

## Visa Wants B2B Cross-Border Payments Company

Visa has offered to pay \$252 million (£198 million) to buy Earthport, a U.K.-based provider of cross-border payments, including settlement and foreign exchange services for banks,

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## Card Transactions Projected Worldwide

Global brand general purpose payment cards are projected to generate 882.08 billion purchase transactions in 2027, up 198.4% versus 2017. These card-present and card-not-present purchase

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## Self-Sovereign Identity Using DLT

Distributed ledger technology (DLT) permits replication, sharing, and synchronization of digital data across multiple sites, countries, and/or institutions. And it can operate without any central

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## Pine Labs Merchant Services

Pine Labs' cloud-based services platform connects to 100,000 merchants in India that operate 330,000 POS terminals. The terminals operate on reduced functionality. They simply route

> see p. 6

## IATA Financial Services

The International Air Transport Association (IATA), the trade organization of 290 airlines worldwide representing more than 80% of all air traffic, processed \$480 billion in payments last

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## Fingopay Vein ID Biometric Authentication

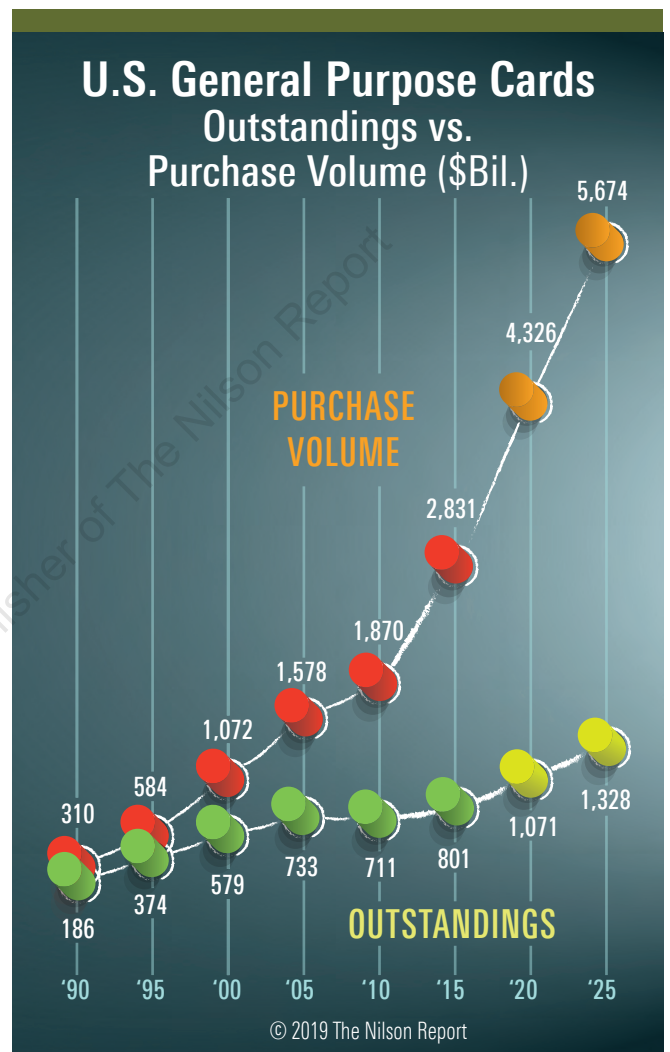
When illuminated by near-infrared light, the patterns found inside any human's veins are more unique than their fingerprints. In addition, they are never impacted by degradation over time

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## Ingenico ePayments in Russia

Gaining access to the largest number of alternative payment methods to Visa, Mastercard, and other global card brands is an increasingly important way acquirers and payment service

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## Credit Card Outstandings in the U.S.

Credit card debt (outstanding receivables) has been the villain in American financial services for so long it can be difficult to remain objective about it. General purpose credit card debt has rebounded from the purge that followed the Great Recession when it fell to \$711.27 billion at the end of 2010. It reached \$979.08 billion at the end of 2018. However, growth in recent years is partially attributable to two factors—increased consumer spending to earn rewards and more commercial card

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# FAST FACTS

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**CROSS RIVER BANK** will provide Stripe with push-to-card payments for workers in ridesharing, food delivery, and other freelance occupations. In December, Cross River secured \$100 million in a venture funding round. *Gilles Gade is CEO at Cross River, ggade@crossriverbank.com, www.crossriver.com.*

