			Percent Change	
	2017	2016	2015	2017 vs. 2016	2016 vs. 2015
Interest expense <sup>1</sup>	\$ (118,221)	(115,363)	(40,701)	2.5 %	nm %
Interest income	2,193	1,840	1,450	19.2	26.9
Currency translation (losses) gains, net	(907)	1,748	(388)	nm	nm
Other	453	(575)	(904)	nm	nm
Total	\$ (116,482)	(112,350)	(40,543)	3.7	nm

nm = not meaningful

<sup>1</sup> Interest expense includes interest on bonds of \$98.2 million, \$84.6 million, and \$33.7 million, respectively, for the years ended December 31, 2017, 2016 and 2015.

Interest expense for the year ended December 31, 2017 increased \$2.9 million compared to 2016. The increase in interest expense in 2017 compared to 2016 is due to the debt financing of the acquisition of TransFirst in April 2016. Interest expense for the year ended December 31, 2016 increased \$74.6 million compared to 2015. The increase in interest expense in 2016 compared to 2015 is due to the debt financing of the acquisition of TransFirst in April 2016. Refer to Notes 11 and 22 in the Consolidated Financial Statements for more information on long-term borrowings and acquisitions.



## Income Taxes

Below is a summary of income tax expense:

(in thousands)	Years Ended December 31,			Percent Change	
	2017	2016	2015	2017 vs. 2016	2016 vs. 2015
Income tax expense	\$ 65,878	161,175	151,364	(59.1)%	6.5 %
Effective income tax rate	10.7 %	35.0 %	30.5 %		

During 2017, the Company generated income tax credits in excess of its utilization capacity based on both the Company's current operations and with consideration of future tax planning strategies. Based upon these same considerations, the Company reassessed its need for valuation allowances in all jurisdictions. Accordingly, the Company experienced a net increase in its valuation allowance for deferred income tax assets of \$8.2 million.

As a result of the Tax Cuts and Jobs Act of 2017, the Company realized a net tax benefit of \$135.9 million. This was primarily the result of remeasuring deferred tax assets and deferred tax liabilities.

In 2017, TSYS reassessed its uncertain tax positions for all jurisdictions. As a result, the Company increased unrecognized tax benefits by \$7.3 million.

Refer to Note 13 in the Consolidated Financial Statements for more information on income taxes.

## Equity in Income of Equity Investments

Below is a summary of TSYS' share of income from its interest in equity investments:

(in thousands)	Years Ended December 31,			Percent Change	
	2017	2016	2015	2017 vs. 2016	2016 vs. 2015
Equity in income of equity investments, net of tax	\$ 40,532	26,115	25,430	55.2 %	2.7 %

The increases in equity income in 2017 and 2016 are the result of organic growth in China Union Pay Data Co., Ltd (CUP Data). Refer to Note 10 in the Consolidated Financial Statements for more information on equity investments.

## Discontinued Operations

TSYS sold its Japan-based operations during 2014 and recorded income from discontinued operations, net of tax, of \$1.4 million for 2015.

## Net Income

The following table provides a summary of net income and EPS:

(in thousands, except per share data)	Years Ended December 31,			Percent Change	
	2017	2016	2015	2017 vs. 2016	2016 vs. 2015
Net income	\$ 592,216	325,972	369,041	81.7 %	(11.7)%
Net income attributable to noncontrolling interests	(6,031)	(6,334)	(4,997)	4.8	26.8
Net income attributable to TSYS common shareholders	\$ 586,185	319,638	364,044	83.4	(12.2)
Basic EPS attributable to TSYS common shareholders <sup>1</sup>	\$ 3.19	1.74	1.98	83.3	(12.0)
Diluted EPS attributable to TSYS common shareholders <sup>1</sup>	\$ 3.16	1.73	1.97	82.4	(11.8)

<sup>1</sup> Basic and diluted EPS is computed based on the two-class method in accordance with the guidance under GAAP. Refer to Note 24 in the Consolidated Financial Statements for more information on EPS.

Net income attributable to noncontrolling interests in 2017 decreased by \$0.3 million from 2016 and increased \$1.3 million in 2016 from 2015. The decrease in 2017 compared to 2016 is the result of TSYS acquiring an additional 10% ownership in Central Payment Co. LLC (CPAY) in 2017 partially offset by an increase in operating results of CPAY. Refer to Note 22 in the

Consolidated Financial Statements for more information. The increase in 2016 compared to 2015 is driven by the increased operating results of CPAY.

### Non-GAAP Financial Measures

Management evaluates the Company's operating performance based upon operating margin on a net revenue basis, adjusted EBITDA, consolidated adjusted operating margin, adjusted diluted EPS and free cash flow which are all non-generally accepted accounting principles (non-GAAP) measures. TSYS also uses these non-GAAP financial measures to evaluate and assess TSYS' financial performance against budget.

Although non-GAAP financial measures are often used to measure TSYS' operating results and assess its financial performance, they are not necessarily comparable to similarly titled measures of other companies due to potential inconsistencies in the method of calculation.

TSYS believes that its provision of non-GAAP financial measures provides investors with important key financial performance indicators that are utilized by management to assess TSYS' operating results, evaluate the business and make operational decisions on a prospective, going-forward basis. Hence, management provides disclosure of non-GAAP financial measures to give shareholders and potential investors an opportunity to see TSYS as viewed by management, to assess TSYS with some of the same tools that management utilizes internally and to be able to compare such information with prior periods. TSYS believes that inclusion of non-GAAP financial measures provides investors with additional information to help them better understand its financial statements just as management utilizes these non-GAAP financial measures to understand the business, manage budgets and allocate resources.

The following tables provide a reconciliation of GAAP to non-GAAP financial measures:

<b>Net Revenue and Operating Margin on a Net Revenue Basis</b>			
<i>(in thousands)</i>	<b>Years Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Operating income (GAAP) (a)	<b>\$ 734,044</b>	<b>573,382</b>	<b>534,107</b>
Total revenues (GAAP) (b)	<b>\$ 4,927,965</b>	<b>4,170,077</b>	<b>2,779,541</b>
Less: reimbursable items, interchange and payment network fees	<b>1,527,633</b>	<b>1,128,201</b>	<b>280,192</b>
Net revenue (non-GAAP) (c)	<b>\$ 3,400,332</b>	<b>3,041,876</b>	<b>2,499,349</b>
Operating margin (as reported) (GAAP) (a)/(b)	<b>14.90 %</b>	<b>13.75 %</b>	<b>19.22 %</b>
Operating margin on a net revenue basis (non-GAAP) (a)/(c)	<b>21.59 %</b>	<b>18.85 %</b>	<b>21.37 %</b>



**Adjusted EBITDA**

<i>(in thousands)</i>	Years Ended December 31,		
	2017	2016	2015
Net income (GAAP)(a)	\$ 592,216	325,972	369,041
Adjust for:			
Less: Income from discontinued operations	—	—	(1,411)
Less: Equity in income of equity investments	(40,532)	(26,115)	(25,430)
Add: Income tax expense	65,878	161,175	151,364
Add: Interest expense, net	116,028	113,523	39,251
Add: Depreciation and amortization	405,906	373,546	258,264
Add/Less: Loss/(gain) on foreign currency translation	907	(1,748)	388
Add/Less: Other nonoperating (income) expenses	(453)	575	904
Add: Share-based compensation	42,409	43,728	41,549
Add: TransFirst and Cayan M&A and integration expenses <sup>1</sup>	13,367	28,176	—
Add: Litigation, claims, judgments or settlements <sup>2</sup>	1,947	21,719	—
Adjusted EBITDA (non-GAAP)(b)	\$ 1,197,673	1,040,551	833,920
Total revenues (c)	\$ 4,927,965	4,170,077	2,779,541
Net income margin on total revenues (GAAP) (a)/(c)	12.0 %	7.8 %	13.3 %
Net revenue (d)	\$ 3,400,332	3,041,876	2,499,349
Adjusted EBITDA margin on net revenue (non-GAAP) (b)/(d)	35.2 %	34.2 %	33.4 %

<sup>1</sup> Costs associated with the TransFirst and Cayan acquisitions which are included in selling, general and administrative expenses and nonoperating expenses.

<sup>2</sup> Litigation settlement or settlement discussions and related legal expenses.

**Adjusted Earnings and Adjusted Diluted Earnings Per Share**

<i>(in thousands, except per share data)</i>	Years Ended December 31,		
	2017	2016	2015
Income attributable to TSYS common shareholders from continuing operations (GAAP)	\$ 586,185	\$ 319,638	362,633
Adjust for amounts attributable to TSYS common shareholders:			
Add: Acquisition intangible amortization	207,172	188,887	91,418
Add: Share-based compensation	42,399	43,691	41,535
Add: TransFirst and Cayan M&A and integration expenses <sup>1</sup>	13,306	37,957	—
Add: Litigation, claims, judgments or settlements <sup>2</sup>	1,947	19,913	—
Less: Tax impact of adjustments <sup>3</sup>	(90,955)	(93,667)	(43,474)
Less: Impact of Tax Cuts and Jobs Act <sup>4</sup>	(135,871)	—	—
Adjusted earnings (non-GAAP)	\$ 624,183	\$ 516,419	\$ 452,112
Diluted EPS - Income from continuing operations attributable to TSYS common shareholders:			
As reported (GAAP)	\$ 3.16	1.73	1.96
Adjusted diluted EPS (non-GAAP)	\$ 3.37	2.80	2.46
Weighted average diluted shares	185,430	184,448	185,239

<sup>1</sup> Costs associated with the TransFirst and Cayan acquisitions which are included in selling, general and administrative expenses and nonoperating expenses.

<sup>2</sup> Litigation settlement or settlement discussions and related legal expenses.

<sup>3</sup> Certain of these merger and acquisition costs are nondeductible for income tax purposes. Income tax impact includes a discrete item as a result of the acquisition.

<sup>4</sup> On December 22, 2017, President Trump signed into law the Tax Act. Based on its preliminary analysis of the Tax Act, including the reduction in the federal corporate tax rate, TSYS estimates that it will receive an additional, non-recurring income tax benefit of approximately \$135.9 million due to the reduction of certain deferred tax liabilities and the repatriation of foreign earnings as a result of the Tax Act.

**Free Cash Flow**

<i>(in thousands)</i>	Years Ended December 31,		
	2017	2016	2015
Net cash provided by operating activities (GAAP)	<b>\$ 856,492</b>	718,029	602,034
Capital expenditures	<b>(196,026)</b>	(142,573)	(203,315)
Free cash flow (non-GAAP)	<b>\$ 660,466</b>	575,456	398,719

## Financial Position, Liquidity and Capital Resources

The Consolidated Statements of Cash Flows detail the Company's cash flows from operating, investing and financing activities. TSYS' primary methods for funding its operations and growth have been cash generated from current operations, the use of leases and the occasional use of borrowed funds to supplement financing of capital expenditures.

### Cash Flows from Operating Activities

<i>(in thousands)</i>	Years Ended December 31,		
	2017	2016	2015
Net income	<b>\$ 592,216</b>	325,972	369,041
Depreciation and amortization	<b>405,906</b>	373,546	258,264
Other noncash items and charges, net	<b>(67,217)</b>	106,033	51,172
Net change in current and other assets and current and other liabilities	<b>(74,413)</b>	(87,522)	(76,443)
Net cash provided by operating activities	<b>\$ 856,492</b>	718,029	602,034

TSYS' main source of funds is derived from operating activities, specifically net income. The increase in 2017, as compared to 2016, in net cash provided by operating activities was primarily the result of the combined increase of the net earnings of the Company and the impact of TransFirst. The increase in 2016, as compared to 2015, in net cash provided by operating activities was primarily the result of the combined increase of noncash charges, such as depreciation and amortization, the net earnings of the Company, and the impact of TransFirst.

Net change in current and other assets and current and other liabilities includes accounts receivable, prepaid expenses, other current assets and other assets, accounts payable, accrued salaries and employee benefits and other liabilities. The change in accounts receivable between the years is the result of timing of collections compared to billings. The change in accounts payable and other liabilities for each of the years presented is the result of the timing of receiving vendor invoices and the timing of payments.

### Cash Flows from Investing Activities

<i>(in thousands)</i>	Years Ended December 31,		
	2017	2016	2015
Cash used in acquisitions, net of cash acquired	<b>\$ -</b>	(2,345,493)	(750)
Purchases of property and equipment	<b>(70,039)</b>	(51,132)	(54,640)
Additions to contract acquisition costs	<b>(69,806)</b>	(45,847)	(58,728)
Additions to internally developed computer software	<b>(30,265)</b>	(34,043)	(39,219)
Additions to licensed computer software from vendors	<b>(25,916)</b>	(11,551)	(50,729)
Other investing activities	<b>(2,718)</b>	(4,930)	42
Net cash used in investing activities	<b>\$ (198,744)</b>	(2,492,996)	(204,024)

The major uses of cash for investing activities in 2017, 2016 and 2015 were for acquisitions, purchases of property and equipment, additions to contract acquisition costs, internally developed computer software and licensed computer software from vendors.

#### *Cash Used in Acquisitions*

In 2016, the Company used cash of \$2.3 billion in connection with the acquisition of TransFirst.

## Property and Equipment

Capital expenditures for property and equipment were \$70.0 million in 2017, compared to \$51.1 million in 2016 and \$54.6 million in 2015. The majority of capital expenditures in 2017, 2016 and 2015 related to computer processing hardware.

## Contract Acquisition Costs

TSYS makes cash payments for processing rights, third-party development costs and other direct salary-related costs in connection with converting new customers to the Company's processing systems. The Company's investments in contract acquisition costs were \$69.8 million in 2017, \$45.8 million in 2016 and \$58.7 million in 2015. The Company made cash payments for processing rights of \$48.6 million, \$25.8 million and \$29.6 million in 2017, 2016 and 2015, respectively. Conversion cost additions were \$21.3 million, \$20.0 million and \$29.1 million in 2017, 2016 and 2015, respectively. The decreases in conversion costs in 2017 and 2016, as compared to 2015, are primarily related to the timing of conversions of card portfolios.

## Internally Developed Computer Software Costs

Additions to capitalized software development costs, including enhancements to, and development of, processing systems were \$30.3 million in 2017, \$34.0 million in 2016 and \$39.2 million in 2015. The changes in capitalized software development costs in 2017 and 2016, as compared to 2015, were the result of a decrease in the level of activity in a multi-year, multi-phase initiative that consists of enhancing TSYS' issuing processing platforms.

## Licensed Computer Software from Vendors

Capital expenditures for licensed computer software from vendors for increases in processing capacity were \$25.9 million in 2017, compared to \$11.6 million in 2016 and \$50.7 million in 2015. The higher capital expenditures in 2015 were due primarily to the extension of existing mainframe and distributed software agreements.

## Purchases of Private Equity Investments

The Company is a party to partnership agreements in connection with investing in two Atlanta-based venture capital funds focused exclusively on investing in technology-enabled financial services companies. Pursuant to each limited partnership agreement, the Company has committed to invest up to \$20.0 million in each fund so long as its ownership interest in each fund does not exceed 50%. The Company made investments in the funds of \$2.7 million, \$4.9 million and \$3.5 million in 2017, 2016 and 2015, respectively.

## Cash Flows from Financing Activities

<i>(in thousands)</i>	Years Ended December 31,		
	2017	2016	2015
Proceeds from long-term borrowings	\$ 200,000	2,666,295	1,912
Proceeds from exercise of stock options	21,832	11,708	58,636
Excess tax benefit from share-based payment arrangements	-	9,905	24,357
Subsidiary dividends paid to noncontrolling shareholders	(5,997)	(5,548)	(5,028)
Purchase of noncontrolling interests	(70,000)	(5,878)	-
Debt issuance costs	-	(26,555)	-
Repurchases of common stock under plans and tax withholding	(284,237)	(30,275)	(242,235)
Dividends paid on common stock	(79,017)	(73,378)	(73,677)
Principal payments on long-term borrowings and capital lease obligations	(421,306)	(724,084)	(54,719)
Net cash provided by (used in) financing activities	\$ (638,725)	1,822,190	(290,754)

Net cash used in financing activities for the year ended December 31, 2017 was primarily related to principal payments on long-term borrowings and capital lease obligations, repurchases of common stock, dividends paid on common stock, as well as the purchase of noncontrolling interests. Cash provided by financing activities for the year ended December 31, 2017 primarily relate to proceeds from long-term borrowings.

Net cash provided by financing activities for the year ended December 31, 2016 was primarily related to the proceeds from long-term borrowings in connection with the TransFirst acquisition. Cash used in financing activities for the year ended

December 31, 2016 primarily related to principal payments on long-term borrowings and capital lease obligations, as well as dividends paid on common stock.

Net cash used in financing activities for the year ended December 31, 2015 was primarily related to repurchases of common stock and principal payments on long-term borrowings and capital lease obligations. Cash provided by financing activities for the year ended December 31, 2015 primarily related to proceeds from the exercise of stock options.

Refer to Notes 11 and 22 in the Consolidated Financial Statements for more information on the long-term debt financing and acquisitions.

### *Borrowings*

Refer to Note 11 in the Consolidated Financial Statements for further information on borrowings.

### *Purchase of Noncontrolling Interest*

In connection with the acquisition of CPAY, the Company is party to call and put arrangements with respect to the membership units that represent the remaining noncontrolling interest of CPAY. The call arrangement is exercisable by TSYS and the put arrangement is exercisable by the Seller. The put arrangement is outside the control of the Company by requiring the Company to purchase the Seller's entire equity interest in CPAY at a put price at fair value. At the time of the original acquisition, the redemption of the put option was considered probable based upon the passage of time of the second anniversary date. The put arrangement is recorded on the consolidated balance sheet and is classified as redeemable noncontrolling interest in consolidated subsidiary outside of permanent equity.

In February 2017, the Company acquired an additional 10% equity interest in CPAY from a privately owned company for \$70.0 million. This purchase reduced the remaining redeemable noncontrolling interest in CPAY to 15% of its total outstanding equity and extended the put call arrangement until April 2018. The transaction resulted in a decrease to noncontrolling interest of \$9.8 million and a decrease to additional paid-in-capital of \$60.2 million.

The put option was not redeemable on December 31, 2017, but redemption was considered probable based upon the passage of time toward the April 2018 date. The Company's accounting policy is to accrete changes in the redemption value over the period from the date of issuance to the earliest redemption date, which the Company believes to be in 2018. The Company recorded accretion in fair value of \$101.4 million for the year ended December 31, 2017 using the effective interest method.

Refer to Note 22 in the Consolidated Financial Statements for more information on this purchase.

### *Stock Repurchase Plan*

In January 2015, TSYS announced that its Board had approved a stock repurchase plan to repurchase up to 20 million shares of TSYS stock. The shares may be purchased from time to time at prices considered appropriate. There is no expiration date for the plan. Through December 31, 2017, the Company purchased 9.5 million shares for approximately \$549.0 million at an average price of \$57.79.

### *Dividends*

Dividends on common stock of \$79.0 million were paid in 2017, compared to \$73.4 million and \$73.7 million in 2016 and 2015, respectively. The Company increased its quarterly dividend from \$0.10 to \$0.13 per share in July 2017. For 2017, the Company paid dividends of \$0.46 per share, compared to dividends of \$0.40 per share in 2016 and 2015.

### *Significant Noncash Transactions*

During 2017, 2016 and 2015, the Company issued 329,051, 362,804 and 388,211 shares of common stock, respectively, to certain key employees and non-management members of its Board of Directors. The grants to certain key employees were issued in the form of nonvested stock bonus awards for services to be provided in the future by such officers and employees. The market value of the common stock at the date of issuance is amortized as share-based compensation expense over the vesting period of the awards. The grants to the Board of Directors were fully vested on the date of grant.

The Company acquired computer equipment under capital leases and software under license agreements in the amount of \$40.8 million, \$1.8 million and \$4.1 million in 2017, 2016 and 2015, respectively.

Refer to Notes 17 and 21 in the Consolidated Financial Statements for more information on share-based compensation and significant noncash transactions.

## Additional Cash Flow Information

### Off-Balance Sheet Financing

TSYS uses various operating leases in its normal course of business. These "off-balance sheet" arrangements obligate TSYS to make payments for computer equipment, software and facilities. These computer and software lease commitments may be replaced with new lease commitments due to new technology. Management expects that, as these leases expire, they will be evaluated and renewed or replaced by similar leases based on need.

The following table summarizes future contractual cash obligations, including lease payments and software arrangements, as of December 31, 2017, for the next five years and thereafter:

	Contractual Cash Obligations				
	Payments Due By Period				
	Total	1 Year or Less	2-3 Years	4-5 Years	After 5 Years
<i>(in thousands)</i>					
Debt obligations (principal)	\$ 3,170,000	\$ 560,000	80,000	1,230,000	1,300,000
Debt obligations (interest) <sup>1</sup>	567,082	109,104	202,461	125,204	130,313
Operating leases	392,211	118,576	173,008	49,322	51,305
Purchase commitments	117,765	27,290	46,649	17,576	26,250
Redeemable noncontrolling interest	115,689	115,689	—	—	—
Capital lease obligations and license agreements	47,764	8,102	15,227	12,952	11,483
Total contractual cash obligations	\$ 4,410,512	\$ 938,761	517,345	1,435,054	1,519,351

<sup>1</sup> Amounts utilize prevailing interest rates as of December 31, 2017.

### Income Taxes

The total liability for uncertain tax positions as of December 31, 2017 is \$23.8 million. Refer to Note 13 in the Consolidated Financial Statements for more information on income taxes. The Company is not able to reasonably estimate the amount by which the liability will increase or decrease over time; however, at this time, the Company does not expect any significant changes related to these obligations within the next twelve months.

## Foreign Operations

TSYS operates internationally and is subject to adverse movements in foreign currency exchange rates. On June 23, 2016, the United Kingdom (U.K.) held a referendum in which voters approved an exit from the European Union (E.U.), commonly referred to as "Brexit." As a result, global markets were adversely impacted, including currencies, and resulted in a decline in the value of the British pound, as compared to the U.S. dollar and other currencies. Uncertainty over the terms of the withdrawal of the U.K. from the E.U. may create global economic uncertainty, and have unknown social and geopolitical impact, which may adversely affect the Company's business, results of operations and financial condition. TSYS has not entered into foreign exchange forward contracts to reduce its exposure to foreign currency rate changes. TSYS continues to analyze potential hedging instruments to safeguard it from significant foreign currency translation risks.

TSYS maintains operating cash accounts outside the United States. Refer to Note 3 in the Consolidated Financial Statements for more information on cash and cash equivalents. TSYS has adopted the permanent reinvestment exception under GAAP with respect to future earnings of certain foreign subsidiaries. While some of the foreign cash is available to repay intercompany financing arrangements, some remaining amounts may not be presently available to fund domestic operations and obligations without paying withholding taxes upon its repatriation. Demand on the Company's cash has increased as a result of its strategic initiatives. TSYS funds these initiatives through a balance of internally generated cash, external sources of capital and, when advantageous, access to foreign cash in a tax efficient manner. Where local regulations limit an efficient intercompany transfer of amounts held outside of the U.S., TSYS will continue to utilize these funds for local liquidity needs. Under current law, balances available to be repatriated to the U.S. may be subject to foreign withholding taxes. Pursuant to the Tax Cuts and Jobs Act of 2017, TSYS has provided for the U.S. federal tax liability on these amounts for financial statement purposes. TSYS utilizes a variety of tax planning and financing strategies with the objective of having its worldwide cash available in the locations where it is needed.



## Impact of Inflation

Although the impact of inflation on its operations cannot be precisely determined, the Company believes that by controlling its operating expenses and by taking advantage of more efficient computer hardware and software, it can minimize the impact of inflation.

## Working Capital

TSYS may seek additional external sources of capital in the future. The form of any such financing will vary depending upon prevailing market and other conditions and may include short-term or long-term borrowings from financial institutions or the issuance of additional equity and/or debt securities such as local industrial revenue bonds. However, there can be no assurance that funds will be available on terms acceptable to TSYS. Management expects that TSYS will continue to be able to fund a significant portion of its capital expenditure needs through internally generated cash in the future, as evidenced by TSYS' current ratio of 1.1:1. As of December 31, 2017, TSYS had working capital of \$90.2 million, compared to \$602.3 million in 2016 and \$519.3 million in 2015. The change in working capital was the result of \$550 million of Senior Notes due June 1, 2018 being classified as short-term in June 2017.

## Legal Proceedings

Refer to Note 14 in the Consolidated Financial Statements for information regarding the Company's commitments and contingencies including legal proceedings.

## Forward-Looking Statements

Certain statements contained in this filing which are not statements of historical fact constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act (the Act). These forward-looking statements include, among others: (i) TSYS' expectation with respect to the effect of recent accounting pronouncements; (ii) TSYS' expectation that it will be able to fund a significant portion of its capital expenditure needs through internally generated cash in the future; (iii) TSYS' belief with respect to lawsuits, claims and other complaints; (iv) TSYS' expectation with respect to certain tax matters; (v) the Board's intention to continue to pay cash dividends; and the assumptions underlying such statements. In addition, certain statements in future filings by TSYS with the Securities and Exchange Commission, in press releases, and in oral and written statements made by or with the approval of TSYS which are not statements of historical fact constitute forward-looking statements within the meaning of the Act. Examples of forward-looking statements include, but are not limited to: (i) projections of revenue, income or loss, earnings or loss per share, the payment or nonpayment of dividends, capital structure and other financial items; (ii) statements of plans and objectives of TSYS or its management or Board of Directors, including those relating to products or services; (iii) statements of future economic performance; and (iv) statements of assumptions underlying such statements. Words such as "believes," "anticipates," "expects," "intends," "targeted," "estimates," "projects," "plans," "may," "could," "should," "would," and similar expressions are intended to identify forward-looking statements but are not the exclusive means of identifying these statements.

These statements are based upon the current beliefs and expectations of TSYS' management and are subject to significant risks and uncertainties. Actual results may differ materially from those contemplated by the forward-looking statements. A number of important factors could cause actual results to differ materially from those contemplated by the Company's forward-looking statements. Many of these factors are beyond TSYS' ability to control or predict. These factors include, but are not limited to:

- the material breach of security of any of TSYS' systems;
- TSYS incurs expenses associated with the signing of a significant client;
- organic growth rates for TSYS' existing clients are lower than anticipated whether as a result of unemployment rates, card delinquencies and charge off rates or otherwise or attrition rates of existing clients are higher than anticipated;
- conversions and reconversions of client portfolios may not occur as scheduled;
- risks associated with foreign operations, including adverse developments with respect to foreign currency exchange rates, and in particular with respect to the current environment, adverse developments with respect to foreign currency exchange rates as a result of the United Kingdom's decision to leave the European Union (Brexit);
- adverse developments with respect to entering into contracts with new clients and retaining current clients;

- consolidation in the financial services and other industries, including the merger of TSYS clients with entities that are not TSYS processing clients, the sale of portfolios by TSYS clients to entities that are not TSYS processing clients and financial institutions which are TSYS clients otherwise ceasing to exist;
- the impact of the Dodd-Frank Wall Street Reform and Consumer Protection Act on TSYS and its clients;
- adverse developments with respect to the payment card industry in general, including a decline in the use of cards as a payment mechanism;
- the impact of potential and completed acquisitions, particularly the completed TransFirst and Cayan acquisitions, including the costs associated therewith, their being more difficult to integrate than anticipated, and the inability to achieve the anticipated growth opportunities and other benefits of the acquisitions;
- the costs and effects of litigation, investigations or similar matters or adverse facts and developments relating thereto;
- the impact of the application of and/or changes in accounting principles;
- TSYS' inability to timely, successfully and cost-effectively improve and implement processing systems to provide new products, increased functionality and increased efficiencies;
- TSYS' reliance on financial institution sponsors;
- changes occur in laws, rules, regulations, credit card association rules, prepaid industry rules, or other industry standards affecting TSYS and its clients that may result in costly new compliance burdens on TSYS and its clients and lead to a decrease in the volume and/or number of transactions processed or limit the types and amounts of fees that can be charged to customers, and in particular the CFPB's new rule regarding prepaid financial products;
- the success of Netspend's business expansion strategies to offset the loss of revenue from the CFPB's new rule regarding prepaid financial products which will depend on, among other things, the rate of adoption of Netspend's new products both by consumers and its distribution partners, the rate of utilization of the various product features by cardholders and market and regulatory dynamics, and, in addition, the costs of compliance associated with the new rule;
- successfully managing the potential both for patent protection and patent liability in the context of rapidly developing legal framework for expansive patent protection;
- the effect of current domestic and worldwide economic and geopolitical conditions;
- the impact on TSYS' business, as well as on the risks set forth above, of various domestic or international military or terrorist activities or conflicts;
- other risk factors described in the "Risk Factors" and other sections of TSYS' Annual Report on Form 10-K for the fiscal year ended December 31, 2017 and other filings with the Securities and Exchange Commission; and
- TSYS' ability to manage the foregoing and other risks.

These forward-looking statements speak only as of the date on which they are made and TSYS disclaims any obligation to update any forward-looking statement as a result of new information, future developments or otherwise except as required by law.

## **Subsequent Events**

### *CFPB Finalizes Changes to Prepaid Accounts Rule*

On January 25, 2018, the CFPB announced that it has finalized updates to its 2016 prepaid rule. The CFPB's 2016 prepaid rule put in place requirements for treatment of funds on lost or stolen cards, error resolution and investigation, upfront fee disclosures, access to account information, and overdraft features if offered in conjunction with prepaid accounts. The changes announced by the CFPB adjust requirements for resolving errors on unregistered accounts, provide greater flexibility for credit cards linked to digital wallets, and extend the effective date of the rule by one year to April 2019.

### *Acquisition of Cayan*

On December 18, 2017, TSYS announced it entered into an agreement to acquire Cayan, a payment technology company focused on integrated payment solutions and merchant acquiring, in an all cash transaction valued at approximately \$1.05

billion. On January 11, 2018, the Company completed the acquisition of Cayan. The Company funded the acquisition through a combination of cash-on-hand and proceeds from borrowings, including the credit agreement discussed below.

### *Term Loan Facility*

On January 10, 2018, TSYS entered into a Credit Agreement (the "Credit Agreement") with Bank of America, N.A. as Administrative Agent, and other lenders party thereto from time to time. The Credit Agreement provides the Company with a \$450 million two-year term loan facility (the "Term Loan Facility"). The Term Loan Facility was used to finance, in part, the Company's acquisition of Cayan.

Borrowings under the Credit Agreement will accrue interest at the base rate (as defined in the Credit Agreement) or, for certain euro-denominated borrowings, the London Interbank Offered Rate ("LIBOR"), in each case plus a margin based on the Company's corporate credit ratings. The applicable margin for loans bearing interest based on LIBOR ranges from 1.000% to 1.750%. The applicable margin for loans bearing interest based on the base rate ranges from 0.000% to 0.750%.

The Credit Agreement contains customary covenants regarding, among other matters, the maintenance of insurance, the preservation and maintenance of the Company's corporate existence, material compliance with laws and the payment of taxes and other material obligations. The Credit Agreement also contains financial covenants requiring the maintenance as of the end of each fiscal quarter of (i) a minimum fixed charge coverage ratio of 2.5 to 1.0 and (ii) a maximum consolidated leverage ratio of 3.5 to 1.0, which may be increased upon the occurrence of certain events (including the consummation of the acquisition of Cayan).

Management performed an evaluation of the Company's activity as of the date these audited financial statements were issued and has concluded that, other than as set forth above, there are no significant events requiring disclosure.

# Consolidated Balance Sheets

<i>(in thousands, except per share data)</i>	December 31,	
	2017	2016
<b>Assets</b>		
Current assets:		
Cash and cash equivalents (Note 3)	\$ 450,357	425,354
Accounts receivable, net of allowances for doubtful accounts and billing adjustments of \$5.9 million and \$4.8 million as of 2017 and 2016, respectively	412,322	432,847
Prepaid expenses and other current assets (Note 4)	216,565	164,488
Total current assets	1,079,244	1,022,689
Goodwill (Notes 1 and 5)	3,264,071	3,270,952
Other intangible assets, net of accumulated amortization of \$600.9 million and \$420.6 million as of 2017 and 2016, respectively (Note 6)	727,146	906,676
Intangible assets - computer software, net of accumulated amortization of \$849.3 million and \$757.4 million as of 2017 and 2016, respectively (Note 7)	383,715	423,188
Property and equipment, net of accumulated depreciation and amortization of \$521.1 million and \$480.7 million as of 2017 and 2016, respectively (Note 8)	325,218	282,345
Contract acquisition costs, net of accumulated amortization of \$342.7 million and \$309.7 million as of 2017 and 2016, respectively (Note 9)	258,665	235,700
Equity investments, net (Note 10)	163,518	133,556
Deferred income tax assets (Note 13)	6,091	7,055
Other assets	124,021	84,016
Total assets	\$ 6,331,689	6,366,177
<b>Liabilities</b>		
Current liabilities:		
Current portion of long-term borrowings (Note 11)	\$ 559,050	48,040
Accounts payable	62,310	38,712
Accrued salaries and employee benefits	82,135	67,655
Current portion of obligations under capital leases and license agreements (Note 11)	6,762	2,687
Other current liabilities (Note 12)	278,835	263,259
Total current liabilities	989,092	420,353
Long-term borrowings, excluding current portion (Note 11)	2,591,949	3,312,215
Deferred income tax liabilities (Note 13)	238,317	419,552
Obligations under capital leases and license agreements, excluding current portion (Note 11)	36,053	1,061
Other long-term liabilities	119,596	88,983
Total liabilities	3,975,007	4,242,164
<b>Redeemable noncontrolling interest in consolidated subsidiary</b>	<b>115,689</b>	<b>24,093</b>
Commitments and contingencies (Note 14)		
<b>Shareholders' Equity</b>		
Shareholders' equity:		
Common stock- \$0.10 par value. Authorized 600,000 shares; 202,765 issued as of 2017 and 2016; 180,903 and 183,451 outstanding as of 2017 and 2016, respectively	20,277	20,276
Additional paid-in capital	162,806	279,627
Accumulated other comprehensive loss, net (Note 19)	(36,148)	(56,158)
Treasury stock, at cost (21,862 and 19,314 shares as of 2017 and 2016, respectively (Note 18)	(909,960)	(646,047)
Retained earnings	3,004,018	2,502,222
Total shareholders' equity	2,240,993	2,099,920
Total liabilities and shareholders' equity	\$ 6,331,689	6,366,177

See accompanying Notes to Consolidated Financial Statements

# Consolidated Statements of Income

<i>(in thousands, except per share data)</i>	Years Ended December 31,		
	2017	2016	2015
Total revenues (Note 20)	\$ 4,927,965	4,170,077	2,779,541
Cost of services	3,577,320	2,993,062	1,855,181
Selling, general and administrative expenses	616,601	603,633	390,253
Total operating expenses	4,193,921	3,596,695	2,245,434
Operating income	734,044	573,382	534,107
Nonoperating expenses, net	(116,482)	(112,350)	(40,543)
Income before income taxes and equity in income of equity investments	617,562	461,032	493,564
Income taxes (Note 13)	65,878	161,175	151,364
Income before equity in income of equity investments	551,684	299,857	342,200
Equity in income of equity investments, net of tax	40,532	26,115	25,430
Income from continuing operations, net of tax	592,216	325,972	367,630
Income from discontinued operations, net of tax	—	—	1,411
Net income	\$ 592,216	325,972	369,041
Net income attributable to noncontrolling interests	(6,031)	(6,334)	(4,997)
Net income attributable to Total System Services, Inc. (TSYS) common shareholders	\$ 586,185	319,638	364,044
Basic earnings per share (EPS) attributable to TSYS common shareholders (Note 24):			
Income from continuing operations to TSYS common shareholders	\$ 3.19	1.74	1.97
Gain from discontinued operations to TSYS common shareholders	—	—	0.01
Net income attributable to TSYS common shareholders	\$ 3.19	1.74	1.98
Diluted EPS attributable to TSYS common shareholders (Note 24):			
Income from continuing operations to TSYS common shareholders	\$ 3.16	1.73	1.96
Gain from discontinued operations to TSYS common shareholders	—	—	0.01
Net income attributable to TSYS common shareholders	\$ 3.16	1.73	1.97
Amounts attributable to TSYS common shareholders:			
Income from continuing operations	\$ 586,185	319,638	362,633
Gain from discontinued operations	—	—	1,411
Net income	\$ 586,185	319,638	364,044

See accompanying Notes to Consolidated Financial Statements



# Consolidated Statements of Comprehensive Income

<i>(in thousands)</i>	Years Ended December 31,		
	2017	2016	2015
Net income	\$ 592,216	325,972	369,041
Other comprehensive income (loss), net of tax:			
Foreign currency translation adjustments	22,018	(30,801)	(21,719)
Postretirement healthcare plan adjustments	(592)	496	(1,567)
Unrealized (loss) gain on available-for-sale securities	(1,416)	7,359	1,398
Other comprehensive income (loss)	20,010	(22,946)	(21,888)
Comprehensive income	612,226	303,026	347,153
Comprehensive income attributable to noncontrolling interests	(6,031)	(6,002)	(4,727)
Comprehensive income attributable to TSYS common shareholders	\$ 606,195	297,024	342,426

See accompanying Notes to Consolidated Financial Statements

# Consolidated Statements of Cash Flows

(in thousands)	Years Ended December 31,		
	2017	2016	2015
<b>Cash flows from operating activities:</b>			
Net income	\$ 592,216	325,972	369,041
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	405,906	373,546	258,264
Provisions for cardholder losses	51,194	49,363	41,264
Share-based compensation	42,409	43,728	41,549
Provisions for bad debt expenses and billing adjustments	10,169	7,584	4,495
Charges for transaction processing provisions	11,716	5,351	6,976
Amortization of debt issuance costs	4,307	13,570	1,841
Dividends received from equity investments	20,589	15,246	12,097
Loss (gain) on foreign currency	907	(1,748)	388
Amortization of bond discount	907	750	397
Loss on disposal of equipment, net	2,307	774	(397)
Loss on impairment	1,298	-	-
Excess tax benefit from share-based payment arrangements	-	(9,905)	(24,357)
Deferred income tax (benefit) expense	(172,488)	7,435	(4,083)
Gain on disposal of subsidiaries	-	-	(3,568)
Equity in income of equity investments, net of tax	(40,532)	(26,115)	(25,430)
Changes in operating assets and liabilities, net of effects of acquisitions:			
Accrued salaries and employee benefits	13,538	(2,597)	29,168
Accounts receivable	(29,729)	(73,235)	(39,218)
Prepaid expenses, other current assets and other long-term assets	3,089	(58,345)	(7,372)
Accounts payable	17,653	(12,562)	(3,987)
Other current liabilities and other long-term liabilities	(78,964)	59,217	(55,034)
<b>Net cash provided by operating activities</b>	<b>856,492</b>	<b>718,029</b>	<b>602,034</b>
<b>Cash flows from investing activities:</b>			
Purchases of property and equipment	(70,039)	(51,132)	(54,640)
Additions to contract acquisition costs	(69,806)	(45,847)	(58,728)
Additions to internally developed computer software	(30,265)	(34,043)	(39,219)
Additions to licensed computer software from vendors	(25,916)	(11,551)	(50,729)
Cash used in acquisitions, net of cash acquired	-	(2,345,493)	(750)
Other investing activities	(2,718)	(4,930)	42
<b>Net cash used in investing activities</b>	<b>(198,744)</b>	<b>(2,492,996)</b>	<b>(204,024)</b>
<b>Cash flows from financing activities:</b>			
Principal payments on long-term borrowings, capital lease obligations and license agreements	(421,306)	(724,084)	(54,719)
Purchase of noncontrolling interest	(70,000)	(5,878)	-
Dividends paid on common stock	(79,017)	(73,378)	(73,677)
Subsidiary dividends paid to noncontrolling shareholders	(5,997)	(5,548)	(5,028)
Repurchase of common stock under plans and tax withholding	(284,237)	(30,275)	(242,235)
Debt issuance costs	-	(26,555)	-
Excess tax benefit from share-based payment arrangements	-	9,905	24,357
Proceeds from borrowings of long-term debt	200,000	2,666,295	1,912
Proceeds from exercise of stock options	21,832	11,708	58,636
<b>Net cash (used in) provided by financing activities</b>	<b>(638,725)</b>	<b>1,822,190</b>	<b>(290,754)</b>
<b>Cash and cash equivalents:</b>			
Effect of exchange rate changes on cash and cash equivalents	5,980	(11,197)	(7,111)
Net increase in cash and cash equivalents	25,003	36,026	100,145
Cash and cash equivalents at beginning of period	425,354	389,328	289,183
Cash and cash equivalents at end of period	\$ 450,357	425,354	389,328
<b>Supplemental cash flow information:</b>			
Interest paid	\$ 112,705	84,420	40,425
Income taxes paid, net	\$ 269,113	87,428	171,455

See accompanying Notes to Consolidated Financial Statements

# Consolidated Statements of Changes in Equity

	TSYS Shareholders								
	Redeemable Noncontrolling Interests	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Retained Earnings	Noncontrolling Interests	Total Equity
		Shares	Dollars						
<i>(in thousands, except per share data)</i>									
Balance as of December 31, 2014	\$ 22,492	202,775	\$ 20,278	171,270	(11,926)	(453,230)	1,966,370	6,882	\$ 1,699,644
Net income	5,945	-	-	-	-	-	364,044	(948)	363,096
Other comprehensive income (Note 19)	-	-	-	-	(21,618)	-	-	(270)	(21,888)
Common stock issued from treasury shares for exercise of stock options (Note 17)	-	-	-	12,273	-	46,363	-	-	58,636
Common stock unissued due to forfeiture of nonvested awards	-	(6)	(1)	702	-	(701)	-	-	-
Common stock issued from treasury shares for nonvested awards (Note 17)	-	-	-	(7,982)	-	7,982	-	-	-
Share-based compensation (Note 17)	-	-	-	41,179	-	-	-	-	41,179
Common stock issued from treasury shares for dividend equivalents (Note 17)	-	-	-	186	-	163	-	-	349
Cash dividends declared (\$0.40 per share)	-	-	-	-	-	-	(74,356)	-	(74,356)
Purchase of treasury shares (Note 18)	-	-	-	6	-	(242,241)	-	-	(242,235)
Subsidiary dividends paid to noncontrolling interests	(5,027)	-	-	-	-	-	-	-	-
Tax benefits associated with share-based compensation	-	-	-	24,257	-	-	-	-	24,257
Balance as of December 31, 2015	23,410	202,769	20,277	241,891	(33,544)	(641,664)	2,256,058	5,664	1,848,682
Net income	6,231	-	-	-	-	-	319,638	103	319,741
Other comprehensive income (Note 19)	-	-	-	-	(22,614)	-	-	(332)	(22,946)
Common stock issued from treasury shares for exercise of stock options (Note 17)	-	-	-	1,824	-	9,884	-	-	11,708
Common stock unissued due to forfeiture of nonvested awards	-	(4)	(1)	1,197	-	(1,196)	-	-	-
Common stock issued from treasury shares for nonvested awards (Note 17)	-	-	-	(17,204)	-	17,204	-	-	-
Share-based compensation (Note 17)	-	-	-	42,457	-	-	-	-	42,457
Cash dividends declared (\$0.40 per share)	-	-	-	-	-	-	(73,474)	-	(73,474)
Purchase of treasury shares (Note 18)	-	-	-	-	-	(30,275)	-	-	(30,275)
Subsidiary repurchase of noncontrolling interests	-	-	-	(443)	-	-	-	(5,435)	(5,878)
Subsidiary dividends paid to noncontrolling interests	(5,548)	-	-	-	-	-	-	-	-
Tax benefits associated with share-based compensation	-	-	-	9,905	-	-	-	-	9,905
Balance as of December 31, 2016	24,093	202,765	20,276	279,627	(56,158)	(646,047)	2,502,222	-	2,099,920
Net income	6,031	-	-	-	-	-	586,185	-	586,185
Other comprehensive income (Note 19)	-	-	-	-	20,010	-	-	-	20,010
Common stock issued from treasury shares for exercise of stock options (Note 17)	-	-	-	10,474	-	11,358	-	-	21,832
Common stock unissued due to forfeiture of nonvested awards	-	-	1	1,230	-	(1,231)	-	-	-
Common stock issued from treasury shares for nonvested awards (Note 17)	-	-	-	(10,197)	-	10,197	-	-	-
Share-based compensation (Note 17)	-	-	-	43,234	-	-	-	-	43,234
Cash dividends declared (\$0.46 per share)	-	-	-	-	-	-	(84,389)	-	(84,389)
Purchase of treasury shares (Note 18)	-	-	-	-	-	(284,237)	-	-	(284,237)
Adjustments to redemption value of redeemable noncontrolling interest	101,405	-	-	(101,405)	-	-	-	-	(101,405)
Subsidiary repurchase of noncontrolling interest	(9,843)	-	-	(60,157)	-	-	-	-	(60,157)
Subsidiary dividends paid to noncontrolling interest	(5,997)	-	-	-	-	-	-	-	-
Balance as of December 31, 2017	\$ 115,689	202,765	\$ 20,277	162,806	(36,148)	(909,960)	3,004,018	-	\$ 2,240,993

See accompanying Notes to Consolidated Financial Statements

# Notes to Consolidated Financial Statements

## Note 1: Basis of Presentation and Summary of Significant Accounting Policies

**BUSINESS:** Total System Services, Inc.'s (TSYS' or the Company's) revenues are derived from providing payment processing, merchant services and related payment services to financial and nonfinancial institutions, generally under long-term processing contracts. The Company also derives revenues by providing general-purpose reloadable (GPR) prepaid debit and payroll cards, demand deposit accounts and other financial services to underbanked and other consumers and businesses. The Company's services are provided through three operating segments: Issuer Solutions, Merchant Solutions and Netspend.

Through the Company's Issuer Solutions segment, TSYS processes information through its cardholder systems to financial and nonfinancial institutions throughout the United States and internationally. The Company's Merchant Solutions segment provides merchant services to merchant acquirers and merchants mainly in the United States. The Company's Netspend segment provides services to consumers in the United States.

**PRINCIPLES OF CONSOLIDATION AND BASIS OF PRESENTATION:** The accompanying consolidated financial statements, which are prepared in accordance with U.S. generally accepted accounting principles (GAAP) include the accounts of TSYS and its wholly- and majority-owned subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation. In addition, the Company evaluates its relationships with other entities to identify whether they are variable interest entities and to assess whether it is the primary beneficiary of such entities. If the determination is made that the Company is the primary beneficiary, then that entity is included in the consolidated financial statements.

**RISKS AND UNCERTAINTIES AND USE OF ESTIMATES:** Factors that could affect the Company's future operating results and cause actual results to vary materially from expectations include, but are not limited to, lower than anticipated growth from existing clients, an inability to attract new clients and grow internationally, loss of a major customer or other significant client, loss of a major supplier, an inability to grow through acquisitions or successfully integrate acquisitions, an inability to control expenses, technology changes, the impact of the application of and/or changes in accounting principles, financial services consolidation, changes in regulatory requirements, a decline in the use of cards as a payment mechanism, disruption of the Company's international operations, breach of the Company's security systems, a decline in the financial stability of the Company's clients and uncertain economic conditions. Negative developments in these or other risk factors could have a material adverse effect on the Company's financial position, results of operations and cash flows.

The Company has prepared the accompanying consolidated financial statements in conformity with U.S. GAAP. The preparation of the consolidated financial statements requires management of the Company to make a number of estimates and assumptions relating to the reported amounts of assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the period. These estimates and assumptions are developed based upon all information available. Actual results could differ from estimated amounts.

**ACQUISITIONS — PURCHASE PRICE ALLOCATION:** TSYS' purchase price allocation methodology requires the Company to make assumptions and to apply judgment to estimate the fair value of acquired assets and liabilities. TSYS estimates the fair value of assets and liabilities based upon appraised market values, the carrying value of the acquired assets and widely accepted valuation techniques, including the cost approach, discounted cash flows and market multiple analyses. Management determines the fair value of fixed assets and identifiable intangible assets such as developed technology or customer relationships, and any other significant assets or liabilities. TSYS adjusts the purchase price allocation, as necessary, up to one year after the acquisition closing date as TSYS obtains more information regarding asset valuations and liabilities assumed. Unanticipated events or circumstances may occur which could affect the accuracy of the Company's fair value estimates, including assumptions regarding industry economic factors and business strategies, and may result in an impairment or a new allocation of purchase price.

TSYS may allocate part of the purchase price of future acquisitions to contingent consideration as required by GAAP for business combinations. The fair value calculation of contingent consideration will involve a number of assumptions that are subjective in nature and which may differ significantly from actual results. TSYS may experience volatility in its earnings to some degree in future reporting periods as a result of these fair value measurements.

**DISCONTINUED OPERATIONS:** The Company sold all of its stock of GP Network Corporation (representing 54% ownership of the company) and all of its stock of TSYS Japan Godo Kaisha (representing 100% ownership of the company) in April 2014. In 2015, the Company recorded an additional gain of \$1.4 million, net of tax, related to the return of cash that was placed in escrow during closing and tax adjustments associated with the transaction.

**CASH AND CASH EQUIVALENTS:** Cash on hand and investments with a maturity of three months or less when purchased are considered to be cash equivalents.

**ACCOUNTS RECEIVABLE:** Accounts receivable balances are stated net of allowances for doubtful accounts and billing adjustments.

TSYS records an allowance for doubtful accounts when it is probable that the accounts receivable balance will not be collected. When estimating the allowance for doubtful accounts, the Company takes into consideration such factors as its day-to-day knowledge of the financial position of specific clients, the industry and size of its clients, the overall composition of its accounts receivable aging, prior history with specific customers of accounts receivable write-offs and prior experience of allowances in proportion to the overall receivable balance. This analysis includes an ongoing and continuous communication with its largest clients and those clients with past due balances. A financial decline of any one of the Company's large clients could have a material adverse effect on collectability of receivables and thus the adequacy of the allowance for doubtful accounts.

Increases in the allowance for doubtful accounts are recorded as charges to bad debt expense and are reflected in selling, general and administrative expenses in the Company's Consolidated Statements of Income. Write-offs of uncollectible accounts are charged against the allowance for doubtful accounts.

TSYS records an allowance for billing adjustments for actual and potential billing discrepancies. When estimating the allowance for billing adjustments, the Company considers its overall history of billing adjustments, as well as its history with specific clients and known disputes. Increases in the allowance for billing adjustments are recorded as a reduction of revenues in the Company's Consolidated Statements of Income and actual adjustments to invoices are charged against the allowance for billing adjustments.