**EQUINOX PAYMENTS'** Luxe 8500i and Luxe 6200m POS terminals have achieved EMV end-to-end certification on First Data's processing platform and are expected to be submitted to the PCI Security Standards Council next month for validation. The terminals use software from Acceo Tender Retail. Together, they leverage the First Data payment platform, are PCI 5.x certified, and support First Data TransArmor point-to-point encryption and tokenization. *Rob Hayhow is VP at Equinox Payments, rhayhow@equinoxpayments.com, www.equinoxpayments.com. Joey Vaccaro is VP, Business Development at Acceo, joey.vaccaro@acceo.com, www.acceo.com.*

**PATIENTCO** has added to its SmartFinance platform for medical payments financing options from ClearBalance. SmartFinance offers integrated statement, text, and ebill, prepopulated enrollment fields to streamline self-service enrollment, and targeted messaging based on bill balances. ClearBalance offers include a zero-interest financing program. *Bruce Haupt is CEO at ClearBalance, bhaupt@clearbalance.org, www.clearbalance.org. Alan Nalle is Chief Strategy Officer at PatientCo, alan.nalle@patientco.com, www.patientco.com.*

**SEZZLE'S** Shop Now, Pay Later installment payment app is available to merchants using Salesforce Commerce Cloud. Sezzle integrated with Salesforce via the Link Technology Partnership program. *Paul Paradis is Co-founder at Sezzle, paul.paradis@sezzle.com, www.sezzle.com.*

**ARRIVE** is the new name of ParkWhiz. More than 40 million customers in 230 cities in the U.S. and Canada have access to parking reservations including payment through Arrive, which operates the largest transactional parking network in North America. *Yona Shtern is CEO at Arrive, yona@arrive.com, www.arrive.com.*

**SUNOCO** has launched a new mobile app to support payments at the pump and in-store at its U.S. retail gas stations and C-stores. The app, which serves iOS and Android devices, connects to a digital commerce platform created by Stuzo, which delivers rewards, offers, and digital receipts. Dealers manage the platform through a digital storefront manager. *Gunter Pfau is CEO at Stuzo, gunter.pfau@stuzo.com, www.stuzo.com. Richard Hayes is Director, Electronic Payments at Sunoco, richard.hayes@sunoco.com, www.sunoco.com.*

**UNIONPAY** prepaid cards issued by Global Bank of New York will be marketed by Ecard. U.S. consumers will open an account online and service it via an application downloaded onto their mobile device. Funds can be added online or at retail locations. *Wayne Tsao is CEO at Ecard, wtsao@ecardinc.com, www.ecardinc.com. June Chen is General Manager—Americas at UnionPay Intl, chenjing@unionpayintl.com, www.unionpayintl.com.*

## Conferences & Seminars

### 22nd National Cards and Payments on Campus 2019:

February 3-6, 2019. The Hilton Scottsdale Resort & Villas, Scottsdale, Arizona. Estimated attendance: 125. Cost for the four-day conference is \$800. **Use the coupon code NILSON25OFF for \$25 off your purchase through January 31.** Contact Sarah Yeager at Prodev, (812) 339-6374, syeager@prodevmeetings.com. Register at [www.prodev.com/pcards-registration](http://www.prodev.com/pcards-registration).

### Merchant Payments Ecosystem 2019 (MPE):

February 19-21, 2019. The InterContinental Berlin, Berlin, Germany. Estimated attendance: 1,000+. Cost for the three-day conference is \$2,514 (€2,200). **Subscribers to The Nilson Report will receive a 20% discount. (Use code NLSN\_19MPE.)** Contact Natalia Ivanis, Head of Event Production at Empiria, 421 (917) 802-770, natalia.ivanis@empiriagroup.eu. Register at [www.merchantpaymentsecosystem.com](http://www.merchantpaymentsecosystem.com).

### 2nd Emerging Asia E-Commerce Summit 2019:

February 26-27, 2019. The ParkRoyal Hotel, Yangon, Myanmar. Estimated attendance: 150. Cost for the two-day conference is \$999 for retailers, \$1,499 for solutions providers. **Subscribers to The Nilson Report will receive a 15% discount. (Use code 2EAEC2019-MPNR.)** Contact Jose Carpio, Marketing Manager at Magenta Global, (65) 6846-2366, jose@magenta-global.com.sg. Register at [www.magentaglobalevents.com/2nd-emerging-asia-ecommerce-summit/](http://www.magentaglobalevents.com/2nd-emerging-asia-ecommerce-summit/).