**GOODWILL:** Goodwill results from the excess of cost over the fair value of net assets of businesses acquired. Goodwill is tested for impairment at least annually. Equity investment goodwill, which is not reported as goodwill in the Company's Consolidated Balance Sheet, but is reported as a component of the equity investment, was \$48.8 million and \$46.1 million as of December 31, 2017 and 2016, respectively.

**OTHER INTANGIBLE ASSETS:** Identifiable intangible assets relate primarily to merchant relationships, customer relationships, databases, channel relationships, covenants-not-to-compete, trade names and trade associations resulting from acquisitions. These identifiable intangible assets are amortized using the straight-line method over periods not exceeding the estimated useful lives, which range from three to ten years. Intangible assets with estimable useful lives are amortized over their respective estimated useful lives to their estimated residual values, and reviewed for impairment in accordance with GAAP. Amortization expenses are charged to selling, general and administrative expenses in the Company's Consolidated Statements of Income.

**LICENSED COMPUTER SOFTWARE:** The Company licenses software from third parties that is used in providing services to clients. Licensed software is obtained through perpetual licenses, term licenses, site licenses and through agreements based on processing capacity. Perpetual and site licenses are amortized using the straight-line method over their estimated useful lives which range from three to ten years. Term licenses are amortized over the term of the agreement. Mainframe software that is licensed based on processing capacity is amortized using a units-of-production basis over the estimated useful life of the software, generally not to exceed ten years. At each balance sheet date, the Company evaluates impairment losses on long-lived assets used in operations in accordance with GAAP.

**ACQUISITION TECHNOLOGY INTANGIBLES:** These identifiable intangible assets are software technology assets resulting from acquisitions. These assets are amortized using the straight-line method over periods not exceeding their estimated useful lives, which range from five to nine years. GAAP requires that intangible assets with estimated useful lives be amortized over their respective estimated useful lives to their residual values, and reviewed for impairment. Acquisition technology intangibles' net book values are included in computer software, net in the accompanying balance sheets. Amortization expenses are charged to cost of services in the Company's Consolidated Statements of Income.

**SOFTWARE DEVELOPMENT COSTS:** Costs of computer software to be sold, leased or otherwise marketed are capitalized once technological feasibility of the software product has been established. Costs incurred prior to establishing technological feasibility are expensed as incurred. Technological feasibility is established when the Company has completed a detailed program design and has determined that a product can be produced to meet its design specifications, including functions, features and technical performance requirements. Capitalization of costs ceases when the product is generally available to clients. In evaluating software development costs for recoverability, expected cash flows are estimated by management should events indicate a loss may have been triggered. The Company evaluates the unamortized capitalized costs of software development, the impairment of which is determined by expected undiscounted future operating cash flows of the



software as compared to the carrying amount of the software product. The amount by which the unamortized software development costs exceed the lower of the carrying amount or fair value is written off in the period that such determination is made. If the actual cash flows are not consistent with the Company's estimates, a material write-off may result and net income may be materially different than was initially recorded. Assumptions and estimates about future cash flows and remaining useful lives of software are complex and subjective. They can be affected by a variety of factors, including industry and economic trends, changes in the Company's business strategy and changes in the internal forecasts. The amount by which the unamortized software development costs exceed the net realizable value is written off in the period that such determination is made. Software development costs are amortized using the straight-line method over its estimated useful life, which ranges from three to ten years.

The Company also develops software that is used internally. Internal-use software development costs are capitalized once: (1) the preliminary project stage is completed, (2) management authorizes and commits to funding a computer software project, and (3) it is probable that the project will be completed and the software will be used to perform the function intended. Costs incurred prior to meeting the qualifications are expensed as incurred. Capitalization of costs ceases when the project is substantially complete and ready for its intended use. Internal-use software development costs are amortized using the straight-line method over its estimated useful life which ranges from three to ten years. Software development costs may become impaired in situations where development efforts are abandoned due to the viability of the planned project becoming doubtful or due to technological obsolescence of the planned software product.

**PROPERTY AND EQUIPMENT:** Property and equipment are stated at cost less accumulated depreciation and amortization. Depreciation and amortization are computed using the straight-line method over the estimated useful lives of the assets. Buildings and improvements are depreciated over estimated useful lives of 5-40 years, computer and other equipment over estimated useful lives of 2-5 years, and furniture and other equipment over estimated useful lives of 3-15 years. The Company evaluates impairment losses on long-lived assets used in operations in accordance with the provisions of GAAP. All ordinary repairs and maintenance costs are expensed as incurred. Maintenance costs that extend the asset life are capitalized and amortized over the remaining estimated life of the asset.

**CONTRACT ACQUISITION COSTS:** The Company capitalizes contract acquisition costs related to signing incentives for signing or renewing long-term contracts. The Company capitalizes internal conversion costs in accordance with GAAP.

Contract acquisition costs are amortized using the straight-line method over the contract term or the expected customer relationship period when a renewal is anticipated, beginning when the client's cardholder accounts are converted and producing revenues. The amortization of contract acquisition costs associated with cash payments for client incentives is included as a reduction of revenues in the Company's Consolidated Statements of Income. The amortization of contract acquisition costs associated with conversion activity is recorded as cost of services in the Company's Consolidated Statements of Income.

**EQUITY METHOD INVESTMENTS:** TSYS' 49% investment in Total System Services de México, S.A. de C.V. (TSYS de México), an electronic payment processing support operation located in Toluca, México, is accounted for using the equity method of accounting, as is TSYS' 44.56% investment in China UnionPay Data Co., Ltd. (CUP Data) headquartered in Shanghai, China. The Company has entered into limited partnership agreements in connection with investing in two Atlanta-based venture capital funds focused exclusively on investing in technology-enabled financial services companies. TSYS' equity investments are recorded initially at cost and subsequently adjusted for equity in earnings, cash contributions and distributions, and foreign currency translation adjustments.

**INCOME TAXES:** Income taxes reflected in TSYS' consolidated financial statements are computed based on the taxable income of TSYS and its affiliated subsidiaries. A consolidated U.S. federal income tax return is filed for TSYS and its majority-owned U.S. subsidiaries. Additionally, income tax returns are also filed in states where TSYS and its subsidiaries have filing obligations and in foreign jurisdictions where TSYS has a foreign affiliate.

The Company accounts for income taxes in accordance with the asset and liability method. Deferred income tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. Reserves against the carrying value of a deferred tax asset are established when necessary to reflect the decreased likelihood of realization of a deferred asset in the future. The effect on deferred income tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

Income tax provisions require the use of management judgments, which are subject to challenge by various taxing authorities. Contingency reserves are periodically established where the amount of the contingency can be reasonably determined and is

likely to occur. Reductions in contingency reserves are recognized when tax disputes are settled or examination periods lapse.

Significant estimates used in accounting for income taxes relate to the determination of taxable income, the determination of temporary differences between book and tax basis, as well as estimates on the realizability of tax credits and net operating losses.

TSYS recognizes potential interest and penalties related to the underpayment of income taxes as income tax expense in the Consolidated Statements of Income.

**UP-FRONT DISTRIBUTOR AND PARTNER PAYMENTS:** The Company makes up-front contractual payments to third-party distributors and partners. The Company assesses each up-front payment to determine whether it meets the criteria of an asset as defined by U.S. GAAP. If these criteria are met, the Company capitalizes the up-front payment and recognizes the capitalized amount as expense ratably over the benefit period, which is generally the contract period. If the contract requires the distributor or partner to perform specific acts (i.e., achieve a sales goal) and no other conditions exist for the distributor or partner to earn or retain the up-front payment, then the Company capitalizes the payment and recognizes it as an expense when the performance conditions have been met. Up-front distributor and partner payments are classified on the Consolidated Balance Sheets as other non-current assets and recorded as a cost of services in the Consolidated Statements of Income.

**IMPAIRMENT OF LONG-LIVED ASSETS:** The Company reviews long-lived assets, such as property and equipment and intangibles subject to amortization, including contract acquisition costs and certain computer software, for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to estimated undiscounted future cash flows expected to be generated by the asset. If upon a triggering event the Company determines that the carrying amount of an asset exceeds its estimated undiscounted future cash flows, an impairment charge is recognized by the amount by which the carrying amount of the asset exceeds the fair value of the asset. Assets to be disposed of would be separately presented in the consolidated balance sheet and reported at the lower of the carrying amount or fair value less costs to sell, and would no longer be depreciated. The assets and liabilities of a disposed group classified as held for sale would be presented separately in the appropriate asset and liability sections of the consolidated balance sheet.

**TRANSACTION PROCESSING PROVISIONS:** The Company has recorded an accrual for contract contingencies (performance penalties) and processing errors. A significant number of the Company's contracts with large clients contain service level agreements which can result in TSYS incurring performance penalties if contractually required service levels are not met. When providing for these accruals, the Company takes into consideration such factors as the prior history of performance penalties and processing errors incurred, actual contractual penalty charge rates in the Company's contracts, progress towards milestones and known processing errors. As of December 31, 2017 and 2016, the Company had transaction processing provisions of \$2.2 million and \$2.9 million, respectively. These accruals are included in other current liabilities in the accompanying Consolidated Balance Sheets. Increases and decreases in transaction processing provisions are charged to cost of services in the Company's Consolidated Statements of Income, and payments or credits for performance penalties and processing errors are charged against the accrual.

**PROVISION FOR CARDHOLDER LOSSES:** The Company is exposed to losses due to cardholder fraud, payment defaults and other forms of cardholder activity as well as losses due to non-performance of third parties who receive cardholder funds for transmittal to the issuing banks (banks that issue MasterCard International or Visa USA, Inc. branded cards to customers). The Company establishes a reserve for the losses it estimates will arise from processing customer transactions, debit card overdrafts, chargebacks for unauthorized card use and merchant-related chargebacks due to non-delivery of goods and services. These reserves are established based upon historical loss and recovery rates and cardholder activity for which specific losses can be identified. The provision for cardholder losses was approximately \$9.5 million and \$10.5 million as of December 31, 2017 and 2016, respectively. The charges to provisions for cardholder losses are included in cost of services in the Consolidated Statements of Income and other current liabilities in the Consolidated Balance Sheets. The Company regularly updates its reserve estimate as new facts become known and events occur that may impact the settlement or recovery of losses.

**PROVISION FOR MERCHANT LOSSES:** The Company has potential liability for losses resulting from disputes between a cardholder and a merchant that arise as a result of, among other things, the cardholder's dissatisfaction with merchandise quality or merchant services. Such disputes may not be resolved in the merchant's favor. In these cases, the transaction is "charged back" to the merchant, which means the purchase price is refunded to the customer by the card-issuing bank and charged to the merchant. If the merchant is unable to fund the refund, TSYS must do so. TSYS also bears the risk of reject losses arising from the fact that TSYS collects fees from its merchants after the monthly billing period. If the merchant has

gone out of business during such period, TSYS may be unable to collect such fees. TSYS maintains cash deposits or requires the pledge of a letter of credit from certain merchants, generally those with higher average transaction size where the card is not present when the charge is made or the product or service is delivered after the charge is made, in order to offset potential contingent liabilities such as chargebacks and reject losses that would arise if the merchant went out of business. Most chargeback and reject losses are charged to cost of services as they are incurred. However, the Company also maintains a provision against losses, including major fraud losses, which are both less predictable and involve larger amounts. The loss provision was established using historical loss rates, applied to recent bankcard processing volume. As of December 31, 2017 and 2016, the Company had a merchant loss provision in the amount of \$4.3 million and \$2.0 million, respectively.

**LEASES:** The Company is obligated under noncancelable leases for computer equipment, software and facilities. As these leases expire, they will be evaluated and renewed or replaced by similar leases based on need. For purposes of applying the accounting and reporting standards, leases are classified from the standpoint of the lessee as capital or operating leases.

Rental payments on operating leases are charged to expense over the lease term. If rental payments are not made on a straight-line basis, rental expense nevertheless shall be recognized on a straight-line basis unless another systematic and rational basis is more representative of the time pattern in which use benefit is derived from the leased property, in which case that basis shall be used.

Certain of the Company's operating leases are for office space. The Company will make various alterations (leasehold improvements) to the office space and capitalize these costs as part of property and equipment. Leasehold improvements are amortized on a straight-line basis over the useful life of the improvement or the term of the lease, whichever is shorter.

**REDEEMABLE NONCONTROLLING INTEREST:** In connection with the acquisition of Central Payment Co., LLC (CPAY), the Company is party to call and put arrangements with respect to the membership units that represent the remaining noncontrolling interest of CPAY. The call arrangement is exercisable by TSYS and the put arrangement is exercisable by the seller. The put arrangement is outside the control of the Company by requiring the Company to purchase the seller's entire equity interest in CPAY at a put price at fair value. The put arrangement is recorded on the consolidated balance sheet and is classified as redeemable noncontrolling interest outside of permanent equity.

**TREASURY STOCK:** The Company uses the cost method when it purchases its own common stock as treasury shares or issues treasury stock upon option exercises and displays treasury stock as a reduction of shareholders' equity.

**FAIR VALUES OF FINANCIAL INSTRUMENTS:** The Company uses financial instruments in the normal course of its business. The carrying values of cash equivalents, accounts receivable, accounts payable, accrued salaries and employee benefits, and other current liabilities approximate their fair value due to the short-term maturities of these assets and liabilities. The fair value of the Company's long-term debt and obligations under capital leases is not significantly different from its carrying value.

Investments in equity method investments are accounted for using the equity method of accounting and pertain to privately held companies. The Company believes the fair values of its investments in equity method investments exceed their respective carrying values.

**FOREIGN CURRENCY TRANSLATION:** The Company maintains several different foreign operations whose functional currency is their local currency. Foreign currency financial statements of the Company's Mexican and Chinese equity investments, the Company's wholly owned subsidiaries and the Company's majority owned subsidiaries, as well as the Company's division and branches in the United Kingdom and China, are translated into U.S. dollars at current exchange rates, except for revenues, costs and expenses, and net income which are translated at the average exchange rates for each reporting period. Net gains or losses resulting from the currency translation of assets and liabilities of the Company's foreign operations, net of tax when applicable, are accumulated in a separate section of shareholders' equity titled accumulated other comprehensive income (loss). Gains and losses on transactions denominated in currencies other than the functional currencies are included in determining net income for the period in which exchange rates change.

**REVENUE RECOGNITION:** Revenue is recognized when it is realized or realizable and earned, which is deemed to occur when all of the following criteria are met: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred or services have been performed; (3) the seller's price to the buyer is fixed or determinable; and (4) collectability is reasonably assured. The Company accrues for rights of refund, processing errors or penalties, or other related allowances based on historical experience.

The Company's Issuer Solutions revenues are derived from long-term processing contracts with financial and nonfinancial institutions and are generally recognized as the services are performed. Payment processing services revenues are generated primarily from charges based on:

- The number of accounts on file;
- Transactions and authorizations processed;
- Statements mailed; and
- Cards embossed and mailed and other processing services for cardholder accounts on file.

Most of these contracts have prescribed annual revenue minimums, penalties for early termination, and service level agreements which may impact contractual fees if certain service levels are not achieved.

Revenue is recognized as the services are performed, primarily on a per unit basis. Processing contracts generally range from three to ten years in length. When providing payment processing services, the Company frequently enters into customer arrangements to provide multiple services that may also include conversion or implementation services, business process outsourcing services such as call center services, web-based services, and other payment processing-related services. Revenue for these services is generally recognized as they are performed on a per unit basis each month or ratably over the term of the contract.

The Company's Merchant Solutions revenues are partially derived from relationships with thousands of individual merchants whose contracts range from thirty days to five years. Additionally, part of the revenues are derived from long-term processing contracts with large financial institutions, other merchant acquirers and merchant organizations which generally range from three to eight years and provide for penalties for early termination. Merchant services revenue is generated primarily from processing all payment forms including credit, debit and electronic benefits transfer for merchants of all sizes across a wide array of retail market segments.

The products and services offered include:

- Authorization and capture of electronic transactions;
- Clearing and settlement of electronic transactions;
- Information reporting services related to electronic transactions;
- Merchant billing services; and
- Point-of-sale terminal services.

Revenue is recognized for merchant services as those services are performed, primarily measured on a per unit basis. When providing merchant processing services, the Company frequently enters into customer arrangements to provide multiple services that may also include conversion or implementation services, business process outsourcing services such as call center services, terminal services, and other merchant processing-related services. Revenue for these services is generally recognized as they are performed on a per unit basis each month or ratably over the term of the contract. Revenues on point-of-sale terminal equipment are recognized upon the transfer of ownership and shipment of product.

With the acquisition of TransFirst Holdings Corp. (TransFirst) on April 1, 2016, TSYS included TransFirst's results as part of the Merchant Solutions segment. TransFirst's revenues are reported gross, which includes amounts paid for interchange and assessments, as TransFirst is the principal in the contractual relationship with its customers. Expenses covering interchange and payment network fees are included in TransFirst's cost of services and are directly attributable to processing fee revenues and are recognized in the same period as the related revenue.

The Company's Netspend revenues principally consist of a portion of the service fees collected from cardholders and interchange revenues received by the issuing banks in connection with the programs Netspend manages.

Cardholders are charged fees in connection with Netspend's products and services as follows:

- Transactions - Cardholders are typically charged a fee for each Personal Identification Number (PIN) and signature-based purchase transaction made using their GPR cards, unless the cardholder is on a monthly or annual service plan, in which case the cardholder is instead charged a monthly or annual subscription fee, as applicable. Cardholders are also charged fees for Automated Teller Machines (ATM) withdrawals and other transactions conducted at ATMs.



- Customer Service and Maintenance - Cardholders are typically charged fees for balance inquiries made through Netspend's call centers. Cardholders are also charged a monthly maintenance fee after a specified period of inactivity.
- Additional Products and Services - Cardholders are charged fees associated with additional products and services offered in connection with certain GPR cards, including the use of overdraft features, a variety of bill payment options, custom card designs and card-to-card transfers of funds initiated through the call centers.
- Other - Cardholders are charged fees in connection with the acquisition and reloading of the GPR cards at retailers and the Company receives a portion of these amounts in some cases.

Revenue resulting from the service fees charged to the cardholders described above is recognized when the fees are charged because the earnings process is substantially complete, except for revenue resulting from the initial activation of cards and annual subscription fees. Revenue resulting from the initial activation of cards is recognized ratably, net of commissions paid to distributors, over the average account life, which is approximately six months for GPR cards. Revenue resulting from annual subscription fees is recognized ratably over the annual period to which the fees relate.

Revenues also include fees charged in connection with program management and processing services the Company provides for private-label programs. Revenue resulting from these fees is recognized when the Company has fulfilled its obligations under the underlying service agreements.

Netspend derives revenue from a portion of the interchange fees remitted by merchants when cardholders make purchases using their GPR cards. Subject to applicable law, interchange fees are fixed by the card associations and network organizations (Networks). Interchange revenue is recognized net of sponsorship, licensing and processing fees charged by the Networks for services they provide in processing purchase transactions routed through them. Interchange revenue is recognized during the period that the purchase transactions occur. Also included in interchange revenue are fees earned from branding agreements with the Networks.

When a sale involves multiple deliverables, revenue recognition is affected by the determination of the number of deliverables in an arrangement, whether those deliverables may be separated into multiple units of accounting, and the standalone selling price of each unit of accounting which affects the amount of revenue allocated to each unit. Pursuant to Accounting Standards Codification (ASC) 605, the Company uses vendor-specific objective evidence (VSOE) of the standalone selling price of its services when it exists to determine the amount of revenue to allocate to each unit of accounting. The Company establishes VSOE using the price charged when the same service is sold separately (on a standalone basis). In most situations, the Company does not have sufficient VSOE. In these situations, TSYS considers whether sufficient third party evidence (TPE) of standalone selling price exists for the Company's services. However, the Company typically is not able to determine TPE and has not used this measure of selling price due to the unique and proprietary nature of some of its services and the inability to reliably verify relevant standalone third party prices. When there is insufficient evidence of VSOE and TPE, the Company has made its best estimate of the standalone selling price (ESP) of that service for purposes of allocating revenue to each unit of accounting. When determining ESP, TSYS uses limited standalone sales data that do not meet the Company's criteria to establish VSOE, management pricing strategies, residual selling price data when VSOE exists for a group of elements, the cost of providing the services and the related margin objectives. Consideration is also given to geographies in which the services are sold or delivered, customer classifications, and market conditions including competitor pricing strategies and benchmarking studies. Revenue is recognized when the revenue recognition criteria for each unit of accounting have been met.

There were no material changes or impact to revenue for current contractual arrangements during the years ended December 31, 2017, 2016 and 2015 due to any changes in the determination of the number of deliverables in an arrangement, units of accounting, or estimates of VSOE or ESP.

In many situations, the Company enters into arrangements with customers to provide conversion or implementation services in addition to processing services where the conversion or implementation services do not have standalone value. For these arrangements, conversion or implementation services that do not have standalone value, are recognized over the expected customer relationship (contract term) as the related processing services are performed.

The Company's other services generally have standalone value and constitute separate units of accounting for revenue recognition purposes. Customer arrangements entered into prior to 2011 (prior to the adoption of Accounting Standards Update (ASU) 2009-13 "*Multiple-Deliverable Revenue Arrangements*," an update to ASC Topic 605 "*Revenue Recognition*," and formerly known as EITF 08-1, "*Revenue Arrangements with Multiple Deliverables*") often included services for which sufficient objective and reliable evidence of fair value did not exist. In these situations, the deliverables were combined and recognized as a single unit of accounting based on the proportional performance for the combined unit. For pre-2011



arrangements that have not expired, have not been materially modified or amended, or terminated, the Company continues to recognize revenue in accordance with these policies in the accompanying consolidated financial statements. Beginning in 2011, services in new or materially modified arrangements of this nature were divided into separate units of accounting and revenue is now allocated to each unit of accounting based on the relative selling price method as disclosed above. As the services in the pre-2011 arrangements are generally delivered over the same term with consistent patterns of performance, there is no material difference in the timing or pattern of revenue recognition for each group of arrangements (pre-2011 arrangements and those new or materially modified thereafter).

The Company's multiple element arrangements may include one or more elements that are subject to other topics including software revenue recognition and leasing guidance. The consideration for these multiple element arrangements is allocated to each group of deliverables – those subject to ASC 605-25 and those subject to other topics based on the revised guidance in ASU 2009-13. Arrangement revenue for each group of deliverables is then further separated, allocated, and recognized based on applicable guidance.

In regards to taxes assessed by a governmental authority imposed directly on a revenue producing transaction, the Company reports its revenues on a net basis.

**REIMBURSABLE ITEMS:** Reimbursable items consist of out-of-pocket expenses which are reimbursed by the Company's clients. These expenses consist primarily of postage, access fees and third party software. Reimbursable items are recorded on a gross basis in total revenues and cost of services.

**INTERCHANGE AND PAYMENT NETWORK FEES:** Interchange and payment network fees are charged by the card associations or payment networks. Depending upon the transaction type, the fees are a percentage of the transaction's dollar value, a fixed amount, or a combination of the two methods. Certain interchange and payment network fees are recorded in both total revenues and cost of services.

**SHARE-BASED COMPENSATION:** GAAP establishes standards for the accounting for transactions in which an entity exchanges its equity instruments for goods or services. It also addresses transactions in which an entity incurs liabilities in exchange for goods or services that are based on the fair value of the entity's equity instruments or that may be settled by the issuance of those equity instruments. A public entity must measure the cost of employee services received in exchange for an award of equity instruments based on the grant-date fair value of the award (with limited exceptions). That cost will be recognized over the period during which an employee is required to provide service in exchange for the award.

The Company estimates forfeitures when recognizing compensation cost. The estimate of forfeitures will be adjusted by the Company as actual forfeitures differ from its estimates, resulting in compensation cost only for those awards that actually vest. The effect of the change in estimated forfeitures is recognized as compensation costs in the period the change in estimate occurred. In estimating its forfeiture rate, the Company stratified its data based upon historical experience to determine separate forfeiture rates for the different award grants. The Company currently estimates a forfeiture rate for existing stock option grants to TSYS non-executive employees, and other TSYS share-based awards. Currently, TSYS estimates a forfeiture rate in the range of 0% for executive level employees and up to 8% for other employees.

The Company has issued its vested awards to directors and nonvested awards to certain employees. The market value of the common stock at the date of issuance is recognized as compensation expense immediately for vested awards and over the vesting period of the nonvested awards. For nonvested award grants that have pro rata vesting, the Company recognizes compensation expense using the straight-line method over the vesting period of the award.

**ADVERTISING:** Advertising costs are expensed as incurred or the first time the advertising takes place except for direct-response advertising and television advertising production costs. Direct-response advertising consists of commission paid to affiliate marketers for the new funded customer accounts generated by them. Direct-response advertising costs are capitalized and amortized over the average life of the new accounts, which is approximately one year. Television advertising production costs consist of the costs of developing and filming television ads. Television advertising production costs are capitalized when the production services are received and expensed in the period when the advertising first takes place. Advertising expense for 2017, 2016 and 2015 was \$13.2 million, \$11.5 million and \$9.6 million, respectively.

**NONCONTROLLING INTEREST:** Noncontrolling interest in earnings of subsidiaries represents the minority shareholders' share of the net income or loss of CPAY. Refer to Note 22 for more information on acquisitions.

**EARNINGS PER SHARE:** Basic EPS is calculated by dividing net income by the weighted average number of common shares outstanding during the period. Diluted EPS is calculated to reflect the potential dilution that would occur if stock options or other contracts to issue common stock were exercised. Diluted EPS is calculated by dividing net income by weighted

average common and common equivalent shares outstanding. Common equivalent shares are calculated using the treasury stock method.

Unvested share-based payment awards that contain nonforfeitable rights to dividends or dividend equivalents are "participating securities" as defined by GAAP, and therefore should be included in EPS using the two-class method.

The two-class method is an earnings allocation method for computing EPS when an entity's capital structure includes two or more classes of common stock or common stock and participating securities. It determines EPS based on dividends declared on common stock and participating securities and participation rights of participating securities in any undistributed earnings.

**RECLASSIFICATIONS:** The Company had investments in private equity funds as of December 31, 2016 with a value of \$24.5 million. During the year ended December 31, 2017 and in prior periods, this investment was reclassified from other assets to equity investments on the consolidated balance sheets. The income statement impact was to reclassify an immaterial amount of gains and losses from nonoperating expenses to equity in income of equity investments.

## Recently Adopted Accounting Pronouncements

The Company adopted the following Accounting Standards Updates (ASUs) on January 1, 2017:

ASU 2017-04 "*Intangibles – Goodwill and Other (Topic 350), Simplifying the Test for Goodwill Impairment*," which modifies the concept of impairment from the condition that exists when the carrying amount of goodwill exceeds its implied fair value to the condition that exists when the carrying amount of a reporting unit exceeds its fair value. An entity no longer will determine goodwill impairment by calculating the implied fair value of goodwill by assigning the fair value of a reporting unit to all of its assets and liabilities as if that reporting unit had been acquired in a business combination. An entity should apply the amendments in this Update on a prospective basis. The ASU is effective for the Company on January 1, 2020. Early adoption is permitted by all entities for interim or annual goodwill impairment test performed on testing dates after January 1, 2017. The Company early adopted this ASU in May 2017 in conjunction with its annual goodwill impairment testing. The adoption of this ASU did not have a material impact on the Company's financial position, results of operations or cash flows.

ASU 2016-19 "*Technical Corrections*," which required changes to clarify, correct errors or make minor improvements to the ASC. Most of the amendments in this Update do not require transition guidance and were effective upon issuance of this Update. Six amendments in this Update clarify guidance or correct references in the ASC that could potentially result in changes in current practice because of either misapplication or misunderstanding of current guidance. Early adoption is permitted for the amendments that require transition guidance. The Company was impacted by the amendment to *Subtopic 350-40, Intangibles - Goodwill and Other - Internal-Use Software*, which adds a reference to guidance to use when accounting for internal-use software licensed from third parties that is within the scope of Subtopic 350-40. The transition guidance for that amendment is the same as the transition guidance in ASU 2015-05, "*Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 350-40): Customer's Accounting for Fees Paid in a Cloud Computing Arrangement*," to which the amendment relates and was adopted on a prospective basis. The adoption of this ASU resulted in the Company's recording of acquired software of \$13.9 million as an intangible asset at present value rather than treating the software as a lease arrangement. During the year ended December 31, 2017, \$5.3 million was classified as amortization expense instead of rental expense.

ASU 2016-09 "*Improvements to Employee Share-Based Payment Accounting*," which simplifies several aspects of the accounting for employee share-based payment transactions, including the accounting for income taxes, forfeitures and statutory tax withholding requirements, as well as classification in the consolidated statement of cash flows. The adoption of this standard results in the excess tax benefits and deficiencies associated with share-based payments being recorded on the income statement at the time they are deducted on the income tax return instead of being recorded in additional paid-in capital. The excess tax benefits are recorded along with other income tax cash flows as an operating activity in the statement of cash flows. The Company recorded excess tax benefits of \$14.3 million in its provision for income taxes rather than as an increase to additional paid-in capital for the year ended December 31, 2017 on a prospective basis. Therefore, the prior period presented has not been adjusted. The Company excluded the excess tax benefits from the assumed proceeds available to repurchase shares in the computation of diluted earnings per share using the treasury stock method, which did not have a material impact on its diluted earnings per share for the year ended December 31, 2017. The Company elected to apply the presentation requirement for cash flows related to excess tax benefits prospectively, and thus, the prior period presented has not been adjusted. This adoption resulted in an increase in net cash provided by operating activities and a decrease in net cash from financing activities of \$14.3 million for the year ended December 31, 2017.

In March 2016, the FASB issued ASU 2016-07 "*Simplifying the Transition to the Equity Method of Accounting*," which simplifies the equity method of accounting by eliminating the requirement to retrospectively apply the equity method to an investment that subsequently qualifies for such accounting as a result of an increase in the level of ownership interest or degree of influence. The ASU further requires that unrealized holding gains or losses in accumulated other comprehensive

income related to an available-for-sale security that becomes eligible for the equity method be recognized in earnings as of the date on which the investment qualifies for the equity method. The guidance in the ASU is effective for fiscal years and interim periods within those years beginning after December 15, 2016. Entities are required to apply the guidance prospectively to increases in the level of ownership interest or degree of influence occurring after the ASU's effective date. The adoption of this ASU did not have a material impact on the Company's financial position, results of operations or cash flows.

## Recent Accounting Pronouncements

In February 2018, the FASB issued ASU 2018-02 "Income Statement – Reporting Comprehensive Income (Topic 220) *Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income.*" ASU 2018-02 allows a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the Tax Cuts and Jobs Act. Consequently, the amendments in this ASU eliminate the stranded tax effects resulting from the Tax Cuts and Jobs Act and will improve the usefulness of information reported to financial statement users. The amendments in this ASU are effective for all entities for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. Early adoption of the amendments in this ASU is permitted. The amendments in this ASU should be applied either in the period of adoption or retrospectively to each period (or periods) in which the effect of the change in the U.S. federal corporate income tax rate in the Tax Cuts and Jobs Act is recognized. The Company is evaluating the effect of ASU 2018-02 on its consolidated financial statements.

In September 2017, the FASB issued ASU 2017-13 "*Revenue Recognition (Topic 605), Revenues from Customers (Topic 606), Leases (Topic 840) and Leases (Topic 842)*", which made amendments to SEC paragraphs pursuant to the Staff Announcement at the July 20, 2017 Emerging Issues Task Force (EITF) Meeting and rescission of prior SEC Staff Announcements and Observer comments. This guidance, which is effective immediately, generally relates to the adoption of ASC 606 and 842. The Company does not expect the adoption of this ASU to have a material impact on the Company's financial position, results of operations or cash flows.

In May 2017, the FASB issued ASU 2017-09 "*Compensation - Stock Compensation (Topic 718), Scope of Modification Accounting,*" to provide guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting in Topic 718. An entity should account for the effects of a modification unless all the following are met:

1. The fair value (or calculated value or intrinsic value, if such an alternative measurement method is used) of the modified award is the same as the fair value (or calculated value or intrinsic value, if such an alternative measurement method is used) of the original award immediately before the original award is modified. If the modification does not affect any of the inputs to the valuation technique that the entity uses to value the award, the entity is not required to estimate the value immediately before and after the modification.
2. The vesting conditions of the modified award are the same as the vesting conditions of the original award immediately before the original award is modified.
3. The classification of the modified award as an equity instrument or a liability instrument is the same as the classification of the original award immediately before the original award is modified.

The ASU is effective for the Company on January 1, 2018. Early adoption is permitted, including adoption in any interim period, for (a) public business entities for reporting periods for which financial statements have not yet been issued and (b) all other entities for reporting periods for which financial statements have not yet been made available for issuance. The Company does not expect the adoption of this ASU to have a material impact on the Company's financial position, results of operations or cash flows.

In January 2017, the FASB issued ASU 2017-01 "*Business Combinations (Topic 805), Clarifying the Definition of a Business,*" which provides a more robust framework to use in determining when a set of assets and activities is a business. The framework assists entities in evaluating whether both an input and a substantive process are present. The framework includes two sets of criteria to consider that depend on whether a set has outputs. Although outputs are not required for a set to be a business, outputs generally are a key element of a business; therefore, the FASB has developed more stringent criteria for sets without outputs. The ASU is effective for the Company on January 1, 2018. Early application of the amendments in this Update is allowed under certain circumstances. The Company does not expect the adoption of this ASU to have a material impact on the Company's financial position, results of operations or cash flows.

In November 2016, the FASB issued ASU 2016-18 "*Statement of Cash Flows (Topic 230): Restricted Cash,*" which requires that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. The ASU is effective for the Company on January 1,

2018. The Company does not expect the adoption of this ASU to have a material impact on the Company's financial position, results of operations or cash flows. The Company had restricted cash of \$1.0 million, \$ 0.5 million, and \$0.2 million as of December 31, 2017, 2016 and 2017, respectively.

In October 2016, the FASB issued ASU 2016-16 "*Income Taxes (Topic 740): Intra-Equity Transfers of Assets Other Than Inventory*," which requires that an entity should recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs and eliminates the exception for an intra-entity transfer of an asset other than inventory. The ASU is effective for the Company on January 1, 2018. The Company does not expect the adoption of this ASU to have a material impact on the Company's financial position, results of operations or cash flows.

In August 2016, the FASB issued ASU 2016-15 "*Statement of Cash Flow (Topic 230): Classification of Certain Receipts and Cash Payments*," which clarifies how entities should classify certain cash receipts and cash payments on the statement of cash flows. The guidance also clarifies how the predominance principle should be applied when cash receipts and cash payments have aspects of more than one class of cash flow. The ASU is effective for the Company on January 1, 2018. Early adoption is permitted by all entities. The Company does not expect the adoption of this ASU to have a material impact on the Company's financial position, results of operations or cash flows.

In June 2016, the FASB issued ASU 2016-13, "*Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*." The amendments in this update change how companies measure and recognize credit impairment for many financial assets. The new expected credit loss model will require companies to immediately recognize an estimate of credit losses expected to occur over the remaining life of the financial assets (including trade receivables) that are in the scope of the update. The update also made amendments to the current impairment model for held-to-maturity and available-for-sale debt securities and certain guarantees. The ASU is effective for the Company on January 1, 2020. Early adoption is permitted for periods beginning on or after January 1, 2019. The Company is evaluating the effect of ASU 2016-13 on its consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02 "*Leases (Topic 842)*," which introduces a lessee model that brings most leases on the balance sheet and aligns many of the underlying principles of the new lessor model with those in the FASB's new revenue recognition standard. The ASU also addresses other concerns related to the current leases model. The new guidance will be effective for fiscal years and interim periods within those years beginning after December 15, 2018. Early adoption will be permitted for all entities. The Company plans to adopt ASU 2016-02 on January 1, 2019. While the Company is continuing to evaluate the effects of this ASU, the Company expects to record material right of use assets and lease liabilities on its consolidated balance sheet upon adoption.

In January 2016, the FASB issued ASU 2016-01 "*Recognition and Measurement of Financial Assets and Financial Liabilities*," which amends the guidance in U.S. GAAP on the classification and measurement of financial instruments. The ASU significantly revises an entity's accounting related to (1) the classification and measurement of investments in equity securities and (2) the presentation of certain fair value changes for financial liabilities measured at fair value. The ASU also amends certain disclosure requirements associated with the fair value of financial instruments. The new standard is effective for fiscal years and interim periods within those years beginning after December 15, 2017. The Company does not expect the adoption of this ASU to have a material impact on the Company's financial position, results of operations or cash flows.

## **Recent Revenue Recognition Accounting Pronouncements**

In May 2014, the FASB issued ASU 2014-09 "*Revenue from Contracts with Customers (Topic 606)*," which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The ASU will replace most existing revenue recognition guidance in U.S. GAAP when it becomes effective. The FASB has issued several additional ASUs (included below) since this time that add additional clarification to certain issues existing after the original ASU was released. All of the new standards are effective for the Company on January 1, 2018. The standards permit the use of either the full retrospective or modified retrospective transition method.

In March 2016, the FASB issued ASU 2016-08 "*Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net)*," which improves the operability and understandability of the implementation guidance on principal versus agent considerations by providing indicators as to which party controls the good or service provided to a customer (the principal).

In April 2016, the FASB issued ASU 2016-10 "*Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing*," which clarifies two aspects of Topic 606: identifying performance obligations and the licensing implementation guidance, while retaining the related principles for those areas.

In May 2016, the FASB issued ASU 2016-12 "*Revenue from Contracts with Customers (Topic 606): Narrow Scope Improvements and Practical Expedients*," which affects only the following narrow aspects of Topic 606: Assessing the



Collectability Criterion; Presentation of Sales and Other Taxes Collected from Customers; Noncash Consideration; Contract Modification at Transition; Completed Contracts at Transition; and Technical Correction.

In December 2016, the FASB issued ASU 2016-20 “*Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers*,” which affects only the following narrow aspects of *Topic 606: Disclosure of Remaining Performance Obligations* as it relates to entities such as processors which may not be required to estimate revenue under ASU 2014-09 due to direct allocation of variable consideration; *Disclosure of Prior - Period Performance Obligations*; *Loan Guarantee Fees*; *Contract Costs – Impairment Testing*; *Contract Costs - Interaction of Impairment Testing with Guidance in Other Topics*; *Provisions for Losses on Construction-Type and Production Type Contracts*; Contracts within the scope of Topic 944 (Insurance) are excluded from the scope of Topic 606; *Contract Modifications*; *Contract Asset versus Receivable*; *Refund Liability*; *Advertising Costs*; *Fixed - Odds Wagering Contracts in the Casino Industry*.

TSYS will adopt the new revenue standard, effective January 1, 2018, using the modified retrospective transition method. Under this method, the Company could elect to apply the cumulative effect method to either all contracts as of the date of initial application or only to contracts that are not complete as of that date. TSYS elected to apply the modified retrospective method to contracts that are not complete as of January 1, 2018. The cumulative impact of adopting the standard as of January 1, 2018 is expected to be an increase in opening retained earnings between \$1.0 million and \$4.0 million. The most significant impact of adopting ASC 606 in 2018 is primarily the result of gross versus net presentation of interchange and payment network fees. In 2018, these fees collected on behalf of the payment networks and card issuers will be presented "net" of the amounts paid to them, as opposed to the "gross" presentation for certain of these fees in 2017. As a result of this change, the Company's total revenues for the year ending December 31, 2018 are expected to be lower by approximately \$1.575 billion to \$1.6 billion. The Company's diluted EPS for the year ending December 31, 2018 is expected to be lower by approximately \$0.03 to \$0.04 per share due primarily to changes in revenue recognition for certain contracts in the Issuer Solutions segment. The quantitative ranges provided represent management's best estimate of the effect of adopting ASC 606 at the time of preparation of this Annual Report on Form 10-K. The actual impact of adopting ASC 606 is subject to change from this estimate, pending the completion of the Company's assessment in the first quarter of 2018. The adoption of this guidance requires the implementation of new accounting processes, procedures and internal controls over financial reporting surrounding the adoption of the standard, periodic reporting and expanded disclosures. Additionally, the Company implemented a new revenue tool solution to facilitate compliance with the standard.

In preparation for adoption, the Company reviewed the requirements of the new revenue standard, and amendments described above, while following activities of the FASB and the American Institute of Certified Public Accountants (AICPA) for certain interpretive guidance applicable to Information Technology (IT) outsourcers and payment processors. The Company evaluated customer contracts under the new standard for each type of significant revenue stream (and related costs) to evaluate differences from current accounting, as described further below.

#### *Issuer Solutions*

Issuer Solutions revenues typically include a performance obligation to provide processing services to financial and non-financial institutions. The Company has determined that these processing services represent a stand-ready series of distinct daily services that are substantially the same, with the same pattern of transfer to the customer. In many cases, Issuer Solutions arrangements may include additional performance obligations relating to loyalty redemption services and other professional services. Similar to processing services, the Company has determined that loyalty redemption services represent a stand-ready series of distinct daily services that are substantially the same, with the same pattern of transfer to the customer. Professional services represent performance obligations that are satisfied over time.

The Company has determined that the vast majority of performance obligations to provide processing services and loyalty redemption services meet the allocation of variable consideration exception criteria (“direct allocation”) in that (a) the terms of a variable payment relate specifically to the entity's efforts to satisfy the performance obligation or transfer the distinct service and (b) allocating the variable amount of consideration entirely to the performance obligation or the distinct good or service is consistent with the allocation objective when considering all of the performance obligations and payment terms in the contract. As a result, for those performance obligations qualifying for direct allocation, the Company will allocate and recognize variable consideration in the period it has the contractual right to invoice the customer. In certain instances when a performance obligation does not meet the criteria for direct allocation, the Company will recognize revenue either on a straight-line basis or a blended rate method (i.e., the estimated per transaction fee based on estimated total contract revenue and volumes, multiplied by the actual monthly transaction volume) over the term of the contract. The Company determined that straight-line or blended rate are the most appropriate methods of measuring progress toward completion for performance obligations that do not meet the criteria for direct allocation. For professional services, the Company will recognize revenue based on the labor hours incurred for time and materials projects or on a straight-line basis for fixed fee projects.



For Issuer Solutions contracts that contain multiple performance obligations, the transaction price is allocated to each performance obligation based on a relative standalone selling price basis unless the transaction price is variable and meets the criteria to be allocated entirely to a performance obligation or to a distinct service that forms part of a single performance obligation. The Company determines standalone selling price based on the price at which the performance obligation is sold separately. If the standalone selling price is not observable through past transactions, the Company estimates the standalone selling price taking into account available information such as market conditions and internally approved pricing guidelines related to the performance obligations.

The Issuer Solutions segment also enters into licensing arrangements with customers. Under these arrangements, the Company provides the customer with a term license (functional IP), implementation services and unspecified upgrades and enhancements. The Company has determined that these promised goods and services represent one combined performance obligation since the individual promised goods or services are not distinct in the context of the contract. The Company will recognize revenue over the contract period, on a straight-line basis, for this performance obligation. For separate performance obligations relating to professional services, revenue will be recognized on a percentage of completion basis.

#### *Merchant Solutions*

Merchant Solutions revenues typically include one performance obligation to provide processing services to individual merchants, large financial institutions, other merchant acquirers and merchant organizations. The Company has determined that merchant processing services represent a stand-ready series of distinct daily services that are substantially the same, with the same pattern of transfer to the customer. Merchant Solutions arrangements also include other promised goods or services (such as point of sale terminals and merchant statement services) that are immaterial in the context of the contract. As a result, the Company has determined that Merchant Solutions arrangements represent one performance obligation. The Company has determined that the performance obligations to provide merchant processing services meet the allocation of variable consideration exception criteria (“direct allocation”) in that (a) the terms of a variable payment relate specifically to the entity’s efforts to satisfy the performance obligation or transfer the distinct service and (b) allocating the variable amount of consideration entirely to the performance obligation or the distinct good or service is consistent with the allocation objective when considering all of the performance obligations and payment terms in the contract. As a result, the Company will allocate and recognize variable consideration in the period it has the contractual right to invoice the customer.

#### *Gross vs. net presentation considerations for interchange and payment network fees*

Interchange and payment network fees are charged by the card associations or payment networks. Depending upon the transaction type, the fees are a percentage of the transaction’s dollar value, a fixed amount, or a combination of the two methods. Interchange and payment network fees primarily relate to the Company’s Issuer Solutions and Merchant Solutions segments. With respect to interchange and payment network fees, the Company evaluated whether it is the principal or the agent. With the adoption of ASC 606, the Company determined that interchange and payment network fees are not provided in return or exchange for services that the Company controls or acts as the principal, and, therefore, are not part of the consideration paid for its services. These fees collected on behalf of the payment networks and card issuers will be presented “net” of the amounts paid to them. Accordingly, the Company is acting as an agent and presents the fees collected from merchants on behalf of the payment networks and card issuers net of the amounts paid to them. In reaching this determination, the Company considered a number of factors including indicators of control such as the party primarily responsible and the party who has discretion in establishing prices.

#### *Netspend*

Netspend revenues include one performance obligation to provide account access and facilitate purchase transactions. The Company has determined that Netspend services represent a stand-ready series of distinct daily services that are substantially the same, with the same pattern of transfer to the customer. Further, the Company has determined that the performance obligation to provide account access and facilitate purchase transactions meets the criteria for the “as invoiced” practical expedient in that the Company has a right to consideration from a customer in an amount that corresponds directly with the value to the customer of the Company’s performance completed to date. As a result, the Company will recognize revenue in the amount to which the Company has a right to invoice.

#### *Costs to obtain or fulfill a contract*

The Company will capitalize the incremental costs of obtaining a contract with a customer if the Company expects to recover those costs. The incremental costs of obtaining a contract are those that the Company incurs to obtain a contract with a customer that it would not have incurred if the contract had not been obtained (for example, a sales commission).

The Company capitalizes the costs incurred to fulfill a contract only if those costs meet all of the following criteria:

- a. The costs relate directly to a contract or to an anticipated contract that the Company can specifically identify.
- b. The costs generate or enhance resources of the Company that will be used in satisfying (or in continuing to satisfy) performance obligations in the future.
- c. The costs are expected to be recovered.

The Company will capitalize contract acquisition and fulfillment costs related to signing or renewing long-term contracts and costs related to cash payments for rights to provide processing services.

Contract acquisition and fulfillment cost will be amortized using the straight-line method over the expected period of benefit (ranging from 20 months to seven years or the longer of the contract term) beginning when the client's cardholder accounts are converted or activated and producing revenues. The amortization of contract acquisition costs associated with cash payments for client incentives will be included as a reduction of revenues in the Company's Consolidated Statements of Income. The amortization of contract fulfillment costs associated with conversion activity will be recorded as cost of services in the Company's Consolidated Statements of Income. The amortization of contract acquisition costs associated with sales commissions that qualify for capitalization will be recorded as selling, general and administrative expense in the Company's Consolidated Statements of Income. Costs to obtain or fulfill a contract will be classified as contract cost assets in the Company's Consolidated Balance Sheets.

## **Note 2 Fair Value Measurements**

GAAP requires disclosure about how fair value is determined for assets and liabilities and establishes a hierarchy for which these assets and liabilities must be grouped, based on significant level of inputs. The three-tier fair value hierarchy, which prioritizes the inputs used in the valuation methodologies, is as follows:

Level 1 — Quoted prices for identical assets and liabilities in active markets.

Level 2 — Observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets and liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data.

Level 3 — Unobservable inputs for the asset or liability.

The Company had no transfers between Level 1, Level 2, or Level 3 during the years ended December 31, 2017, 2016 or 2015. Goodwill is assessed annually for impairment in the second quarter of each year using fair value measurement techniques. Specifically, goodwill impairment is determined using a two-step test. Step 0 is a qualitative analysis of relevant events or circumstances to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. The first step of the goodwill impairment test is used to identify potential impairment by comparing the fair value of a reporting unit (RU) with its book value, including goodwill. If the fair value of the RU exceeds its book value, goodwill is considered not impaired. If the book value of the RU exceeds its fair value, an impairment charge is recognized for the amount by which the carrying amount exceeds the fair value of the RU.

The estimate of fair value of the Company's RUs is determined using various valuation techniques, including using an equally weighted combination of the market approach and the income approach. The market approach, which contains Level 2 inputs, utilizes readily available market valuation multiples to estimate fair value. The income approach is a valuation technique that utilizes the discounted cash flow (DCF) method, which includes Level 3 inputs. Under the DCF method, the fair value of the RU reflects the present value of the projected earnings that will be generated by each RU after taking into account the revenues and expenses associated with the asset, the relative risk that the cash flows will occur, the contribution of other assets, and an appropriate discount rate to reflect the value of the invested capital. Cash flows are estimated for future periods based upon historical data and projections by management.

As of December 31, 2017, the Company had recorded goodwill in the amount of \$3.3 billion. The Company performed its annual impairment test of its goodwill balances as of May 31, 2017, and this test did not indicate any impairment. The fair value of the RUs substantially exceeds the carrying value. Refer to Note 5 for more information regarding goodwill.

The fair value of the Company's long-term debt and obligations under capital leases is not significantly different from its carrying value, except for the Company's Senior Notes, which are discussed in Note 11.

### Note 3 Cash and Cash Equivalents

Cash and cash equivalent balances as of December 31, 2017 and 2016 are summarized as follows:

<i>(in thousands)</i>	2017	2016
Cash and cash equivalents in domestic accounts	\$ 396,577	375,122
Cash and cash equivalents in foreign accounts	53,780	50,232
<b>Total</b>	<b>\$ 450,357</b>	<b>425,354</b>

The Company maintains operating accounts outside the United States denominated in currencies other than the U.S. dollar. All amounts in domestic accounts are denominated in U.S. dollars.

### Note 4 Prepaid Expenses and Other Current Assets

Significant components of prepaid expenses and other current assets as of December 31, 2017 and 2016 are summarized as follows:

<i>(in thousands)</i>	2017	2016
Prepaid expenses	\$ 65,159	84,173
Income taxes receivable	41,400	-
R&D state tax credit	22,642	-
Supplies inventory	17,072	17,105
Other	70,292	63,210
<b>Total</b>	<b>\$ 216,565</b>	<b>164,488</b>

### Note 5 Goodwill

In 2016, the Company completed the TransFirst acquisition resulting in an additional \$1.7 billion of goodwill being recorded. In addition, there was a downward adjustment to goodwill of \$584,000 related to income tax reserves associated with the Netspend acquisition. In 2017, the Company adjusted the Netspend goodwill due to a tax adjustment of \$1.8 million relating to uncertain tax positions. In 2017, the Company decreased the Merchant Solutions goodwill due to deferred tax adjustments of \$12.1 million and the write-off of a note receivable of \$727,000 on the opening balance sheet of TransFirst.