### 10th Mobile Money & Financial Inclusion Summit 2019:

February 26-27, 2018. The ParkRoyal Hotel, Yangon, Myanmar. Estimated attendance: 150. Cost for the two-day conference is \$599 for Myanmar banks, \$1,299 for other banks and MFIs, and \$1,699 for solutions providers. **Subscribers to The Nilson Report will receive a 15% discount. (Use code 10MMFI2019-MPNR.)** Contact Jose Carpio, Marketing Manager at Magenta Global, (65) 6391-2535, jose@magenta-global.com.sg. Register at [www.magentaglobalevents.com/mobile-money-financial-inclusion-summit](http://www.magentaglobalevents.com/mobile-money-financial-inclusion-summit).

**PHILLIPS 66** is collaborating with Honda Developer Studio to enable Honda vehicle owners to reserve a pump and pay for fuel at approximately 7,500 Phillips 66, 76, and Conoco locations through their in-dash infotainment system. *John Barbour is Manager of Payments and Card Services at Phillips 66, john.d.barbour@p66.com, www.phillips66.com.*

**THE NEIMAN MARCUS GROUP** has reached a \$1.5-million settlement with more than 40 state attorneys general over a data breach in January 2014 in which 370,000 credit cards were compromised.

**I2C**, a global provider of payment processing services, has received certification as an issuer processor for UnionPay International card products. *Amir Wain is CEO at i2c, awain@i2cinc.com, www.i2cinc.com. June Chen is General Manager—Americas at UnionPay Intl, chenjing@unionpayintl.com, www.unionpayintl.com.*

**“CATCHING THE DUAL INTERFACE WAVE”** is a white paper produced by CPI Card Group. It highlights factors contributing to increased interest in contactless cards from U.S. issuers. The white paper is available at [www.cpicardgroup.com/wp-content/uploads/2018/04/DI\\_Whitepaper\\_041218\\_Layout\\_V5.pdf](http://www.cpicardgroup.com/wp-content/uploads/2018/04/DI_Whitepaper_041218_Layout_V5.pdf). *Jason Bohrer is SVP & General Manager, Secure Card Solutions, jbohrer@cpicardgroup.com, www.cpicardgroup.com.*

**BOKIS** and **NETS** have renewed their processing agreement for global brand cards issued by banks in Denmark. The previous agreement has been expanded to include card fraud protection services. Financial institution members of Bokis comprise 40% of the Danish payment card market. *Soren Nicolaisen is Director of National Banking at Bokis, sn@ldb.dk, https://www.lopi.dk/. Thomas Jul is Head of Financial & Network Services at Nets, thomas.jul@nets.eu, www.nets.eu.*

**SHIELDPAY'S** instant digital escrow technology allows payment cards to be used securely on peer-to-peer marketplaces and platforms. Shieldpay verifies the identity of all parties. It holds funds, releasing them once all sides agree to the exchange. Visa's CyberSource platform will work with Shieldpay to open new verticals for secure peer-to-peer payments. The partnership will also allow Shieldpay's partners to make use of the Visa Direct push payments service, enabling funds to be disbursed directly to a Visa card in real time in many European markets. *Peter Janes is CEO at Shieldpay, pjanes@shieldpay.com, www.shieldpay.com. Mike Lemberger is SVP Product Solutions for Visa, mlemberg@visa.com, www.visa.com.*

**3C PAYMENT**, a multichannel payment service provider that mostly works with merchants in the hospitality, quick service restaurant, unattended, and retail industries, will offer its customers acceptance for Discover, Diners Club, Pulse, and affiliate network cards in Europe and the Middle East. *Amy Parsons is SVP of Global Acceptance at Discover, amyparsons@discover.com, www.discover.com. Damien Estrade is Head of Business Development at 3C Payment, damien.estrade@3cpayment.com, www.3cpayment.com.*

**FIRST DATA** is offering Clover Mini and Clover Flex POS devices in Argentina in tandem with two software packages—Sistema de Pagos (employee management, customers, and reports) and Punto de Ventas (order, inventory, and fiscal printer). *Gustavo Marin is EVP, Head of Latin America at First Data, gustavo.marin@firstdatacorp.com.br, www.firstdatacorp.com.br.*