The gross amount and accumulated impairment losses of goodwill as of December 31, 2017 and 2016 are as follows:

<i>(in thousands)</i>	2017			
	Issuer Solutions	Merchant Solutions	Netspend	Consolidated
<b>Gross amount</b>	<b>\$ 99,465</b>	<b>2,132,653</b>	<b>1,035,965</b>	<b>\$ 3,268,083</b>
<b>Accumulated impairment losses</b>	<b>(1,787)</b>	<b>(2,225)</b>	<b>-</b>	<b>(4,012)</b>
<b>Goodwill, net</b>	<b>\$ 97,678</b>	<b>2,130,428</b>	<b>1,035,965</b>	<b>\$ 3,264,071</b>

<i>(in thousands)</i>	2016			
	Issuer Solutions	Merchant Solutions	Netspend	Consolidated
Gross amount	\$ 96,733	2,144,061	1,034,170	\$ 3,274,964
Accumulated impairment losses	(1,787)	(2,225)	-	(4,012)
Goodwill, net	\$ 94,946	2,141,836	1,034,170	\$ 3,270,952

Below are the balances of goodwill as of December 31, 2017 and 2016 along with the related changes in carrying value.

<i>(in thousands)</i>	Issuer Solutions	Merchant Solutions	Netspend	Consolidated
Balance as of December 31, 2015	\$ 98,090	413,748	1,033,586	\$ 1,545,424
Netspend tax adjustment	-	-	584	584
TransFirst acquisition	-	1,728,088	-	1,728,088
Currency translation adjustments	(3,144)	-	-	(3,144)
Balance as of December 31, 2016	\$ 94,946	2,141,836	1,034,170	\$ 3,270,952
<b>Netspend tax adjustment</b>	<b>-</b>	<b>-</b>	<b>1,795</b>	<b>1,795</b>
<b>TransFirst acquisition adjustments</b>	<b>-</b>	<b>(11,408)</b>	<b>-</b>	<b>(11,408)</b>
<b>Currency translation adjustments</b>	<b>2,732</b>	<b>-</b>	<b>-</b>	<b>2,732</b>
<b>Balance as of December 31, 2017</b>	<b>\$ 97,678</b>	<b>2,130,428</b>	<b>1,035,965</b>	<b>\$ 3,264,071</b>

Refer to Note 22 for more information on acquisitions.

## Note 6 Other Intangible Assets, Net

Significant components of other intangible assets as of December 31, 2017 and 2016 are summarized as follows:

<i>(in thousands)</i>	2017		
	Gross	Accumulated Amortization	Net
Merchant relationships	\$ 588,000	(147,000)	\$ 441,000
Channel relationships	439,398	(200,540)	238,858
Customer relationships	167,222	(139,969)	27,253
Trade name	62,468	(58,068)	4,400
Covenants-not-to-compete	29,940	(20,815)	9,125
Database	28,000	(25,200)	2,800
Trade association	10,000	(7,750)	2,250
Favorable lease	3,006	(1,546)	1,460
<b>Total</b>	<b>\$ 1,328,034</b>	<b>(600,888)</b>	<b>\$ 727,146</b>

<i>(in thousands)</i>	2016		
	Gross	Accumulated Amortization	Net
Merchant relationships	\$ 588,000	(63,000)	\$ 525,000
Channel relationships	439,600	(148,815)	290,785
Customer relationships	166,340	(122,465)	43,875
Trade name	62,397	(45,197)	17,200
Covenants-not-to-compete	29,940	(13,869)	16,071
Database	28,000	(19,600)	8,400
Trade association	10,000	(6,750)	3,250
Favorable lease	3,006	(911)	2,095
<b>Total</b>	<b>\$ 1,327,283</b>	<b>(420,607)</b>	<b>\$ 906,676</b>

Amortization related to other intangible assets, which is recorded in selling, general and administrative expenses, was \$179.5 million, \$163.8 million and \$75.8 million for 2017, 2016 and 2015, respectively.

The weighted average useful life for each component of other intangible assets, and in total, as of December 31, 2017 is as follows:

	<b>Weighted Average Amortization Period (Years)</b>
Merchant relationships	7.0
Channel relationships	8.6
Customer relationships	8.2
Trade name	3.9
Covenants-not-to-compete	4.3
Database	5.0
Trade association	10.0
Favorable lease	5.1
Total	<u>7.4</u>

Estimated future amortization expense of other intangible assets as of December 31, 2017 for the next five years is:

<i>(in thousands)</i>	
2018	\$ 162,131
2019	145,457
2020	140,193
2021	119,620
2022	99,420

## Note 7 Intangible Assets - Computer Software, Net

Computer software as of December 31, 2017 and 2016 is summarized as follows:

<i>(in thousands)</i>	2017	2016
Licensed computer software	\$ 543,198	513,790
Software development costs	450,789	428,581
Acquisition technology intangibles	239,011	238,211
Total computer software	<u>1,232,998</u>	<u>1,180,582</u>
Less accumulated amortization:		
Licensed computer software	360,160	315,591
Software development costs	325,443	307,190
Acquisition technology intangibles	163,680	134,613
Total accumulated amortization	<u>849,283</u>	<u>757,394</u>
Computer software, net	<u>\$ 383,715</u>	<u>423,188</u>

The Company held the following computer software under license agreements as of December 31, 2017 and 2016:

<i>(in thousands)</i>	2017	2016
Licensed computer software (acquired under license agreements)	\$ 24,421	23,665
Accumulated amortization	(15,918)	(14,634)
Licensed computer software, net	<u>\$ 8,503</u>	<u>9,031</u>

Amortization expense includes amounts for computer software acquired under license agreements. The Company had the following amortization expense related to computer software for the years ended December 31, 2017, 2016 and 2015:

<i>(in thousands)</i>	2017	2016	2015
Amortization expense related to:			
Licensed computer software	\$ 51,247	45,655	41,823
Software development costs	27,461	26,478	22,740
Acquisition technology intangibles	28,267	26,217	16,734

The weighted average useful life for each component of computer software, and in total, as of December 31, 2017, is as follows:

	Weighted Average Amortization Period (Years)
Licensed computer software	5.8
Software development costs	6.0
Acquisition technology intangibles	6.1
Total	6.0

Estimated future amortization expense of licensed computer software, software development costs and acquisition technology intangibles as of December 31, 2017 for the next five years is:

<i>(in thousands)</i>	Licensed Computer Software	Software Development Costs	Acquisition Technology Intangibles
2018	\$ 45,008	23,503	25,793
2019	29,007	18,758	25,793
2020	24,388	14,588	20,134
2021	15,638	10,292	3,600
2022	12,606	6,138	-

## Note 8 Property and Equipment, Net

Property and equipment balances as of December 31, 2017 and 2016 are as follows:

<i>(in thousands)</i>	2017	2016
Computer and other equipment	\$ 424,957	356,358
Buildings and improvements	262,499	246,577
Furniture and other equipment	141,927	141,836
Land	16,195	15,877
Other	724	2,387
Total property and equipment	846,302	763,035
Less accumulated depreciation and amortization	(521,084)	(480,690)
Property and equipment, net	\$ 325,218	282,345

The Company has various types of equipment under capital lease arrangements. The Company has the following amounts of equipment under capital lease obligations as of December 31, 2017 and 2016:

<i>(in thousands)</i>	2017	2016
Computer and other equipment (acquired under capital lease arrangements)	\$ 92,553	51,702
Furniture and other equipment (acquired under capital lease arrangements)	5,451	5,412
Total equipment	98,004	57,114
Less accumulated depreciation:		
Computer and other equipment	(44,327)	(39,060)
Furniture and other equipment	(4,520)	(3,788)
Total accumulated depreciation	(48,847)	(42,848)
Total equipment, net	\$ 49,157	14,266

Depreciation and amortization expense includes amounts for computer equipment, furniture and other equipment acquired under capital lease. Depreciation and amortization expense related to property and equipment was \$68.0 million, \$62.5 million and \$56.6 million for the years ended December 31, 2017, 2016 and 2015, respectively.



## Note 9 Contract Acquisition Costs, Net

Significant components of contract acquisition costs as of December 31, 2017 and 2016 are summarized as follows:

<i>(in thousands)</i>	2017	2016
Conversion costs, net of accumulated amortization of \$176.4 million and \$164.4 million as of 2017 and 2016, respectively	\$ 139,249	144,173
Payments for processing rights, net of accumulated amortization of \$166.3 million and \$145.3 million as of 2017 and 2016, respectively	119,416	91,527
<b>Total</b>	<b>\$ 258,665</b>	<b>235,700</b>

Amortization expense related to contract acquisition costs for the years ended December 31, 2017, 2016 and 2015 is as follows:

<i>(in thousands)</i>	2017	2016	2015
Amortization expense related to:			
Conversion costs	\$ 29,625	28,811	27,392
Payments for processing rights	21,357	19,804	17,039

The weighted average useful life for each component of contract acquisition costs, and in total, as of December 31, 2017 is as follows:

	Weighted Average Amortization Period (Years)
Conversion costs	13.1
Payments for processing rights	16.3
<b>Total</b>	<b>14.7</b>

Estimated future amortization expense of conversion costs and payments for processing rights as of December 31, 2017 for the next five years is:

<i>(in thousands)</i>	Conversion Costs	Payments for Processing Rights
2018	\$ 36,890	27,211
2019	29,673	24,210
2020	23,475	21,786
2021	21,491	19,275
2022	16,581	15,123

## Note 10 Equity Investments

The Company has an equity investment in CUP Data and records its 44.56% ownership using the equity method of accounting. CUP Data is sanctioned by the People's Bank of China, China's central bank. CUP Data currently provides transaction processing, disaster recovery and other services for banks and bankcard issuers in China.

The Company also has an equity investment in TSYS de México and records its 49% ownership using the equity method of accounting. The operation prints statements and provides card-issuing support services to its clients.

The Company invests in limited partnership agreements in connection with investing in two Atlanta-based venture capital funds focused exclusively on investing in technology-enabled financial services companies. Pursuant to each limited partnership agreement, the Company has committed to invest up to \$20.0 million in each fund so long as its ownership interest in each fund does not exceed 50%. As of December 31, 2017 and 2016, the Company had made contributions to the funds of \$22.8 million and \$20.1 million, respectively.

TSYS' equity investments are recorded initially at cost and subsequently adjusted for equity in earnings, cash contributions and distributions, and foreign currency translation adjustments. TSYS believes the carrying value approximates the underlying net assets of the equity investments.

TSYS' equity in income of equity investments (net of tax) for the years ended December 31, 2017, 2016 and 2015 was \$40.5 million, \$26.1 million and \$25.4 million, respectively.

A summary of TSYS' equity investments as of December 31, 2017 and 2016 is as follows:

<i>(in thousands)</i>	2017	2016
CUP Data	\$ 127,367	101,638
Other	36,151	31,918
<b>Total</b>	<b>\$ 163,518</b>	<b>133,556</b>

## Note 11 Long-term Borrowings, Capital Lease Obligations and License Agreements

Long-term debt as of December 31, 2017 and 2016 consists of:

<i>(in thousands)</i>	2017	2016
3.800% Senior Notes due April 1, 2021 (5 year tranche), net of discount and debt issuance costs <sup>1</sup>	\$ 745,000	743,625
4.800% Senior Notes due April 1, 2026 (10 year tranche), net of discount and debt issuance costs <sup>1</sup>	743,042	742,383
2.375% Senior Notes due June 1, 2018 (5 year tranche), net of discount and debt issuance costs <sup>1</sup>	549,532	548,615
3.750% Senior Notes due June 1, 2023 (10 year tranche), net of discount and debt issuance costs <sup>1</sup>	544,780	543,947
LIBOR + 1.500%, unsecured term facility, due February 23, 2021, with quarterly principal and interest payments, net of debt issuance costs	368,645	697,832
LIBOR + 1.300%, unsecured revolving loan, due February 23, 2021, with monthly interest payments on outstanding balances	200,000	70,000
1.380% note payable due December 31, 2017, with monthly interest and principal payments	-	13,853
<b>Total debt</b>	<b>3,150,999</b>	<b>3,360,255</b>
<b>Less current portion</b>	<b>(559,050)</b>	<b>(48,040)</b>
<b>Noncurrent portion of long-term debt</b>	<b>\$ 2,591,949</b>	<b>3,312,215</b>

<sup>1</sup> As of December 31, 2017 and 2016, the estimated fair values of the Company's Senior Notes totaled \$2.684 billion and \$2.678 billion, respectively. The estimated fair values of the Company's Senior Notes were based on quoted prices in an active market and are considered to be level 1 measurements.

### Bilateral Loan Facility Commitment Letter

On December 16, 2017, the Company entered into an Agreement and Plan of Merger (the "Merger Agreement") with PCP CYN Merger Sub, Inc., a Delaware corporation and a wholly owned subsidiary of the Company, MW CYN Merger Sub, LLC, a Delaware limited liability company and a wholly owned subsidiary of the Company, Cayan Holdings LLC, a Delaware limited liability company ("Cayan"), PCP MW Holding Corp., a Delaware corporation and equityholder of Cayan ("PCP"), and Parthenon Investors IV L.P., a Delaware limited partnership, solely in its capacity as the representative of the equityholders of Cayan and PCP. In connection with the execution of the Merger Agreement, on December 16, 2017, the Company entered into a commitment letter with Bank of America N.A. (the "Commitment Party"), pursuant to which the Commitment Party has committed to provide a \$450.0 million two-year, bilateral loan facility (the "Bilateral Loan Facility") to finance the mergers to the extent the Company has not obtained alternative financing to pay the merger consideration on or prior to the closing. See Note 25 for further discussion of the Company's completion of the Cayan acquisition on January 11, 2018.

### Senior Notes

Concurrently with entering into the Stock Purchase Agreement to acquire TransFirst, the Company obtained commitments for a \$2.0 billion 364-day bridge term loan facility from JPMorgan Chase Bank, N.A., J.P. Morgan Securities LLC, Merrill Lynch, Pierce, Fenner & Smith Incorporated, Bank of America N.A., The Bank of Tokyo-Mitsubishi UFJ, Ltd, U.S. Bank National Association, Wells Fargo Securities, LLC and Wells Fargo Bank, National Association (collectively, the "Commitment Parties"). Thereafter, the Commitment Parties assigned portions of their commitments to certain other bridge facility lenders. Based on the terms of the bridge term loan facility commitment letter, upon entering into a credit agreement (the "2016 Credit Agreement"), the total commitments under the bridge term loan facility were reduced from \$2.0 billion to \$1.15 billion by the amount of a \$400 million term loan (the "Delayed Draw Term Loan") commitment and the portion of a \$800 million unsecured

revolving credit facility (the “Revolving Loan Facility”) commitments in excess of \$350 million. The bridge term loan facility was terminated in March 2016 after the issuance of the Notes described below.

On March 17, 2016, the Company closed its sale of \$750 million aggregate principal amount of 3.800% Senior Notes due 2021 and \$750 million aggregate principal amount of 4.800% Senior Notes due 2026 (collectively, the “2016 Notes”) pursuant to an agreement (the “Underwriting Agreement”) with J.P. Morgan Securities LLC and Merrill Lynch, Pierce, Fenner & Smith Incorporated, as representatives of the underwriters, whereby the Company agreed to sell and the Underwriters agreed to purchase the 2016 Notes from the Company, subject to and upon the terms and conditions set forth in the Underwriting Agreement. The Company used the net proceeds of the transaction to pay a portion of the approximately \$2.35 billion purchase price of the Company’s acquisition of TransFirst and related fees and expenses. The 2016 Notes were issued pursuant to a Senior Indenture, dated as of March 17, 2016, between the Company and Regions Bank, as trustee. The balance as of December 31, 2017 was \$745.0 million net of discount and debt issuance costs for the Senior Notes due April 1, 2021 and \$743.0 million net of discount and debt issuance costs for the Senior Notes due April 1, 2026.

In May 2013, the Company closed its issuance of \$550.0 million aggregate principal amount of 2.375% Senior Notes due 2018 and \$550.0 million aggregate principal amount of 3.750% Senior Notes due 2023 (collectively, the “2013 Notes”) pursuant to an Underwriting Agreement with J.P. Morgan Securities LLC, as representative of certain underwriters (the “Underwriters”), whereby the Company agreed to sell and the Underwriters agreed to purchase the 2013 Notes from the Company, subject to and upon the terms and conditions set forth in the Underwriting Agreement. The interest on the 2013 Notes are payable semiannually. The Company paid fees in 2013 associated with the issuance of these 2013 Notes of approximately \$8.9 million and recorded discounts of approximately \$4.3 million that are being amortized over the life of the 2013 Notes. The Company used the net proceeds of the transaction to pay a portion of the \$1.4 billion purchase price of the Company’s acquisition of Netspend and related fees and expenses. The 2013 Notes were issued pursuant to an Indenture dated as of May 22, 2013 between the Company and Wells Fargo Bank, National Association, as trustee. The balance as of December 31, 2017 was \$549.5 million net of discount and debt issuance costs for the Senior Notes due June 2018 and \$544.8 million net of discount and debt issuance costs for the Senior Notes due June 2023.

### *Term Loans and Other Borrowings*

On February 23, 2016, the Company entered into the 2016 Credit Agreement with JPMorgan Chase Bank, N.A., as Administrative Agent and L/C Issuer, Bank of America, N.A., as Syndication Agent and L/C Issuer, The Bank of Tokyo-Mitsubishi UFJ, LTD., U.S. Bank National Association and Wells Fargo Bank, National Association, as Co-Documentation Agents, and the other lenders party thereto, with J.P. Morgan Securities LLC and Merrill Lynch, Pierce, Fenner & Smith Incorporated, The Bank of Tokyo-Mitsubishi UFJ, LTD., U.S. Bank National Association and Wells Fargo Securities, LLC as joint lead arrangers and joint bookrunners. The 2016 Credit Agreement provided the Company with a \$700 million five-year term loan facility (the “Term Loan Facility”) consisting of (i) a \$300 million term loan (the “Refinancing Term Loan”) funded upon entry into the 2016 Credit Agreement and (ii) the Delayed Draw Term Loan. The 2016 Credit Agreement also provided the Company with the Revolving Loan Facility, which includes a \$50 million sub-facility for the issuance of standby letters of credit. The balance as of December 31, 2017 was \$368.6 million net of discount and debt issuance costs on the Term Loan Facility.

Borrowings under the 2016 Credit Agreement will accrue interest at the base rate (as defined in the 2016 Credit Agreement) or, for certain euro-denominated borrowings, the London Interbank Offered Rate (“LIBOR”), in each case plus a margin that is set based on the Company’s corporate credit ratings. The applicable margin for loans bearing interest based on LIBOR ranges from 0.900% to 1.500% for revolving loans and 1.000% to 1.750% for term loans. The applicable margin for loans bearing interest based on the base rate ranges from 0.000% to 0.500% for revolving loans and 0.000% to 0.750% for term loans. In addition, the Company will pay the lenders a facility fee ranging from 0.100% to 0.250% per annum, depending on the Company’s corporate credit ratings, on the commitments under the Revolving Loan Facility (regardless of usages) and the undrawn commitment amount in respect of the Delayed Draw Term Loan. Based on the Company’s current corporate credit ratings, (i) the applicable margin for loans accruing interest at the base rate is 0.500% for term loans and 0.300% for revolving loans and (ii) the applicable margin for loans accruing interest at LIBOR is 1.500% for term loans and 1.300% for revolving loans. The 2016 Credit Agreement contains customary covenants regarding, among other matters, the maintenance of insurance, the preservation and maintenance of the Company’s corporate existence, material compliance with laws and the payment of taxes and other material obligations. During the year ended December 31, 2017, the Company repaid \$70.0 million on the Revolving Loan Facility. As of December 31, 2017, the outstanding balance on the Revolving Loan Facility was \$200.0 million.

The Refinancing Term Loan was used to repay in full the Company’s outstanding loans and other obligations under that certain credit agreement, dated as of September 10, 2012, by and among the Company, the lenders party thereto and JPMorgan Chase Bank, N.A., as administrative agent thereunder, as amended, and that certain credit agreement, dated as of April 8, 2013, by and among the Company, the lenders party thereto and JPMorgan Chase Bank, N.A., as administrative agent thereunder, as amended. The Delayed Draw Term Loan was used to finance, in part, the TransFirst acquisition and

related transactions, upon satisfaction of a limited set of conditions precedent. The Revolving Loan Facility is available for draws for purposes of working capital and other general corporate purposes, including to finance, in part, the acquisition and related transactions upon satisfaction of a limited set of conditions precedent. The creditor group of the modified debt remained consistent before and after the debt was amended. Any exceptions were minor.

In December 2015, the Company entered into a \$30.0 million financing agreement for perpetual software licenses. The agreement was paid during 2017 and no outstanding balance remains.

### *Debt Covenants*

The 2013 and 2016 Notes also contain various affirmative and negative covenants, including those that create limitations on the Company's:

- creation of liens;
- merging or selling assets unless certain conditions are met; and
- entering into sale/leaseback transactions.

The 2013 and 2016 Notes also contain a provision that requires the Company to repurchase all or any portion of a holder's notes, at the holder's option, if a Change in Control Repurchase Event occurs, as defined in the Prospectus Supplements for the 2013 and 2016 Notes offerings.

### *Annual Principal Payments on Long-term Debt*

Required annual principal payments on long-term debt for the five years subsequent to December 31, 2017 are summarized as follows:

<i>(in thousands)</i>	
2018	\$ 560,000
2019	40,000
2020	40,000
2021	1,230,000
2022	-

### *Capital Lease Obligations and License Agreements*

Capital lease obligations and license agreements as of December 31, 2017 and 2016 consist of:

<i>(in thousands)</i>	2017	2016
Capital lease obligations	<b>\$ 37,950</b>	3,748
License agreements	<b>4,865</b>	-
Total capital lease obligations and license agreements	<b>42,815</b>	3,748
Less current portion	<b>(6,762)</b>	(2,687)
Noncurrent portion of capital leases and license agreements	<b>\$ 36,053</b>	1,061

The Company acquires various computer equipment, software, machinery and equipment and furniture and fixtures under capital lease obligations and license agreements. Refer to Notes 7, 8 and 21 for more information. The capital lease and license agreements obligations have various payment terms for each capital lease obligation, including single payment leases, monthly, quarterly and annually. The lease terms for the equipment and software range from one to six years.

The future minimum lease payments under capital leases and license agreements as of December 31, 2017 are summarized as follows:

<i>(in thousands)</i>	<b>Capital Leases</b>	<b>License Agreements</b>
2018	\$ 6,652	1,449
2019	6,204	1,621
2020	6,127	1,275
2021	6,127	691
2022	6,095	39
Thereafter	11,484	-
Total minimum lease payments	42,689	5,075
Less amount representing interest	(4,739)	(210)
Principal minimum lease payments	<u>\$ 37,950</u>	<u>4,865</u>

## Note 12 Other Current Liabilities

Significant components of other current liabilities as of December 31, 2017 and 2016 are summarized as follows:

<i>(in thousands)</i>	<b>2017</b>	<b>2016</b>
Deferred revenues	\$ 52,913	40,473
Accrued expenses	38,018	32,861
Accrued third-party commissions	34,276	28,310
Dividends payable	24,886	19,513
Accrued interest	19,330	19,029
Litigation settlements	1,380	20,795
Income taxes payable	185	1,673
Other	107,847	100,605
Total	<u>\$ 278,835</u>	<u>263,259</u>

## Note 13 Income Taxes

The provision for income taxes includes income taxes currently payable and those deferred because of temporary differences between the financial statement carrying amounts and tax bases of assets and liabilities.