**OCEANPAYMENT**, a China-based global payment service provider (PSP), has signed an agreement with Diners Club International to allow merchants around the world to accept Discover, Diners Club, and affiliate network cards. The PSP offers more than 500 payment methods in 200 countries. *Lanny Yan is Co-Founder at Oceanpayment, lanny@oceanpayment.com.cn, www.oceanpayment.com.cn. Amy Parsons is SVP of Global Acceptance at Discover, amyparsons@discover.com, www.discover.com.*

**OMNIO GROUP**, a banking and payment service provider formed by the merger of Payment Cloud Technologies and Tuxedo Money Solutions, has launched the STA Travel Mastercard and digital account in Austria with STA Travel, a student travel specialist. *Ian Clowes is CEO at Omnio, ian.clowes@omnio.global, www.omnio.global.*

**NATIONAL ASSOCIATION OF SAVINGS AND CREDIT UNIONS** in Zambia will issue 1.5 million Mastercard contactless debit cards to its members over the next five years. *Mark Elliott is Division President, South Africa at Mastercard, mark.elliott@mastercard.com, www.mastercard.com.*

**“PSD2 & OPEN APIS: Threats and Opportunities for the Banking Sector—Are We Moving Towards Open Banking?”** is a new white paper produced by Galitt. *Remi Gitzinger is Executive Director, Payment Consulting Business Unit, r.gitzinger@galitt.com, www.galitt.com.*

**PNC BANK CANADA BRANCH** offers Visa brand commercial card products designed to support Canada-based companies and U.S. companies doing business in Canada. Features include cardholder benefits and insurance specific to Canada, the ability to pay rebates in Canadian dollars, and dual language English/French service and support. *David Olsen is Regional President and Principal Officer, Canada Branch at PNC Bank, david.olsen@pnc.com, www.pnc.com.*

## Management Changes

**Liz Oakes** has been appointed Executive Vice President of Market Development, New Payment Platforms at **Mastercard**, [liz.oakes@mastercard.com](mailto:liz.oakes@mastercard.com). **Kurt Bilafer**, formerly at Amazon Pay, has been appointed Executive Vice President, Chief Revenue Officer at **Yapstone**, [kbilafer@yapstone.com](mailto:kbilafer@yapstone.com). **Steven Lee** has been appointed Senior Vice President, Business Development at **Genesis Financial Solutions**, [steven.lee@genesis-fs.com](mailto:steven.lee@genesis-fs.com). **Sasha Orloff** has resigned as CEO at **LendUp**. **Anu Shultes** has been appointed Chief Executive Officer at **LendUp**, [anu.shultes@lendup.com](mailto:anu.shultes@lendup.com). **Vijesh Iyer** has been appointed Interim Chief Executive Officer at **Mission Lane**, [vijesh.iyer@lendup.com](mailto:vijesh.iyer@lendup.com). **Kevin Olsen** has been appointed Senior Vice President of Payment Solutions at **VSoft Corporation**, [kevin.olsen@vsoftcorp.com](mailto:kevin.olsen@vsoftcorp.com). **Fernando Perez** has been appointed Manager of PCI Services at **CompliancePoint**, [fperez@compliancepoint.com](mailto:fperez@compliancepoint.com). **Donald Chesnut** has been appointed Chief Experience Officer at **Mastercard**, [donald.chesnut@mastercard.com](mailto:donald.chesnut@mastercard.com). **Christine Lee** has been appointed Chief Executive Officer at **BillingTree**, [clee@mybillingtree.com](mailto:clee@mybillingtree.com). **Paul Franko** has been appointed Chief Operating Officer at **Payrailz**, [pfranko@payrailz.com](mailto:pfranko@payrailz.com). **Brian Radin** has been appointed President of Prepaid and Payroll Card Business at **Comdata**, [bradin@comdata.com](mailto:bradin@comdata.com).

## Investments & Acquisitions — December 2018

Below is a list of 43 acquisitions, joint ventures, and investment transactions (angel, seed, venture, and other types) that occurred in 12 countries in December 2018. The U.S. led with 19 transactions, followed by 12 in Europe, 6 in Asia, 3 in Africa, 2 in Canada, and 1 in Latin America.

The monetary values of 15 of the transactions were not disclosed. The disclosed values of 28

transactions totaled \$1.22 billion. The \$252-million Visa/Earthport deal was the largest in December. That acquisition was valued slightly higher than the \$250-million investment in software company Plaid, led by Kleiner Perkins.