The components of income tax expense included in the Consolidated Statements of Income are as follows:

<i>(in thousands)</i>	<b>Years Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Current income tax expense:			
Federal	\$ 210,550	140,079	139,228
State	20,316	9,218	9,255
Foreign	7,500	4,443	4,762
Total current income tax expense	<u>238,366</u>	<u>153,740</u>	<u>153,245</u>
Deferred income tax (benefit) expense:			
Federal	(178,879)	8,393	(2,198)
State	5,093	(65)	442
Foreign	1,298	(893)	(125)
Total deferred income tax (benefit) expense	<u>(172,488)</u>	<u>7,435</u>	<u>(1,881)</u>
Total income tax expense	<u>\$ 65,878</u>	<u>161,175</u>	<u>151,364</u>

<i>(in thousands)</i>	<b>Years Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Components of income before income tax expense:			
Domestic	\$ 603,260	454,628	485,191
Foreign	14,302	6,404	8,373
Total income before income tax expense	<u>\$ 617,562</u>	<u>461,032</u>	<u>493,564</u>



Income tax expense differs from the amounts computed by applying the statutory U.S. federal income tax rate of 35% to income before income taxes, noncontrolling interest and equity in income of equity investments as a result of the following:

<i>(in thousands)</i>	Years Ended December 31,		
	2017	2016	2015
Computed "expected" income tax expense	\$ 216,147	161,425	173,911
Increase (decrease) in income tax expense resulting from:			
International tax rate differential and equity income	11,953	8,715	8,367
State income tax expense, net of federal income tax effect	12,470	9,127	7,101
Increase (decrease) in valuation allowance	8,230	2,855	(517)
Tax credits	(20,998)	(15,695)	(28,831)
Share-based compensation	(14,310)	—	—
Deduction for domestic production activities	(17,150)	(12,950)	(11,550)
Re-measurement of deferred tax asset / deferred tax liability	(146,093)	—	—
Permanent differences and other, net	15,629	7,698	2,883
Total income tax expense	\$ 65,878	161,175	151,364

Temporary differences between the financial statement carrying amounts and tax bases of assets and liabilities that give rise to significant portions of the net deferred tax liability as of December 31, 2017 and 2016 relate to the following:

<i>(in thousands)</i>	As of December 31,	
	2017	2016
Deferred income tax assets:		
Net operating loss and income tax credit carryforwards	\$ 35,089	34,490
Allowances for doubtful accounts and billing adjustments	852	1,512
Deferred revenue	17,813	27,461
Share-based compensation	15,170	25,497
Foreign currency translation	—	4,019
Other, net	14,915	38,341
Total deferred income tax assets	83,839	131,320
Less valuation allowance for deferred income tax assets	(29,531)	(21,301)
Net deferred income tax assets	54,308	110,019
Deferred income tax liabilities:		
Excess tax over financial statement depreciation	(43,056)	(63,432)
Computer software development costs	(48,244)	(80,837)
Purchased intangibles	(42,467)	(344,547)
Foreign currency translation	(942)	—
Partnership interests	(143,908)	(18,776)
Other, net	(7,917)	(14,924)
Total deferred income tax liabilities	(286,534)	(522,516)
Net deferred income tax liabilities	\$ (232,226)	(412,497)
Total net deferred tax assets (liabilities):		
Noncurrent deferred tax asset	\$ 6,091	7,055
Noncurrent deferred tax liability	(238,317)	(419,552)
Net deferred tax liability	\$ (232,226)	(412,497)

As of December 31, 2017, TSYS had recognized deferred tax assets from net operating losses, capital losses and federal and state income tax credit carryforwards of \$6.6 million, \$0.3 million and \$28.2 million, respectively. As of December 31, 2016, TSYS had recognized deferred tax assets from net operating losses, capital losses, and federal and state income tax credit carryforwards of \$8.5 million, \$0.4 million, and \$25.6 million, respectively. Additionally, net deferred income tax liabilities were decreased by \$144.5 million as a result of the Tax Cuts and Jobs Act of 2017 (the "Tax Act").

In assessing the realizability of deferred income tax assets, management considers whether it is more likely than not that some portion or all of the deferred income tax assets will not be realized. The ultimate realization of deferred income tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment.

Management believes it is more likely than not that TSYS will realize the benefits of these deductible differences, net of existing valuation allowances. The valuation allowance for deferred tax assets was \$29.5 million and \$21.3 million at December 31, 2017 and 2016, respectively. The increase in the valuation allowance for deferred income tax assets was \$8.2 million for 2017. The increase relates to foreign tax credits and foreign net operating losses which, more likely than not, will not be realized in later years.

On December 22, 2017, the President signed into law the Tax Act. Some key provisions of this law impacted the Company. One such provision was the reduction of the Federal corporate income tax rate from 35% to 21%. This required the Company to remeasure its U.S. deferred tax assets and liabilities. Upon remeasurement of such, TSYS recognized a benefit of \$144.5 million as a discrete item in 2017. Another provision of the Tax Act that impacted TSYS during this reporting period was the one-time transition tax on the deemed repatriation of foreign accumulated earnings. This deemed repatriation mandated the Company to calculate effective tax rates of 15% and 8% respectively on cash and non-cash foreign accumulated earnings. Additionally, the Company was obligated to recognize certain tax credits and reassess the realizability of certain deferred tax assets. The net impact of this one-time transition tax was an expense of \$4.9 million.

Additionally, the Tax Act provides for two U.S. tax base erosion provisions which begin in 2018. They are the global intangible low-taxed income (GILTI) and the base-erosion and anti-abuse tax (BEAT). TSYS's calculation indicate no impact related to GILTI in 2017. However, TSYS will perform all necessary calculations, make any needed elections and report any 2018 impacts of GILTI as appropriate. Currently, TSYS is not expected and does not expect to be impacted by BEAT in the future.

TSYS has adopted the permanent reinvestment exception under GAAP, with respect to earnings of certain foreign subsidiaries. As a result, TSYS considers foreign earnings related to these foreign operations to be permanently reinvested. However, pursuant to U.S. tax requirements, a provision for U.S. federal and state incomes taxes has been made in the consolidated financial statements for those non-U.S. subsidiaries whose earnings were deemed to be repatriated. The amount of undistributed earnings considered to be "reinvested" which may be subject to tax upon distribution was approximately \$103.3 million as of December 31, 2017. Although TSYS does not intend to repatriate these earnings, a distribution of these non-U.S. earnings in the form of dividends, or otherwise, may subject the Company to withholding taxes payable to the various non-U.S. countries.

TSYS is the parent of an affiliated group that files a consolidated U.S. federal income tax return and most state and foreign income tax returns on a separate entity basis. In the normal course of business, the Company is subject to examinations by these taxing authorities unless statutory examination periods lapse. TSYS is no longer subject to U.S. federal income tax examinations for years before 2011 and with few exceptions, the Company is no longer subject to income tax examinations from state and local or foreign tax authorities for years before 2011. There are currently federal income tax examinations in progress for the years 2011 through 2013. Additionally, a number of tax examinations are in progress by the relevant state tax authorities. Although TSYS is unable to determine the ultimate outcome of these examinations, TSYS believes that its liability for uncertain tax positions relating to these jurisdictions for such years is adequate.

GAAP prescribes a recognition threshold and measurement attribute for the financial statement recognition, measurement and disclosure of a tax position taken or expected to be taken in a tax return. During the year ended December 31, 2017, TSYS increased its liability for uncertain income tax positions by a net amount of approximately \$7.3 million. The Company is not able to reasonably estimate the amount by which the liability will increase or decrease over time; however, at this time, the Company does not expect any significant changes related to these obligations within the next twelve months.

A reconciliation of the beginning and ending amount of unrecognized tax liabilities is as follows <sup>1</sup>:

(in millions)	Years Ended December 31,		
	2017	2016	2015
Beginning balance	\$ 16.5	13.1	6.7
Current activity:			
Additions based on tax positions related to current year	4.9	3.4	2.3
Additions for tax positions of prior years	4.6	3.0	4.7
Reductions for tax positions of prior years	—	—	(0.6)
Decreases resulting from settlements with tax authorities	(2.2)	(3.0)	—
Net current activity	7.3	3.4	6.4
Ending balance	\$ 23.8	16.5	13.1

<sup>1</sup> Unrecognized state tax liabilities are not adjusted for the federal tax impact.

TSYS recognizes potential interest and penalties related to the underpayment of income taxes as income tax expense in the Consolidated Statements of Income. Gross accrued interest and penalties on unrecognized tax benefits totaled \$2.0 million and \$1.8 million as of December 31, 2017 and December 31, 2016, respectively. The total amounts of unrecognized income

tax benefits as of December 31, 2017 and December 31, 2016 that, if recognized, would affect the effective tax rates are \$24.5 million and \$17.0 million (net of the federal benefit on state tax issues), respectively, which includes interest and penalties of \$1.3 million and \$1.2 million, respectively.

## Note 14 Commitments and Contingencies

**LEASE AND PURCHASE COMMITMENTS:** TSYS is obligated under noncancelable operating leases for computer equipment, software and facilities. Additionally, the Company has long-term obligations which consist of required minimum future payments under contracts with the Company's distributors and other service providers.

The future minimum lease payments under noncancelable operating leases and purchase commitments with remaining terms greater than one year for the next five years and thereafter and in the aggregate as of December 31, 2017, are as follows:

<i>(in thousands)</i>	
2018	\$ 145,866
2019	148,006
2020	71,651
2021	38,803
2022	28,095
Thereafter	77,555
<b>Total future minimum commitment payments</b>	<b>\$ 509,976</b>

The majority of computer equipment lease commitments come with a renewal option or an option to terminate the lease. These lease commitments may be replaced with new leases which allow the Company to continually update its computer equipment. Total rental expense under all operating leases in 2017, 2016 and 2015 was \$134.0 million, \$122.9 million and \$124.8 million, respectively.

**CONTRACTUAL COMMITMENTS:** In the normal course of its business, the Company maintains long-term processing contracts with its clients. These processing contracts contain commitments, including, but not limited to, minimum standards and time frames against which the Company's performance is measured. In the event the Company does not meet its contractual commitments with its clients, the Company may incur penalties and certain clients may have the right to terminate their contracts with the Company. The Company does not believe that it will fail to meet its contractual commitments to an extent that will result in a material adverse effect on its financial position, results of operations or cash flows.

### CONTINGENCIES:

#### *Legal Proceedings – General*

The Company is subject to various legal proceedings and claims and is also subject to information requests, inquiries and investigations arising out of the ordinary conduct of its business. The Company establishes accruals for litigation and similar matters when those matters present loss contingencies that TSYS determines to be both probable and reasonably estimable in accordance with GAAP. Legal costs are expensed as incurred. In the opinion of management, based on current knowledge and in part upon the advice of legal counsel, all matters not specifically discussed below are believed to be adequately covered by insurance, or, if not covered, the possibility of losses from such matters are believed to be remote or such matters are of such kind or involve such amounts that would not have a material adverse effect on the financial position, results of operations or cash flows of the Company if disposed of unfavorably.

#### TelexFree Matter

ProPay, Inc. (ProPay), a subsidiary of the Company, has been named as one of a number of defendants (including other merchant processors) in several purported class action lawsuits relating to the activities of TelexFree, Inc. and its affiliates and principals. TelexFree is a former merchant customer of ProPay. With regard to TelexFree, each purported class action lawsuit generally alleges that TelexFree engaged in an improper multi-tier marketing scheme involving voice-over Internet protocol telephone services. The plaintiffs in each of the purported class action complaints generally allege that the various merchant processor defendants, including ProPay, aided and abetted the improper activities of TelexFree. TelexFree filed for bankruptcy protection in Nevada. The bankruptcy proceeding was subsequently transferred to the Massachusetts Bankruptcy Court.

Specifically, ProPay has been named as one of a number of defendants (including other merchant processors) in each of the following purported class action complaints relating to TelexFree: (i) Waldermara Martin, et al. v. TelexFree, Inc., et al. (Case

No. BK-S-14-12524-ABL) (Bankr. D. Nev.); (ii) Anthony Cellucci, et al. v. TelexFree, Inc., et. al. (Case No. 4:14-BK-40987) (Bankr. D. Mass.); (iii) Maduako C. Ferguson Sr., et al. v. Telexelectric, LLP, et. al (Case No. 5:14-CV-00316-D) (E.D.N.C.); (iv) Todd Cook v. TelexElectric LLP et al. (Case No. 2:14-CV-00134) (N.D. Ga.); (v) Felicia Guevara v. James M. Merrill et al., CA No. 1:14-cv-22405-DPG) (S.D. Fla.); (vi) Reverend Jeremiah Githere, et al. v. TelexElectric LLP et al. (Case No. 1:14-CV-12825-GAO) (D. Mass.); (vii) Paulo Eduardo Ferrari et al. v. Telexfree, Inc. et al. (Case No. 14-04080) (Bankr. D. Mass.); (viii) Magalhaes v. TelexFree, Inc., et al., No. 14-cv-12437 (D. Mass.); (ix) Griffith v. Merrill et al., No. 14-CV-12058 (D. Mass.); (x) Abelgadir v. Telexelectric, LLP, No. 14-09857 (S.D.N.Y.); and (xi) *Rita Dos Santos, v. TelexElectric, LLP et al.*, 2:15-cv-01906-NVW (D. Ariz.) (together, the “Actions”).

On October 21, 2014, the Judicial Panel on Multidistrict Litigation (“JPML”) transferred and consolidated the Actions filed before that date to the United States District Court for the District of Massachusetts (the “Consolidated Action”). The JPML subsequently transferred the remaining Actions to the Consolidated Action. The Consolidated Action is styled In Re: TelexFree Securities Litigation (4:14-md-02566-TSH) (D. Mass.).

The plaintiffs in the Consolidated Action filed a First Consolidated Amended Complaint on March 31, 2015 and filed a Second Consolidated Amended Complaint (the “Second Amended Complaint”) on April 30, 2015. The Second Amended Complaint, which supersedes the complaints filed prior to consolidation of the Actions, purports to bring claims on behalf of all persons who purchased certain TelexFree “memberships” and suffered a “net loss” between January 1, 2012 and April 16, 2014. With respect to ProPay, the Second Amended Complaint alleges that ProPay aided and abetted tortious acts committed by TelexFree, and that ProPay was unjustly enriched in the course of providing payment processing services to TelexFree. Several defendants, including ProPay, moved to dismiss the Second Amended Complaint on June 2, 2015. The court held a hearing on the motions to dismiss on November 2, 2015, but has not yet issued a ruling.

At present, pursuant to a court order, all discovery in the action is stayed pending the resolution of parallel criminal proceedings against certain former principals of TelexFree, Inc. Despite that stay of discovery, the lead plaintiffs have subpoenaed documents previously produced by ProPay pursuant to the Federal Rules of Bankruptcy Procedure to the court-appointed trustee in the TelexFree bankruptcy proceeding. ProPay has filed a motion to quash that subpoena. ProPay’s motion remains pending before the Court. On April 4, 2017, lead plaintiffs moved the court for leave to further amend the Second Amended Complaint, and submitted a proposed amendment with their motion. The proposed amendment seeks to add new defendants to the case but does not make any new or additional allegations against ProPay. ProPay, along with certain other defendants in the litigation, have not opposed the lead plaintiffs’ motion to further amend the Second Amended Complaint so long as the amendment, if allowed by the court, would not delay the court’s decision on the pending motions to dismiss. Lead plaintiffs’ motion for leave to amend is pending before the court.

ProPay has also received various subpoenas, a seizure warrant and other inquiries requesting information regarding TelexFree from (i) the Commonwealth of Massachusetts, Securities Division, (ii) United States Securities and Exchange Commission, (iii) US Immigration and Customs Enforcement, and (iv) the bankruptcy Trustee of the Chapter 11 entities of TelexFree, Inc., TelexFree, LLC and TelexFree Financial, Inc. Pursuant to the seizure warrant served by the United States Attorney’s Office for the District of Massachusetts, ProPay delivered all funds associated with TelexFree held for chargeback and other purposes by ProPay to US Immigration and Customs Enforcement. In addition, ProPay received a notice of potential claim from the bankruptcy Trustee as a result of the relationship of ProPay with TelexFree and its affiliates.

The above proceedings and actions are preliminary in nature. While the Company and ProPay intend to vigorously defend matters arising out of the relationship of ProPay with TelexFree and believe ProPay has substantial defenses related to these purported claims, the Company currently cannot reasonably estimate losses attributable to these matters.

**GUARANTEES AND INDEMNIFICATIONS:** The Company has entered into processing and licensing agreements with its clients that include intellectual property indemnification clauses. Under these clauses, the Company generally agrees to indemnify its clients, subject to certain exceptions, against legal claims that TSYS’ services or systems infringe on certain third party patents, copyrights or other proprietary rights. In the event of such a claim, the Company is generally obligated to hold the client harmless and pay for related losses, liabilities, costs and expenses, including, without limitation, court costs and reasonable attorney’s fees. The Company has not made any indemnification payments pursuant to these indemnification clauses.

A portion of the Company’s business is conducted through distributors that provide load and reload services to cardholders at their locations. Members of the Company’s distribution and reload network collect cardholder funds and remit them by electronic transfer to the issuing banks for deposit in the cardholder accounts. The Company’s issuing banks typically receive cardholders’ funds no earlier than three business days after they are collected by the distributor. If any distributor fails to remit cardholders’ funds to the Company’s issuing banks, the Company typically reimburses the issuing banks for the shortfall created thereby. The Company manages the risk associated with this process through a formalized set of credit standards, volume limits and deposit requirements for certain distributors and by typically maintaining the right to offset any settlement



shortfall against the commissions payable to the relevant distributor. To date, the Company has not experienced any significant losses associated with settlement failures and the Company had not recorded a settlement guarantee liability as of December 31, 2017. As of December 31, 2017 and 2016, the Company's estimated gross settlement exposure was \$16.7 million and \$13.8 million, respectively.

GPR cardholders can incur charges in excess of the funds available in their accounts and are liable for the resulting overdrawn account balance. Although the Company generally declines authorization attempts for amounts that exceed the available balance in a cardholder's account, the application of the Networks' rules and regulations, the timing of the settlement of transactions and the assessment of subscription, maintenance or other fees can, among other things, result in overdrawn card accounts. The Company also provides, as a courtesy and in its discretion, certain cardholders with a "cushion" that allows them to overdraw their card accounts by up to \$10. In addition, eligible cardholders may enroll in the issuing banks' overdraft protection programs and fund transactions that exceed the available balance in their accounts. The Company generally provides the funds used as part of these overdraft programs (one of the Company's issuing banks will advance the first \$1.0 million on behalf of its cardholders) and is responsible to the issuing banks for any losses associated with any overdrawn account balances. As of December 31, 2017 and 2016, cardholders' overdrawn account balances totaled \$25.5 million and \$21.2 million, respectively. As of December 31, 2017 and 2016, the Company's reserves for the losses it estimates will arise from processing customer transactions, debit card overdrafts, chargebacks for unauthorized card use and merchant-related chargebacks due to non-delivery of goods or services was \$9.5 million and \$10.5 million, respectively.

The Company has not recorded a liability for guarantees or indemnities in the accompanying consolidated balance sheet since the maximum amount of potential future payments under such guarantees and indemnities is not determinable.

**PRIVATE EQUITY INVESTMENTS:** The Company has limited partnership agreements with two Atlanta-based venture capital funds focused exclusively on investing in technology-enabled financial services companies. Pursuant to each limited partnership agreement, the Company has committed to invest up to \$20.0 million in each fund so long as its ownership interest in each fund does not exceed 50%. As of December 31, 2017 and 2016, the Company had made contributions to the funds of \$22.8 million and \$20.1 million, respectively. The Company had investments, including equity in income, totaling \$26.1 million and \$22.8 million, respectively, as of December 31, 2017 and 2016.

## Note 15 Employee Benefit Plans

The Company provides benefits to its employees by offering employees participation in certain defined contribution plans. The employee benefit plans through which TSYS provided benefits to its employees during 2017 are described as follows:

**RETIREMENT SAVINGS AND STOCK PURCHASE PLANS:** TSYS maintains a single plan, the TSYS Retirement Savings Plan, which is designed to reward all team members of TSYS U.S.-based companies with a uniform employer contribution. The terms of the plan provide for the Company to match 100% of the employee contribution up to 4% of eligible compensation. The Company can make discretionary contributions up to another 4% based upon business conditions.

The Company also maintains a stock purchase plan for employees. The Company contributes 15% of employee contributions. The funds are used to purchase presently issued and outstanding shares of TSYS common stock on the open market at fair market value for the benefit of participants. The Company's contributions to the plans charged to expense for the years ended December 31, 2017, 2016 and 2015 are as follows:

<i>(in thousands)</i>	2017	2016	2015
TSYS Retirement Savings Plan	\$ 23,113	21,077	24,169
TSYS Stock Purchase Plan	1,600	1,514	1,378

**POSTRETIREMENT MEDICAL BENEFITS PLAN:** TSYS provides certain medical benefits to qualified retirees through a postretirement medical benefits plan, which is immaterial to the Company's consolidated financial statements. The measurement of the benefit expense and accrual of benefit costs associated with the plan do not reflect the effects of the 2003 Medicare Act. Additionally, the benefit expense and accrued benefit cost associated with the plan, as well as any potential impact of the effects of the 2003 Medicare Act, are not significant to the Company's consolidated financial statements.

## Note 16 Equity

**DIVIDENDS:** Dividends on common stock of \$79.0 million were paid in 2017, compared to \$73.4 million and \$73.7 million in 2016 and 2015, respectively.



**EQUITY COMPENSATION PLANS:** The following table summarizes TSYS' equity compensation plans by category as of December 31, 2017:

(in thousands, except per share data) Plan Category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights	(b) Weighted-average exercise price of outstanding options, warrants and rights	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders	4,561	\$ 37.15 <sup>1</sup>	14,888 <sup>2</sup>

The Company does not have any equity compensation plans that were not approved by security holders.

<sup>1</sup> Weighted-average exercise price represents 2.7 million options only and does not include restricted share units that have no exercise price.

<sup>2</sup> Shares available for future grants under the Total System Services, Inc. 2017 Omnibus Plan, which could be in the form of options, nonvested awards and performance shares.

## Note 17 Share-Based Compensation

TSYS has various long-term incentive plans under which the Compensation Committee of the Board of Directors has the authority to grant share-based compensation to TSYS employees.

### Share-Based Compensation and Long-Term Incentive Plans

TSYS maintains the Total System Services, Inc. 2017 Omnibus Plan, Total System Services, Inc. 2012 Omnibus Plan, Total System Services, Inc. 2007 Omnibus Plan, Total System Services, Inc. 2002 Long-Term Incentive Plan, Total System Services, Inc. 2000 Long-Term Incentive Plan and the Amended and Restated Netspend Holdings, Inc. 2004 Equity Incentive Plan for Options and Restricted Shares Assumed by Total System Services, Inc. to advance the interests of TSYS and its shareholders through awards that give employees and directors a personal stake in TSYS' growth, development and financial success. Awards under these plans are designed to motivate employees and directors to devote their best efforts to the business of TSYS. Awards will also help TSYS attract and retain the services of employees and directors who are in a position to make significant contributions to TSYS' success.

The plans are administered by the Compensation Committee of the Company's Board of Directors and enable the Company to grant nonqualified and incentive stock options, stock appreciation rights, restricted stock and restricted stock units, performance units or performance shares, cash-based awards and other stock-based awards.

All stock options must have a maximum life of no more than ten years from the date of grant. The exercise price will not be less than 100% of the fair market value of TSYS' common stock at the time of grant. Any shares related to awards which terminate by expiration, forfeiture, cancellation or otherwise without the issuance of shares, are settled in shares, or are exchanged with the Committee's permission, prior to the issuance of shares, for awards not involving shares, shall be available again for grant under the Total System Services, Inc. 2017 Omnibus Plan. Effective as of, or prior to, April 27, 2017, no additional awards may be made from any of the other plans. The aggregate number of shares of TSYS stock which may be granted, or could have been granted, to participants pursuant to awards granted under the various plans may not exceed the following: Total System Services, Inc. 2017 Omnibus Plan – 15 million shares; Total System Services, Inc. 2012 Omnibus Plan - 17 million shares; Total System Services, Inc. 2007 Omnibus Plan - 5 million shares; Total System Services, Inc. 2002 Long – Term Incentive Plan - 9.4 million shares; and Total System Services, Inc. 2000 Long-Term Incentive Plan - 2.4 million shares.

Share-based compensation costs are classified as selling, general and administrative expenses on the Company's consolidated statements of income and corporate administration and other expenses for segment reporting purposes. TSYS' share-based compensation costs are expensed, rather than capitalized, as these awards are typically granted to individuals not involved in capitalizable activities. For the year ended December 31, 2017, share-based compensation was \$42.4 million compared to \$43.7 million and \$41.5 million for the same periods in 2016 and 2015, respectively.

### Nonvested Awards

The Company granted shares of TSYS common stock to certain key employees and non-management members of its Board of Directors. The grants to certain key employees were issued under nonvested stock bonus awards and are typically for services to be provided in the future and vest over a period of up to four years. The grants to the Board of Directors were fully vested on the date of grant. The market value of the TSYS common stock at the date of issuance is charged as compensation expense over the vesting periods or derived service periods.

The following table summarizes the number of shares granted each year:

	2017	2016	2015
Number of shares granted	329,051	362,804	388,211
Market value (in millions)	\$ 18.1	16.8	14.9

A summary of the status of TSYS' nonvested shares as of December 31, 2017, 2016 and 2015 and the changes during the periods are presented below:

(in thousands, except per share data)	2017		2016		2015	
	Shares	Weighted Average Grant-Date Fair Value	Shares	Weighted Average Grant-Date Fair Value	Shares	Weighted Average Grant-Date Fair Value
Nonvested shares						
Outstanding at beginning of year	863	\$ 37.78	1,146	\$ 31.11	1,769	\$ 26.75
Granted	329	55.06	363	46.23	388	38.38
Vested	(458)	36.01	(563)	29.95	(930)	26.05
Forfeited/canceled/adjusted	(100)	43.82	(84)	36.79	(81)	28.78
Outstanding at end of year	634	\$ 47.19	863	\$ 37.78	1,146	\$ 31.11

As of December 31, 2017, there was approximately \$15.8 million of total unrecognized compensation cost related to nonvested share-based compensation arrangements. That cost is expected to be recognized over a remaining weighted average period of 1.8 years.

#### Performance- and Market-Based Awards

The Company granted performance- and market-based shares to certain key executives. The Company has also granted performance-based shares to certain key employees. The performance- and market-based goals are established by the Compensation Committee of the Board of Directors and will vest up to a maximum of 200% of target. During 2017 and 2016, the Compensation Committee established performance goals based on various financial and market-based measures.

Compensation expense for performance-based shares is measured on the grant date based on the quoted market price of TSYS common stock. The Company estimates the probability of achieving the goals through the performance period and expenses the awards on a straight-line basis over the derived service period. The fair value of market-based awards is estimated on the grant date using a Monte Carlo simulation model. The Company expenses market-based awards on a straight-line basis. Compensation costs related to performance- and market-based shares are recognized through the longer of the performance period, the vesting period, or the derived service period. As of December 31, 2017, there was approximately \$16.0 million of unrecognized compensation cost related to TSYS performance-based awards that is expected to be recognized through December 2018. As of December 31, 2017, there was approximately \$1.6 million of unrecognized compensation cost related to TSYS market-based awards that is expected to be recognized through December 2018.

The following table summarizes the market-based awards granted during the years 2017, 2016 and 2015:

Year Awarded	Performance Period Ending	Performance Measure	Number of Shares Granted	Period Expensed Through
2017	December 2019	TSR	44,275	December 2019
2016	December 2017	TSR	6,403	December 2017
2016	December 2018	TSR	52,404	December 2018
2015	July 2016, 2017 and 2018	TSR	25,000	July 2018
2015	December 2017	TSR	57,982	December 2017

The following table summarizes the performance-based awards granted during the years 2017, 2016 and 2015:

Year Awarded	Performance Period Ending	Performance Measure	Number of Shares Granted	Period Expensed Through
2017	December 2019	Adjusted Diluted EPS <sup>1</sup>	103,297	December 2019
2017	December 2017	Net Revenue and Adjusted Diluted EPS <sup>1</sup>	146,094	December 2019
2017	December 2017	Issuer Solutions Segment Net Revenue and Adjusted Segment Operating Income <sup>2</sup>	26,145	December 2019
2016	December 2016	Revenues before Reimbursable Items <sup>4</sup> and Adjusted EPS <sup>3</sup>	15,605	December 2016
2016	December 2017	Adjusted EPS <sup>3</sup>	14,940	December 2017
2016	December 2018	Merchant Segment Net Revenue, Corporate Accountability Operating Income (CAOI) <sup>2</sup> and attainment of synergies from TransFirst acquisition	29,332	December 2018
2016	December 2018	Revenue Growth and CAOI Growth <sup>2</sup>	67,517	December 2018
2016	December 2018	Merchant Segment Net Revenue and CAOI <sup>2</sup>	78,220	December 2018
2016	December 2018	Adjusted EPS <sup>3</sup>	122,284	December 2018
2016	December 2016	Revenues before Reimbursable Items <sup>4</sup> and Adjusted EPS <sup>3</sup>	144,995	December 2018
2015	December 2017	Adjusted EPS <sup>3</sup>	135,289	December 2017
2015	December 2015	Revenues before Reimbursable Items <sup>4</sup> and Adjusted EPS <sup>3</sup>	165,543	December 2018

<sup>1</sup> Adjusted Diluted EPS is adjusted earnings divided by weighted average diluted shares outstanding used for diluted EPS calculations. Adjusted earnings is net income excluding the after-tax impact of share-based compensation expenses, amortization of acquisition intangibles, merger and acquisition expenses for completed acquisitions and litigation claims, judgments or settlement expenses and related legal expenses.

<sup>2</sup> CAOI is adjusted segment operating income and includes corporate administrative expenses. Adjusted segment operating income is defined in Note 20.

<sup>3</sup> Adjusted EPS is adjusted earnings divided by weighted average shares outstanding used for basic EPS.

<sup>4</sup> Revenues before Reimbursable Items is total revenue less reimbursable items which consist of out-of-pocket expenses which are reimbursed by the Company's clients. These expenses consist primarily of postage, access fees and third-party software.

A summary of the awards authorized in each year is below:

	Total Number of Shares Awarded <sup>1</sup>	Potential Number of Performance- and Market-Based Shares to be Vested <sup>2</sup>	Year Potential Performance- and Market-Based Shares Will Fully Vest <sup>3</sup>
<b>2017</b>	<b>319,811</b>	<b>596,192</b>	<b>2020</b>
2016	531,700	903,364	2019
2015	383,814	687,015	2018

<sup>1</sup> Shares awarded does not include dividend equivalents

<sup>2</sup> Includes dividend equivalents

<sup>3</sup> Represents year in which authorized performance and market-based shares will fully vest if they had been granted during 2017, 2016, and 2015, respectively.

A summary of the status of TSYS' performance- and market-based nonvested shares as of December 31, 2017, 2016 and 2015 and changes during those periods are presented below:

(in thousands, except per share data)	2017		2016		2015	
	Shares <sup>1</sup>	Weighted Average Grant Date Fair Value	Shares <sup>1</sup>	Weighted Average Grant Date Fair Value	Shares <sup>1</sup>	Weighted Average Grant Date Fair Value
Performance- and market-based nonvested shares						
Outstanding at beginning of year	982	\$ 33.43	918	\$ 31.19	766	\$ 25.86
Granted	618	52.48	540	45.91	384	36.84
Vested	(621)	14.85	(140)	37.91	(241)	22.92
Forfeited/canceled/adjusted	(174)	46.98	(336)	37.70	9	22.20
Outstanding at end of year	805	\$ 45.41	982	\$ 33.43	918	\$ 31.19

<sup>1</sup> Includes dividend equivalents

## Stock Option Awards

Stock options generally become exercisable in three equal annual installments on the anniversaries of the date of grant and expire ten years from the date of grant. The required service period for retirement eligible employees is typically 12 or 18 months. For retirement eligible employees who retire prior to completing this required service period, the options vest on a pro-rata basis based upon the number of months employed during the full service period. For retirement eligible employees who retire after the required 18-month service period, the options become fully vested upon retirement. For retirement eligible employees who retire after the required 12-month service period, the option holder is deemed to have continued employment through the end of the vesting period and the options continue to vest in accordance with their terms.

During 2017, 2016 and 2015, the Company granted stock options to key TSYS executive officers and non-management members of its Board of Directors. The grants to key TSYS executive officers were issued for services to be provided in the future and vest over a period of three years. The grants to the Board of Directors were fully vested on the date of grant. The weighted average fair value of the options granted was estimated on the date of grant using the Black-Scholes-Merton option-pricing model.

The following table summarizes the weighted average assumptions, and the weighted average fair value of the options:

	2017	2016	2015
Number of options granted	<b>550,527</b>	687,685	613,473
Weighted average exercise price	<b>\$ 54.97</b>	47.01	\$ 39.01
Risk-free interest rate	<b>1.78 %</b>	1.24 %	1.73 %
Expected volatility	<b>21.72 %</b>	21.53 %	20.80 %
Expected term (years)	<b>4.6</b>	4.5	6.3
Dividend yield	<b>0.73 %</b>	0.86 %	1.04 %
Weighted average fair value	<b>\$ 10.85</b>	8.50	\$ 8.27

A summary of TSYS' stock option activity as of December 31, 2017, 2016 and 2015, and changes during the years ended on those dates is presented below:

	2017		2016		2015	
	Options	Weighted Average Exercise Price	Options	Weighted Average Exercise Price	Options	Weighted Average Exercise Price
Options: <i>(in thousands, except per share data)</i>						
Outstanding at beginning of year	<b>2,996</b>	<b>\$ 32.78</b>	2,887	\$ 28.07	4,892	\$ 23.83
Granted	<b>551</b>	<b>54.97</b>	688	47.01	613	39.01
Exercised	<b>(730)</b>	<b>30.05</b>	(500)	23.43	(2,586)	22.68
Forfeited/canceled	<b>(122)</b>	<b>52.76</b>	(79)	43.49	(32)	20.79
Outstanding at end of year	<b>2,695</b>	<b>\$ 37.15</b>	2,996	\$ 32.78	2,887	\$ 28.07
Options exercisable at year-end	<b>1,758</b>	<b>\$ 31.00</b>	1,877	\$ 28.45	1,439	\$ 25.17
Weighted average fair value of options granted during the year		<b>\$ 10.85</b>		\$ 8.50		\$ 8.27

As of December 31, 2017 the average remaining contractual life and intrinsic value of TSYS' outstanding and exercisable stock options were as follows:

	Outstanding	Exercisable
Average remaining contractual life (in years)	6.9	6.1
Aggregate intrinsic value (in thousands)	\$ 112,964	84,572

## Shares Issued for Options Exercised

During 2017, 2016 and 2015, employees of the Company exercised options for shares of TSYS common stock that were issued from treasury. The table below summarizes these stock option exercises by year:

<i>(in thousands)</i>	<b>Options Exercised and Issued from Treasury</b>	<b>Intrinsic Value</b>
<b>2017</b>	<b>730</b>	<b>\$ 23,629</b>
2016	500	12,984
2015	2,586	67,702

For awards granted before January 1, 2006 that were not fully vested on January 1, 2006, the Company recorded the tax benefits from the exercise of stock options as increases to the "Additional paid-in capital" line item of the Consolidated Balance Sheets. Through December 31, 2016, if the Company recognized tax benefits, the Company recorded these tax benefits from share-based compensation costs as cash inflows in the financing section and cash outflows in the operating section in the Consolidated Statement of Cash Flows. The Company elected to use the short-cut method to calculate its historical pool of windfall tax benefits. As discussed in Note 1, the Company adopted ASU 2016-09 effective January 1, 2017 on a prospective basis.

As of December 31, 2017, there was approximately \$2.9 million of total unrecognized compensation cost related to TSYS stock options that is expected to be recognized over a remaining weighted average period of 1.6 years.

## Note 18 Treasury Stock

The following table summarizes shares held as treasury stock and their related carrying value as of December 31:

<i>(in thousands)</i>	<b>Number of Treasury Shares</b>	<b>Treasury Shares Cost</b>
<b>2017</b>	<b>21,862</b>	<b>\$ 909,960</b>
2016	19,314	646,047
2015	19,988	641,664

## Stock Repurchase Plan

In April 2010, TSYS announced a stock repurchase plan to purchase up to 10 million shares of TSYS stock. The shares may be purchased from time to time over the next two years at prices considered attractive to the Company. By January 2014, the TSYS Board had approved several increases in the number of shares that could be repurchased under its share repurchase plan to up to 28 million shares of TSYS stock. The expiration date of the plan was extended to April 30, 2015. In January 2015, TSYS announced that its Board had approved a new stock repurchase plan to purchase up to 20 million shares of TSYS stock. The shares may be purchased from time to time at prices considered appropriate. There is no expiration date for the plan. The previous plan was terminated.

The table below summarizes these repurchases by year:

<i>(in thousands, except per share data)</i>	<b>Total Number of Shares Purchased</b>	<b>Average Price Paid per Share</b>	<b>Repurchased Shares Cost</b>
<b>2017</b>	<b>3,850</b>	<b>\$ 73.41</b>	<b>\$ 282,645</b>
2016	500	48.57	24,287
2015	5,150	47.01	242,085



The following table sets forth information regarding the Company's purchases of its common stock on a monthly basis during the three months ended December 31, 2017:

<i>(in thousands, except per share data)</i>	Total Number of Shares Purchased	Average Price Paid per Share <sup>1</sup>	Total Number of Cumulative shares Purchased as Part of Publicly announced Plans or Programs <sup>2</sup>	Maximum Number of Shares That May Yet Be Purchased Under the Plans or Programs <sup>2</sup>
October 2017	300	\$ 71.26	6,350	13,650
November 2017	1,500	73.05	7,850	12,150
December 2017	1,667 <sup>1</sup>	75.22	9,500	10,500
Total	<u>3,467<sup>3</sup></u>	<u>\$ 73.41</u>		

<sup>1</sup> Denotes a total of 16,837 shares (not rounded) in December withheld for payment of taxes.

<sup>2</sup> In January 2015, TSYS' Board of Directors approved a stock repurchase plan to repurchase up to 20 million shares of TSYS stock. The shares may be purchased from time to time at prices considered appropriate. There is no expiration date for the plan.

<sup>3</sup> Total number of shares purchased amounts may not total due to rounding.

### Treasury Shares

In 2008, the Compensation Committee approved "share withholding for taxes" for all employee nonvested awards, and also for employee stock options under specified circumstances. The dollar amount of the income tax liability from each exercise is converted into TSYS shares and withheld at the statutory minimum. The shares are added to the treasury account and TSYS remits funds to the Internal Revenue Service to settle the tax liability. During 2017 and 2016, the Company acquired 20,875 shares for approximately \$1.6 million and acquired 144,839 shares for approximately \$6.0 million, respectively, as a result of share withholding for taxes.

### Note 19 Other Comprehensive Income (Loss)

Comprehensive income (loss) for TSYS consists of net income, cumulative foreign currency translation adjustments, unrealized gains on available for sale securities and the recognition of an overfunded or underfunded status of a defined benefit postretirement plan recorded as a component of shareholders' equity. The income tax effects allocated to and the cumulative balance of each component of accumulated other comprehensive income (AOCI) (loss) are as follows:

<i>(in thousands)</i>	Beginning Balance	Pretax Amount	Tax Effect	Net-of-tax Amount	Ending Balance
As of December 31, 2014	\$ 3,749	(17,280)	(1,605)	(15,675)	\$ (11,926)
Foreign currency translation adjustments	\$ (13,592)	(22,997)	(1,548)	(21,449)	\$ (35,041)
Transfer from noncontrolling interest (NCI)	28	-	-	-	28
Gain on available for sale securities	1,105	2,177	779	1,398	2,503
Change in AOCI related to postretirement healthcare plans	533	(2,449)	(882)	(1,567)	(1,034)
As of December 31, 2015	\$ (11,926)	(23,269)	(1,651)	(21,618)	\$ (33,544)
Foreign currency translation adjustments	\$ (35,041)	(36,341)	(5,872)	(30,469)	\$ (65,510)
Transfer from NCI	28	-	-	-	28
Gain on available for sale securities	2,503	11,394	4,035	7,359	9,862
Change in AOCI related to postretirement healthcare plans	(1,034)	775	279	496	(538)
As of December 31, 2016	\$ (33,544)	(24,172)	(1,558)	(22,614)	\$ (56,158)
<b>Foreign currency translation adjustments</b>	<b>\$ (65,510)</b>	<b>24,794</b>	<b>2,776</b>	<b>22,018</b>	<b>\$ (43,492)</b>
<b>Transfer from NCI</b>	<b>28</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>28</b>
<b>Loss on available for sale securities</b>	<b>9,862</b>	<b>(2,050)</b>	<b>(634)</b>	<b>(1,416)</b>	<b>8,446</b>
<b>Change in AOCI related to postretirement healthcare plans</b>	<b>(538)</b>	<b>(682)</b>	<b>(90)</b>	<b>(592)</b>	<b>(1,130)</b>
<b>As of December 31, 2017</b>	<b>\$ (56,158)</b>	<b>22,062</b>	<b>2,052</b>	<b>20,010</b>	<b>\$ (36,148)</b>

Consistent with its overall strategy of pursuing international investment opportunities, TSYS adopted the permanent reinvestment exception under GAAP, with respect to future earnings of certain foreign subsidiaries. Its decision to

permanently reinvest foreign earnings offshore means TSYS will no longer allocate taxes to foreign currency translation adjustments associated with these foreign subsidiaries accumulated in other comprehensive income.

## Note 20 Segment Reporting, including Geographic Area Data and Major Customers

TSYS provides global payment processing and other services to card-issuing and merchant acquiring institutions in the United States and internationally through online accounting and electronic payment processing systems. Corporate expenses, such as finance, legal, human resources, mergers and acquisitions and investor relations are categorized as Corporate Administration and Other.

In the first quarter of 2017, the Company combined the North America Services and International Services segments for purposes of segment reporting into the new Issuer Solutions segment, since they provide similar services to similar customers and to reflect the manner in which decisions on allocation of resources are made. As a result, beginning in 2017, the Company reports its financial performance based on three operating segments - Issuer Solutions, Merchant Solutions and Netspend. All prior periods have been restated to conform to the new presentation.

In April 2016, TSYS completed its acquisition of TransFirst which is part of the Merchant Solutions segment and its results are included in the following tables. Refer to Note 22 for more information on acquisitions.

Issuer Solutions includes electronic payment processing services and other services provided from within the North America region and internationally. Merchant Solutions includes electronic processing and other services provided to merchants and merchant acquirers. The Netspend segment provides GPR prepaid debit and payroll cards, demand deposit accounts and other financial service solutions to the underbanked and other consumers and businesses in the United States.

At TSYS, the chief operating decision maker (CODM) is a group consisting of Senior Executive Management. The information utilized by the CODM consists of the financial statements and the main metrics monitored are revenue growth and growth in profitability.

TSYS' operating segments share certain resources, such as information technology support, that TSYS allocates based on various metrics depending on the nature of the service.

Operating Segments (in thousands)	Years Ended December 31,		
	2017	2016	2015
Adjusted operating income by segment:			
Issuer Solutions (a)	\$ 574,580	525,025	489,151
Merchant Solutions (b)	391,466	307,595	150,225
Netspend (c)	182,082	160,371	137,837
Corporate Administration and Other	(148,564)	(135,996)	(109,036)
Adjusted segment operating income <sup>1</sup> (d)	999,564	856,995	668,177
Less:			
Share-based compensation	42,409	43,728	41,549
TransFirst and Cayan M&A and integration expenses <sup>2</sup>	13,367	28,176	-
Litigation, claims, judgments or settlements	1,947	21,719	-
Acquisition intangible amortization	207,797	189,990	92,521
Operating income	734,044	573,382	534,107
Nonoperating expenses, net	(116,482)	(112,350)	(40,543)
Income before income taxes and equity in income of equity investments	\$ 617,562	461,032	493,564
Net revenue by segment:			
Issuer Solutions (e)	\$ 1,594,959	1,515,462	1,473,914
Merchant Solutions (f)	1,103,682	898,533	474,040
Netspend (g)	746,870	663,579	580,377
Segment net revenue	3,445,511	3,077,574	2,528,331
Less: intersegment revenues	45,179	35,698	28,982
Net revenue <sup>3</sup> (h)	3,400,332	3,041,876	2,499,349
Add: reimbursable items, interchange and payment network fees	1,527,633	1,128,201	280,192
Total revenues	\$ 4,927,965	4,170,077	2,779,541
Adjusted segment operating margin on net revenue:			
Issuer Solutions (a)/(e)	36.0%	34.6%	33.2%
Merchant Solutions (b)/(f)	35.5%	34.2%	31.7%
Netspend (c)/(g)	24.4%	24.2%	23.7%
Adjusted segment operating margin on net revenue (d)/(h)	29.4%	28.2%	26.7%

<sup>1</sup> Adjusted segment operating income excludes acquisition intangible amortization, TransFirst and Cayan M&A and integration expenses, share-based compensation and expenses associated with Corporate Administration and Other.

<sup>2</sup> Excludes share-based compensation

<sup>3</sup> Net revenue is total revenues less reimbursable items (such as postage), as well as, merchant acquiring interchange and payment network fees charged by the card associations or payment networks that are recorded by TSYS as expense. Adjusted segment operating income excludes acquisition intangible amortization, TransFirst and Cayan M&A expenses, share-based compensation and expenses associated with Corporate Administration and Other.

The following table presents the Company's depreciation expense by segment:

Operating Segments (in thousands)	Years Ended December 31,		
	2017	2016	2015
Depreciation and amortization:			
Issuer Solutions	\$ 147,914	141,309	134,436
Merchant Solutions	29,477	25,553	18,268
Netspend	15,838	13,133	10,686
Segment depreciation and amortization	193,229	179,995	163,390
Acquisition intangible amortization	207,797	189,990	92,521
Corporate Administration and Other	4,880	3,561	2,353
Total depreciation and amortization	\$ 405,906	373,546	258,264

The following table presents the Company's total assets by segment:

(in thousands)	As of December 31,	
	2017	2016
Issuer Solutions	\$ 5,735,195	5,667,280
Merchant Solutions	3,136,395	3,295,509
Netspend	1,418,644	1,474,595
Intersegment assets	(3,958,545)	(4,071,207)
Total assets	\$ 6,331,689	6,366,177

The Company maintains property and equipment, net of accumulated depreciation and amortization, in the following geographic areas:

(in thousands)	As of	
	December 31, 2017	December 31, 2016
United States	\$ 273,690	236,913
Europe	43,586	38,866
Other	7,942	6,566
Total	\$ 325,218	282,345

The following tables reconcile geographic revenues to external revenues by operating segment based on the domicile of the Company's customers for the years ended December 31:

(in thousands)	2017				
	Issuer Solutions	Merchant Solutions	Netspend	Total	Percentage of Revenues
United States	\$ 1,051,292	2,428,327	745,235	\$ 4,224,854	85.7 %
Europe <sup>1</sup>	320,400	284	-	320,684	6.5
Canada <sup>1</sup>	313,674	1,496	-	315,170	6.4
Other <sup>1</sup>	66,102	1,155	-	67,257	1.4
Total	\$ 1,751,468	2,431,262	745,235	\$ 4,927,965	100.0 %

(in thousands)	2016				
	Issuer Solutions	Merchant Solutions	Netspend	Total	Percentage of Revenues
United States	\$ 1,032,381	1,826,775	660,845	\$ 3,520,001	84.4 %
Europe <sup>1</sup>	306,894	227	-	307,121	7.4
Canada <sup>1</sup>	284,028	705	-	284,733	6.8
Other <sup>1</sup>	57,460	762	-	58,222	1.4
Total	\$ 1,680,763	1,828,469	660,845	\$ 4,170,077	100.0 %

(in thousands)	2015				Percentage of Revenues
	Issuer Solutions	Merchant Solutions	NetSpend	Total	
United States	\$ 981,588	548,079	580,377	\$ 2,110,044	75.9 %
Europe <sup>1</sup>	304,628	22	-	304,650	11.0
Canada <sup>1</sup>	288,728	355	-	289,083	10.4
Other <sup>1</sup>	75,085	679	-	75,764	2.7
Total	\$ 1,650,029	549,135	580,377	\$ 2,779,541	100.0 %

<sup>1</sup> Certain of these revenues are impacted by movements in foreign currency exchange rates.

**MAJOR CUSTOMER:** For the years ended December 31, 2017, 2016 and 2015, the Company had no major customers.

## Note 21 Supplemental Cash Flow Information

### *Nonvested Share Awards*

The Company has issued shares of TSYS common stock to certain key employees and non-management members of its Board of Directors. The grants to certain key employees were issued in the form of nonvested stock bonus awards for services to be provided in the future by such officers and employees. The grants to the Board of Directors were fully vested on the date of grant. Refer to Note 18 for more information on nonvested share awards.

### *Equipment Acquired Under Capital Lease Obligations and Software Acquired Under License Agreements*

The Company acquired computer equipment under capital leases and software under license agreements in the amount of \$40.8 million, \$1.8 million and \$4.1 million in 2017, 2016 and 2015, respectively.

### *Software Acquired Under Direct Financing*

The Company did not acquire any software under direct financing in 2017 or 2016. The Company acquired software under direct financing in the amount of \$30.0 million in 2015. Refer to Note 11 for more information.

## Note 22 Acquisitions

### *Redeemable Noncontrolling Interest - CPAY*

#### 2017

On February 3, 2017, the Company acquired an additional 10% equity interest in CPAY from a privately-owned company for \$70.0 million. This purchase reduced the remaining redeemable noncontrolling interest in CPAY to 15% of its total outstanding equity and extended the put call arrangement until April 2018. The transaction resulted in a decrease to noncontrolling interest of \$9.8 million and a decrease to additional paid-in-capital of \$60.2 million

### *TransFirst*

#### 2017

In 2017, the Company decreased the Merchant Solutions goodwill due to deferred tax adjustments of \$12.1 million and the write-off of a note receivable of \$727,000 on the opening balance sheet of TransFirst.

#### 2016

On April 1, 2016, the Company acquired all of the outstanding capital stock of TransFirst for an aggregate purchase price of \$2.35 billion in cash as of the closing, which was subject to certain working capital and other adjustments, as described in the Purchase Agreement. TransFirst previously operated as a privately held company, under the ownership of Vista Equity Partners. The results of the newly acquired business are being reported by TSYS as part of the Merchant Solutions segment.

The Company funded the cash consideration and the payment of transaction related expenses through a combination of cash-on-hand and proceeds from debt financings, including proceeds drawn under the Company's 2016 Credit Agreement and the proceeds from the issuance of the 2016 Notes, which together included proceeds of approximately \$2.35 billion.

The goodwill amount of \$1.7 billion arising from the acquisition is primarily attributable to the expansion of the Merchant Solutions Segment's customer base, differentiated distribution channels and economies of scale expected from combining the operations of TSYS and TransFirst. All of the goodwill was assigned to TSYS' Merchant Solutions segment. The goodwill recognized is not expected to be deductible for income tax purposes.

The following table summarizes the consideration paid for TransFirst and the initially recognized amounts of the identifiable assets acquired and liabilities assumed on April 1, 2016 (the acquisition date).

<i>(in thousands)</i>	
<b>Consideration</b>	
Cash	\$ 2,351,400
Fair value of total consideration transferred	<u>\$ 2,351,400</u>
<b>Recognized amounts of identifiable assets acquired and liabilities assumed:</b>	
Cash	\$ 5,907
Accounts receivable, net	62,313
Property, equipment and software	12,726
Identifiable intangible assets	814,131
Deferred tax asset	2,244
Other assets	7,509
Deferred tax liability	(224,654)
Other liabilities	(56,864)
Total identifiable net assets	<u>623,312</u>
Goodwill	1,728,088
Total identifiable assets acquired and liabilities assumed	<u>\$ 2,351,400</u>

During 2016, there was a \$55,000 increase in the purchase price due to the working capital adjustment required by the Purchase Agreement. In addition, there was a \$2.0 million decrease in identifiable intangible assets, a \$363,700 increase in liabilities and an \$18.0 million increase in deferred tax liabilities that resulted in a net increase to goodwill of \$20.4 million. The measurement period during which changes in assets, liabilities, equity interests, or items of consideration are subject to adjustment ends up to one year following the acquisition date.