Prior issues: 1144, 1142, 1140, 1139, 1137, 1135, 1133, 1131, 1129, 1127, 1125, 1123

## Investments & Acquisitions December 2018

Company	Buyer/Investor	Amount (mil.)	Country	Company	Buyer/Investor	Amount (mil.)	Country
<b>B2B PAYMENTS</b>				<b>MERCHANT ACQUIRING (CONTINUED)</b>			
SourceDay	Series A <sup>1</sup>	\$6.5	U.S.	UMS Banking	Celero Commerce <sup>10</sup>	*	U.S.
YayPay	Series A <sup>2</sup>	\$8.4	U.S.	<b>MOBILE PAYMENTS</b>			
<b>BLOCKCHAIN</b>				CityCash	series unknown <sup>11</sup>	*	India
GrainChain	series unknown <sup>3</sup>	\$2.5	U.S.	Springboard Retail	debt financing <sup>12</sup>	\$0.4	U.S.
<b>CARRIER BILLING</b>				UnDosTres	Series A <sup>13</sup>	\$6.5	Mexico
Danal	Boku <sup>4</sup>	\$112.0	So. Korea	Viva Republica (Toss)	Series E <sup>14</sup>	\$80.0	So. Korea
<b>CREDIT BUREAUS</b>				<b>MONEY TRANSFERS</b>			
Compuscan	Experian <sup>4</sup>	*	So. Africa	Earthport	Visa <sup>4</sup>	\$252.0	U.K.
<b>CREDIT CARDS</b>				Monito	Series A <sup>15</sup>	\$2.5	Switzerland
Catella Bank	Avanzia Bank <sup>4</sup>	*	Luxembourg	TransferGo	Series B <sup>16</sup>	\$7.6	U.K.
<b>CRYPTOCURRENCY</b>				<b>PERSONAL FINANCE</b>			
BetterCoins	Coinify <sup>4</sup>	*	Denmark	B-Social	seed funding <sup>5</sup>	\$4.1	U.K.
Bitnomial	venture round <sup>5</sup>	\$7.5	U.S.	Earnin	Series C <sup>17</sup>	\$125.0	U.S.
BlockEQ	Coinsquare <sup>4</sup>	\$8.9	Canada	TotallyMoney	venture round <sup>18</sup>	\$36.9	U.K.
<b>ECOMMERCE</b>				<b>PREPAID PRODUCTS</b>			
Infibeam	Suvidhaa <sup>6</sup>	\$5.4	India	Swych	UAE Exchange <sup>19</sup>	*	U.S.
<b>FOREIGN EXCHANGE</b>				Titres Cadeaux	Natixis <sup>4</sup>	*	France
Devisenwerk	TransferMate <sup>4</sup>	*	Switzerland	<b>PROCESSING</b>			
<b>LENDING</b>				Instant Global Paytech	undisclosed round <sup>20</sup>	\$0.8	India
Cross River Bank	venture round <sup>7</sup>	\$100.0	U.S.	Nordic API Gateway	venture round <sup>21</sup>	\$6.0	Denmark
Jumo	venture round <sup>8</sup>	\$12.5	So. Africa	OpenNode	seed funding <sup>22</sup>	\$1.3	U.S.
MobiKwik	Series E <sup>9</sup>	\$3.8	India	PPRO Financial	private equity round <sup>23</sup>	*	U.K.
<b>LOYALTY</b>				<b>SECURITY</b>			
Outside Networks	PDI <sup>4</sup>	*	U.S.	Pindrop	Series D <sup>24</sup>	\$90.0	U.S.
ReUp	Lightspeed <sup>4</sup>	*	Canada	Switch	angel funding <sup>5</sup>	\$2.0	U.S.
<b>MERCHANT ACQUIRING</b>				<b>SOFTWARE</b>			
Alliance Financial (eXPO)	AppTech <sup>4</sup>	*	U.S.	Flux Systems	Series A <sup>25</sup>	\$7.5	U.K.
Blue Parasol	Priority Technology <sup>4</sup>	*	U.S.	Plaid	Series C <sup>26</sup>	\$250.0	U.S.
Direct Connect	Priority Technology <sup>4</sup>	*	U.S.	Propel	Series A <sup>27</sup>	\$12.8	U.S.
Interpay	Emergent Technology <sup>4</sup>	*	Ghana	ShopKeep	Series E <sup>28</sup>	\$65.0	U.S.

\*Terms not disclosed. <sup>1</sup>Including Silverton Partners. <sup>2</sup>Led by Information Venture Partners. <sup>3</sup>From Medici Ventures. <sup>4</sup>Acquisition. <sup>5</sup>Investors not disclosed.

<sup>6</sup>Purchased 5% equity stake. <sup>7</sup>Including CreditEase Fintech Investment Fund. <sup>8</sup>From Odey Asset Management. <sup>9</sup>Including Net1 UEPS. <sup>10</sup>Purchased undisclosed equity stake. <sup>11</sup>From FINO Paytech. <sup>12</sup>From Lighter Capital. <sup>13</sup>Including InnoCells (Banco Sabadell). <sup>14</sup>Led by Ribbit Capital and Kleiner Perkins. <sup>15</sup>Led by Tamedia.

<sup>16</sup>Led by Vostok Emerging Finance. <sup>17</sup>Including DST Global. <sup>18</sup>Led by Elliott Advisors. <sup>19</sup>Purchased equity from CerraCap Ventures. <sup>20</sup>From Infibeam. <sup>21</sup>From DNB and Danske Bank. <sup>22</sup>Led by Draper Associates. <sup>23</sup>From Northleaf Capital Partners. <sup>24</sup>Led by Vitruvian Partners. <sup>25</sup>Led by e.ventures. <sup>26</sup>Led by Kleiner Perkins. <sup>27</sup>Led by Nyca Partners. <sup>28</sup>Led by Tribeca Venture Partners.

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## MoreFun POS Terminal

The MF919 POS terminal shown here from Fujian MoreFun Electronic Technology features a 5-inch IPS (in-plane switching) color display with 720 x 1280 pixels and a multipoint capacitive touchscreen. It uses the Android 5.1 operating system, which can be updated to Android 7.0. The NFC card reader supports ISO 14443 type A/B, Mifare card, Felica, and qPBOC L1 & L2 standard. Certifications include EMV Level 1 and 2, PCI PTS 5.0, Mastercard Paypass, Visa Paywave, TQM, CE, and FCC. Audio supports voice playing and recording.

reads barcodes and is available with optional 0.3 megapixel resolution. The 5 megapixel autofocus camera on the back comes with an optional flashlight.

The MF919 has built-in GPS that supports A-GPS,



MoreFun shipped its first point-of-sale terminals in 2015. Last year, it shipped more than 2.5 million POS terminals.

Most went to customers in China. MoreFun also shipped more than 2.3 million card reader dongles for smartphones and tablets last year to customers in China and other markets.

Yuki Zhang Ying is International Sales Team Leader at Fujian MoreFun Electronic Technology Co., Ltd. in Fuzhou, Fujian, China, 86 (591) 8820-3260, [yuki@morefun-et.com](mailto:yuki@morefun-et.com), [www.morefun-et.com](http://www.morefun-et.com).

**Also shipped more than 2.3 mil. card reader dongles last year.**

The MF919 includes one micro USB 2.0 port. It has two cameras. The camera on the front

Glonass, and Compass. Its built-in high-speed thermal printer supports graphics printing.

## EMV Solution for Gas Pumps

Merus Capital, a Silicon Valley-based early-stage venture capital firm, has invested \$1 million in Gas



Pos to execute a plan for gas pump upgrade technology that independent retailers need to become EMV-compliant.

Independent gasoline stations account for 55% to 60% of the 120,000 total outlets in the U.S.

EMV regulations call for all gas stations to install chip-reading pumps by October 2020. However, the per-station costs are high.

Replacing automated fuel dispensers (AFDs) can cost \$25,000 to more than \$150,000 for each retail location depending on the number of pumps. Locations owned by gasoline marketers ExxonMobil, Shell, Chevron, etc. can be expected to be EMV-compliant on time.

However, the financial hit on smaller independent retailers can be expected to result in tens of thousands of locations missing the deadline.

Gas Pos offers a POS system integrated with existing hardware and software. It is a hybrid cloud-based service that utilizes a dashboard. All data is gathered at the location and then pushed to the cloud.

There is no capital expenditure for the retailer. Instead, they will pay \$149.95 per month plus 2.5% and 10¢ per transaction.