Identifiable intangible assets acquired in the TransFirst acquisition include merchant relationships, channel relationships, current technology, the TransFirst trade name, not-to-compete agreements and a favorable lease. The identifiable intangible assets had no significant estimated residual value. These intangible assets are being amortized over their estimated useful lives of one to ten years based on the pattern of expected future economic benefit, which approximates a straight-line basis over the useful lives of the assets. The fair value of the acquired identifiable intangible assets of \$814.1 million was estimated using the income approach (discounted cash flow and relief from royalty methods) and cost approach. The fair values and useful lives of the identified intangible assets were primarily determined using forecasted cash flows, which included estimates for certain assumptions such as revenues, expenses, attrition rates and royalty rates. The estimated fair value of identifiable intangible assets acquired in the acquisition and the related estimated weighted average useful lives are as follows:

<i>(in millions)</i>	Fair Value	Weighted Average Useful Life <i>(in years)</i>
Merchant relationships	\$ 588.0	7.0
Channel relationships	121.0	10.0
Current technology	72.0	5.0
Trade name	16.0	1.0
Covenants not-to-compete	15.0	3.0
Favorable lease	2.1	5.6
Total acquired identifiable intangible assets	<u>\$ 814.1</u>	<u>7.1</u>

The fair value measurement of the identifiable intangible assets represents Level 2 and Level 3 measurements as defined by GAAP. Key assumptions include (a) cash flow projections based on market participant and internal data, (b) a discount rate of 8.5%, (c) a pre-tax royalty rate range of 1%-3%, (d) attrition rates of 11%-16%, (e) an effective tax rate of 40%, and (f) a terminal value based on a long-term sustainable growth rate of 3%.



In connection with the acquisition, TSYS incurred \$32.3 million in acquisition related costs primarily related to professional, legal and accounting costs, and integration expenses which are recorded in selling, general and administrative expenses and \$9.8 million related to the bridge term loan facility, which is included in interest expense. These costs are expensed as incurred and are included on the income statement for the twelve months ended December 31, 2016. The Company recorded \$1.3 billion of revenue and \$30.0 million of operating income since the acquisition date that is included in the consolidated results through the twelve months ended December 31, 2016 as a result of the TransFirst acquisition.

## *EMEA*

### *2016*

In March 2016, the Company completed the acquisition of the remaining 45% interest in TSYS Managed Services EMEA Limited (EMEA) from Merchants Limited. The Company acquired the outstanding stock from Merchants Limited for approximately £4.2 million, or \$5.9 million, in cash. In connection with the purchase, the Company repaid the outstanding balance of the existing debt between EMEA and Merchants Limited of approximately £2.2 million, or \$3.0 million.

## *Netspend*

### *2017*

In 2017, the Company adjusted the Netspend goodwill due to a tax adjustment of \$1.8 million relating to uncertain tax positions.

### *2016*

In 2016, TSYS adjusted the goodwill associated with the Netspend acquisition by \$584,000 as a result of adjustments to the deferred tax assets acquired in the transaction.

### *2015*

In September 2015, TSYS purchased certain assets for its Netspend segment for \$750,000. The purchase qualifies as a business combination in accordance with GAAP. The Company recorded an acquisition technology intangible asset for the amount of the purchase price. This acquisition intangible asset represents software and is being amortized over a five year life. There were no other material assets included in the purchase. The acquisition included the employment of certain key employees which resulted in the transaction qualifying as a business combination.

In 2015, the Company adjusted goodwill for Netspend to include an additional \$627,000 for a change in deferred taxes associated with the acquisition. For more information, refer to Note 5.

## **Note 23 Collaborative Arrangement**

TSYS has a 45% ownership interest in an enterprise jointly owned with two other entities which operates aircraft for the owners' internal use. The arrangement allows each entity access to the aircraft and each entity pays for its usage of the aircraft. Each quarter, the net operating costs of the enterprise are shared among the owners.

## Note 24 Earnings Per Share

The following table illustrates basic and diluted EPS under the guidance of GAAP for the years ended December 31, 2017, 2016 and 2015:

	2017	2016	2015
	Common Stock	Common Stock	Common Stock
<i>(in thousands, except per share data)</i>			
<b>Basic EPS:</b>			
Net income attributable to TSYS common shareholders	\$ 586,185	319,638	364,044
Less income allocated to nonvested awards	(1,373)	(1,557)	(3,164)
Net income allocated to common stock for EPS calculation (a)	\$ 584,812	318,081	360,880
Average common shares outstanding (b)	183,309	182,744	182,465
Basic EPS (a)/(b)	\$ 3.19	1.74	1.98
<b>Diluted EPS:</b>			
Net income attributable to TSYS common shareholders	\$ 586,185	319,638	364,044
Less income allocated to nonvested awards	(1,373)	(1,557)	(3,148)
Add income allocated to nonvested awards <sup>1</sup>	1,373	1,557	-
Net income allocated to common stock for EPS calculation (c)	\$ 586,185	319,638	360,896
Average common shares outstanding	183,309	182,744	182,465
Increase due to assumed issuance of shares related to common equivalent shares outstanding	1,162	813	1,157
Average nonvested awards <sup>1</sup>	959	891	-
Average common and common equivalent shares outstanding (d)	185,430	184,448	183,622
Diluted EPS (c)/(d)	\$ 3.16	1.73	1.97

<sup>1</sup> In accordance with the diluted EPS guidance under the two-class method, the Company uses the approach—either the treasury stock method or the two-class method assuming a participating security is not exercised— that is more dilutive. In 2017 and 2016, the Company used the two-class method. In 2015, the Company used the treasury stock method.

	2017	2016	2015
	Participating Securities	Participating Securities	Participating Securities
<i>(in thousands, except per share data)</i>			
<b>Basic EPS:</b>			
Net income allocated to nonvested awards (a)	\$ 1,373	1,557	3,164
Nonvested awards (b)	435	911	1,617
Basic EPS (a)/(b)	\$ 3.16	1.71	1.96
<b>Diluted EPS:</b>			
Net income allocated to nonvested awards (c)	\$ 1,366	1,552	3,148
Average common and common equivalent shares outstanding (d)	435	911	1,617
Diluted EPS (c)/(d)	\$ 3.14	1.70	1.95

The diluted EPS calculation excludes stock options and nonvested awards that are exercisable into 0.3 million, 0.4 million and 0.6 million common shares for the years ended December 31, 2017, 2016 and 2015, respectively, because their inclusion would have been anti-dilutive.

## Note 25 Subsequent Events

### CFPB Finalizes Changes to Prepaid Accounts Rule

On January 25, 2018, the Consumer Financial Protection Bureau (the CFPB) announced that it has finalized updates to its 2016 prepaid rule. The CFPB's 2016 prepaid rule put in place requirements for treatment of funds on lost or stolen cards, error resolution and investigation, upfront fee disclosures, access to account information, and overdraft features if offered in conjunction with prepaid accounts. The changes announced by the CFPB adjust requirements for resolving errors on unregistered accounts, provide greater flexibility for credit cards linked to digital wallets, and extend the effective date of the rule by one year to April 2019.

## *Acquisition of Cayan*

On December 18, 2017, TSYS announced it entered into an agreement to acquire Cayan, a payment technology company focused on integrated payment solutions and merchant acquiring, in an all cash transaction valued at approximately \$1.05 billion. On January 11, 2018, the Company completed the acquisition of Cayan. The Company funded the acquisition through a combination of cash-on-hand and proceeds from borrowings, including the credit agreement discussed below.

### *Term Loan Facility*

On January 10, 2018, TSYS entered into a Credit Agreement (the "Credit Agreement") with Bank of America, N.A. as Administrative Agent and other lenders party thereto from time to time. The Credit Agreement provides the Company with a \$450 million two-year term loan facility (the "Term Loan Facility"). The Term Loan Facility was used to finance, in part, the Company's acquisition of Cayan.

Borrowings under the Credit Agreement will accrue interest at the base rate (as defined in the Credit Agreement) or, for certain euro-denominated borrowings, the London Interbank Offered Rate ("LIBOR"), in each case plus a margin based on the Company's corporate credit ratings. The applicable margin for loans bearing interest based on LIBOR ranges from 1.000% to 1.750%. The applicable margin for loans bearing interest based on the base rate ranges from 0.000% to 0.750%.

The Credit Agreement contains customary covenants regarding, among other matters, the maintenance of insurance, the preservation and maintenance of the Company's corporate existence, material compliance with laws and the payment of taxes and other material obligations. The Credit Agreement also contains financial covenants requiring the maintenance as of the end of each fiscal quarter of (i) a minimum fixed charge coverage ratio of 2.5 to 1.0 and (ii) a maximum consolidated leverage ratio of 3.5 to 1.0, which may be increased upon the occurrence of certain events (including the consummation of the acquisition of Cayan).

Management performed an evaluation of the Company's activity as of the date these audited financial statements were issued and has concluded that, other than as set forth above, there are no significant events requiring disclosure.

## Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors  
Total System Services, Inc.:

### *Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting*

We have audited the accompanying consolidated balance sheets of Total System Services, Inc. and subsidiaries (the Company) as of December 31, 2017 and 2016, the related consolidated statements of income, comprehensive income, cash flows and changes in equity for each of the years in the three-year period ended December 31, 2017, and the related notes and financial statement schedule (collectively, the “consolidated financial statements”). We also have audited the Company’s internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2017, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

### *Basis for Opinions*

The Company’s management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company’s consolidated financial statements and an opinion on the Company’s internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

### *Definition and Limitations of Internal Control Over Financial Reporting*

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/KPMG LLP

We have served as the Company’s auditor since 1983.

Atlanta, Georgia  
February 23, 2018

# Management's Report on Internal Control Over Financial Reporting

The management of Total System Services, Inc. (the Company) is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934. The Company maintains accounting and internal control systems which are intended to provide reasonable assurance that assets are safeguarded against loss from unauthorized use or disposition, transactions are executed in accordance with management's authorization and accounting records are reliable for preparing financial statements in accordance with accounting principles generally accepted in the United States.

Internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives because of its inherent limitations. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper management override. Because of such limitations, there is a risk that material misstatements may not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process. Therefore, it is possible to design into the process safeguards to reduce, though not eliminate, risk.

The Company's management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2017.

Based on our assessment, management believes that, as of December 31, 2017, the Company's internal control over financial reporting is effective based on those criteria set forth by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission in *Internal Control — Integrated Framework (2013)*.

KPMG LLP, the independent registered public accounting firm who audited the Company's consolidated financial statements, has issued an attestation report on the effectiveness of internal control over financial reporting as of December 31, 2017 that appears on the preceding page.



M. Troy Woods  
Chairman, President & Chief Executive Officer



Paul M. Todd  
Senior Executive Vice President &  
Chief Financial Officer



## Quarterly Financial Data (Unaudited), Stock Price, Dividend Information

TSYS' common stock trades on the New York Stock Exchange (NYSE) under the symbol "TSS." Price and volume information appears under the abbreviation "TotlSysSvc" in NYSE daily stock quotation listings. As of February 16, 2018, there were 17,430 holders of record of TSYS common stock, some of whom are holders in nominee name for the benefit of different shareholders.

The 2017 fourth quarter dividend of \$0.13 per share was declared on December 11, 2017 and was paid on January 2, 2018, to shareholders of record on December 21, 2017. The 2016 fourth quarter dividend of \$0.10 per share was declared on December 2, 2016, and was paid January 3, 2017, to shareholders of record on December 15, 2016. Total dividends declared in 2017 and in 2016 amounted to \$84.4 million and \$73.5 million, respectively. It is the present intention of the Board of Directors of TSYS to continue to pay cash dividends on its common stock.

Presented here is a summary of the unaudited quarterly financial data for the years ended December 31, 2017 and 2016.

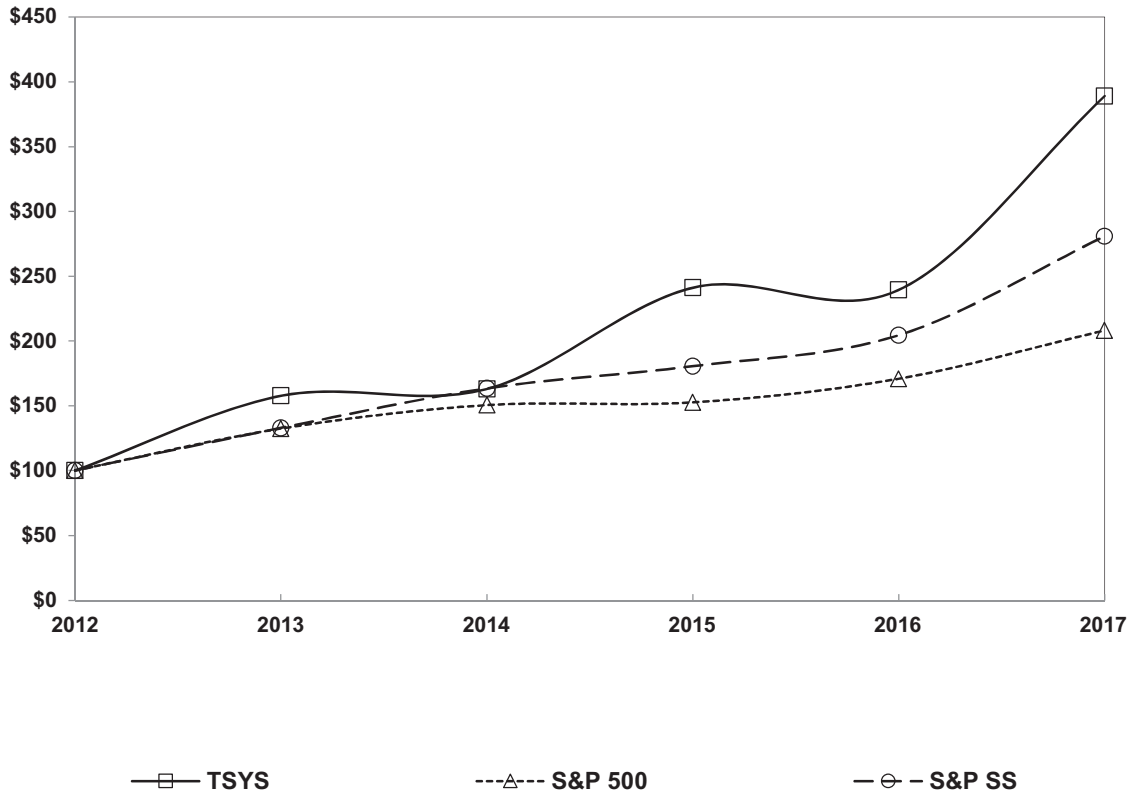
<i>(in thousands, except per share data)</i>	<u>First Quarter</u>	<u>Second Quarter</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>
<b>2017 Revenues</b>	<b>\$ 1,184,725</b>	<b>1,222,375</b>	<b>1,247,576</b>	<b>1,273,289</b>
Cost of services	861,856	877,887	898,471	939,106
<b>Operating income</b>	<b>167,183</b>	<b>193,248</b>	<b>199,692</b>	<b>173,921</b>
<b>Net income attributable to TSYS common shareholders</b>	<b>105,868</b>	<b>115,014</b>	<b>123,095</b>	<b>242,208</b>
<b>Basic earnings per share (EPS) attributable to TSYS common shareholders</b>	<b>0.58</b>	<b>0.62</b>	<b>0.67</b>	<b>1.33</b>
<b>Diluted EPS attributable to TSYS common shareholders</b>	<b>0.57</b>	<b>0.62</b>	<b>0.66</b>	<b>1.31</b>
<b>Cash dividends declared</b>	<b>0.10</b>	<b>0.10</b>	<b>0.13</b>	<b>0.13</b>
<b>Stock prices:</b>				
High	55.48	60.64	70.62	80.51
Low	49.69	51.88	57.53	65.44
Close	53.46	58.25	65.50	79.09
<b>2016 Revenues</b>	<b>\$ 739,378</b>	<b>1,151,587</b>	<b>1,146,889</b>	<b>1,132,224</b>
Cost of services	484,507	841,923	840,301	826,331
Operating income	151,687	135,821	155,327	130,547
Net income attributable to TSYS common shareholders	90,628	69,707	85,352	73,950
Basic EPS attributable to TSYS common shareholders	0.49	0.38	0.46	0.40
Diluted EPS attributable to TSYS common shareholders	0.49	0.38	0.46	0.40
Cash dividends declared	0.10	0.10	0.10	0.10
<b>Stock prices:</b>				
High	48.55	54.81	56.43	51.61
Low	37.96	47.90	46.58	46.77
Close	47.58	48.50	47.15	49.03

## STOCK PERFORMANCE GRAPH

The following graph compares the yearly percentage change in cumulative shareholder return on TSYS stock with the cumulative total return of the Standard & Poor's 500 Index and the Standard & Poor's Systems Software Index for the last five fiscal years (assuming a \$100 investment on December 31, 2012 and reinvestment of all dividends).

### COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN

Among Total System Services, Inc., the S&P 500 Index  
and the S&P Systems Software Index



	2012	2013	2014	2015	2016	2017
<b>TSYS</b>	\$ 100.00	\$ 157.72	\$ 163.02	\$ 241.19	\$ 239.42	\$ 388.99
<b>S&amp;P 500</b>	\$ 100.00	\$ 132.39	\$ 150.51	\$ 152.59	\$ 170.84	\$ 208.14
<b>S&amp;P SS</b>	\$ 100.00	\$ 132.90	\$ 163.47	\$ 180.59	\$ 204.49	\$ 280.92

## Shareholder INFORMATION

### Corporate Headquarters

TSYS  
One TSYS Way  
P.O. Box 2567  
Columbus, GA 31902-2567  
www.tsys.com

### Stock Trading Information

TSYS common stock is traded as "TSS" on the New York Stock Exchange (NYSE). Price and volume information appear under the abbreviation "TSS" in NYSE daily stock quotation listings.

### Dividend Reinvestment and Direct Stock Purchase Plan

The TSYS Dividend Reinvestment and Direct Stock Purchase Plan ("Plan") provides a comprehensive package of services designed to make investing in TSYS stock easy, convenient and more affordable. You may request information about the Plan over the phone at +1.877.833.6707.

### New Investors

You can join the Plan by making an initial investment of at least \$250.

### TSYS Shareholders

You can participate by submitting a completed enrollment form. If your shares are held in a brokerage account, you must first register some or all of your shares in your name.

### Dividend Reinvestment

You can invest all or a part of your cash dividends to accumulate more shares without paying fees.

### Optional Cash Investments

You can purchase additional shares by investing between \$50 at any one time and \$250,000 in total per calendar year. If you wish, we can withdraw funds automatically from your bank account each month to purchase shares. Purchases are made weekly, or more often if volume dictates. Fees are lower than those typically charged by the financial services industry.

### Safekeeping

You can deposit your certificates with us for safekeeping at no cost to you. You can request a certificate any time at no cost.

### Gifts and Transfers of Shares

You can make gifts or transfers to others. Contact American Stock Transfer & Trust Company, LLC at +1.877.833.6707 or your brokerage firm for more information.

### Sale of Shares

You can sell some or all of your shares when you choose at fees lower than those typically charged by the financial services industry. Shares are sold weekly, or more often if volume dictates.

### Form 10-K

A copy of the company's 2017 Annual Report on Form 10-K, filed with the Securities and Exchange Commission, is available at no charge upon written request to Investor Relations at the address below:

TSYS Investor Relations  
One TSYS Way  
Columbus, GA 31901  
ir@tsys.com

### Annual Shareholders' Meeting

The Annual Meeting of Shareholders will be held on April 26, 2018 at 10 a.m. ET at the TSYS Riverfront Campus Auditorium in Columbus, Georgia.

### Independent Auditors

KPMG LLP, Atlanta, Georgia

### Investor Relations

Analysts, investors and others seeking additional information not available at tsys.com should contact:

Shawn Roberts  
TSYS Investor Relations  
One TSYS Way  
Columbus, GA 31901  
+1.706.644.6081  
shawnroberts@tsys.com

Current shareholders requiring assistance should contact:

American Stock Transfer & Trust Company, LLC  
6201 15th Avenue  
Brooklyn, NY 11219  
+1.877.833.6707  
www.astfinancial.com

## Online ACCESS

### Online Services at tsys.com

You can purchase your initial shares online at tsys.com. TSYS makes it easy and convenient to get current information about your shareholder account any time.

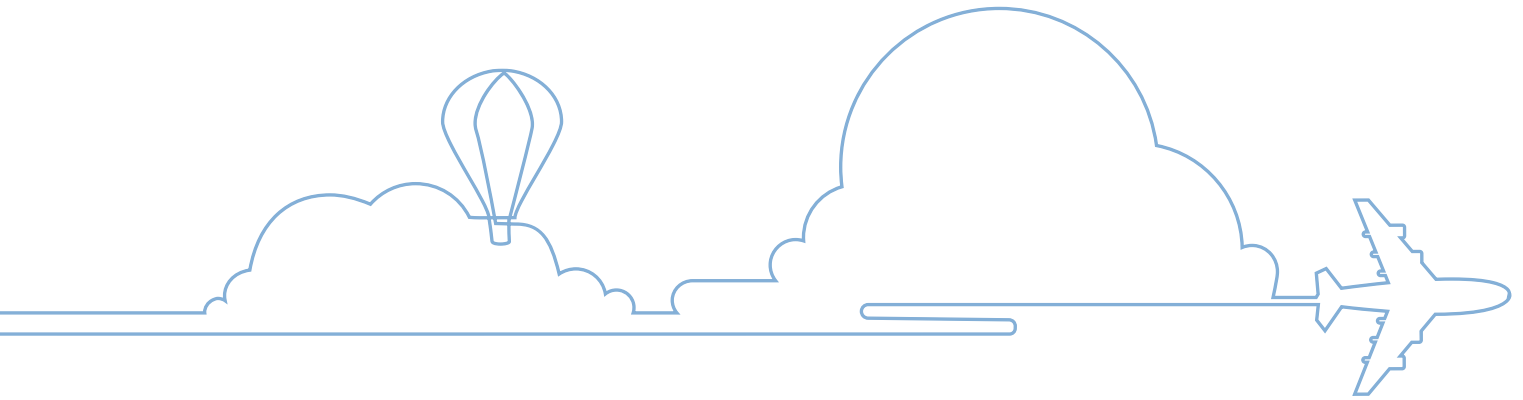
You will have access to:

- View account status
- Purchase or sell shares
- View book-entry information
- Request certificate issuance
- Establish or change your PIN
- View payment history for dividends
- Make address changes
- Obtain a duplicate 1099 tax form
- Request a dividend check replacement
- Receive annual meeting materials electronically

### Cautionary language regarding forward-looking statements:

This annual report to shareholders contains forward-looking statements, which by their nature involve risks and uncertainties. Please refer to TSYS' Annual Report on Form 10-K filed with the Securities and Exchange Commission for information concerning forward-looking statements, under the caption "Safe Harbor Statement," and for a description of certain factors that may cause actual results to differ from goals referred to in this report or contemplated by such statements.

© 2018 Total System Services, Inc.® All rights reserved worldwide. Total System Services, Inc. and TSYS® are federally registered service marks of Total System Services, Inc. in the United States. Total System Services, Inc. and its affiliates own a number of service marks that are registered in the United States and in other countries. All other products and company names are trademarks of their respective companies.



## ABOUT TSYS

TSYS® (NYSE: TSS) is a leading global payments provider, offering seamless, secure and innovative solutions across the payments spectrum – from issuer processing and merchant acquiring to prepaid program management. We succeed because we put people, and their needs, at the heart of every decision. It's an approach we call 'People-Centered Payments®'.

Our headquarters are located in Columbus, Ga., U.S.A., with approximately 12,000 team members and local offices across 13 countries. TSYS generated revenue of \$4.9 billion in 2017, while processing more than 27.8 billion transactions. We are a member of The Civic 50 and were named one of the 2018 World's Most Ethical Companies by Ethisphere magazine. TSYS is a member of the S&P 500 and routinely posts all important information on its website.

**For more, visit [tsys.com](http://tsys.com).**



*For the fourth time in a row, TSYS was named to The Civic 50 in 2017, an annual initiative that identifies and recognizes companies for their commitment to improve the quality of life in the communities where they do business. The survey was conducted by Points of Light, the nation's definitive experts on civic engagement.*



*For the sixth time in seven years, TSYS was named one of the 2018 World's Most Ethical Companies by Ethisphere, a global ethics think tank.*



*TSYS was named as a Top 100 Global Technology leader by Thomson Reuters for 2018. This recognition honors a select group of companies that have demonstrated a commitment to leadership across eight pillars of performance: Financial, Management and Investor Confidence, Risk and Resilience, Legal Compliance, Innovation, People and Social Sustainability, Environmental Impact, and Reputation.*

## NYSE: TSS

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+1.706.649.2310

[www.tsys.com](http://www.tsys.com)