Gas Pos estimates that 80% to 90% of all independent gasoline retailers are candidates for its products.

**Independents account for 55% to 60% of total outlets in the U.S.**

Currently, Gas Pos is facilitating \$1 million a month in card payments and is growing at 17% month-over-month.

Joshua Smith is CEO at Gas Pos in North Little Rock, Arkansas, (205) 948-7523, [josh.smith@gaspos.co](mailto:josh.smith@gaspos.co), [www.gaspos.co](http://www.gaspos.co).

## JCB QR Code Payments in Asia

JCB cardholders can use their smartphones to scan the QR code displayed at the merchant point of sale to make payments in Japan using the Origami Pay mobile app (see issue #1142). JCB is an investor in Origami. Cardholders in Japan can also make NFC-based Apple Pay contactless mobile payments. Now JCB International has launched an EMV-compliant QR code-based payment service with banks in Taiwan and Vietnam. Contactless payments, including some that are QR code-based, are already used in both countries. Bank SinoPac in Taiwan and Sacombank in Vietnam are the first banks to offer the JCB QR Code Payment service. Both banks issue JCB credit cards and acquire JCB transactions.

SinoPac aims the service at merchants who typically accept only cash, including fish markets,



flower markets, and taxis. It expects to expand its merchant base for QR code payments to more than 3,000 locations. JCB cardholders can also make Apple Pay contactless payments in Taiwan.

In Vietnam, JCB cardholder customers of Sacombank Pay who use the bank's mobile app can choose their JCB card as a source of funds for QR code payments. Sacombank will offer the QR code payment service at more

than 2,000 merchants.

JCB cards are issued in 22 countries and territories. Cards are accepted at more than 33.5 million locations worldwide.

Daisuke Sakurai is Executive Vice President, Business Development at JCB in Tokyo, Japan, 81 (3) 5778-8373, [daihyo.asia@jcb.co.jp](mailto:daihyo.asia@jcb.co.jp), [www.global.jcb/en/](http://www.global.jcb/en/).

## Pine Labs Merchant Services

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transactions to Pine Labs, which then routes them to acquiring banks. Payments can be initiated

sales. When lending to smaller merchants, Pine Labs and partners share the risk. Sixty percent of Pine Labs' clients are Tier 1 merchants.

Those large merchants handle 80% of all card payments in India.

A loyalty-services platform operated by Pine Labs is used by clients including Starbucks. The company also offers a prepaid rewards card called Pine Perks, usable at all Pine Labs' merchants. Clients for this business-to-business product include telecoms.

India experienced growth in debit card transactions in the 17% range last year after the government required two-factor authentication, causing consumer confidence to rise.

Pine Labs' own growth last year included an expansion into Malaysia, where it connects to multiple acquirers. The company

received two funding rounds totaling \$200 million last year. Pine Labs' net after allowing for secondary sales was \$140 million, all of which now sits in the bank.

Expansion plans for 2019 and 2020 include signing merchants in Thailand, Indonesia, and the United Arab Emirates. Within India, where the company already connects to 75% of the country's 80,000 Tier I merchants, Pine Labs will expand by approaching Tier II and Tier III merchants. Many of those smaller merchants will use a mobile app in their smartphones to handle bill payments in addition to purchases

**...connects to 75% of the country's 80,000 Tier I merchants.**

initiated by cards, QR codes, and phone-number billing. Vicky Bindra is CEO at Pine Labs Pvt. Ltd. in Bangalore, India, 91 (180) 0103-9765, [vicky.bindra@pinelabs.com](mailto:vicky.bindra@pinelabs.com), [www.pinelabs.com](http://www.pinelabs.com).



by cards, QR codes, or phone-number billing. Pine Labs also handles mobile payments from apps such as PhonePe and Google Pay when merchants are not directly signed to acceptance deals by the wallet provider.

In addition to payments, Pine Labs' platform also facilitates business loans to merchants and installment loans to cardholders making in-store purchases.

Installment loans are handled by connecting cardholders to credit and debit card issuers that handle all underwriting. Merchant loans are underwritten by Pine Labs and nonbank finance company partners. Pine Labs integrates with a merchant's billing system, which gives a full picture of all

## Citi Rewards+ Credit Card

Every purchase made with the Citi Rewards+ Mastercard credit



card rounds up to the nearest 10 ThankYou Points. This means if cardholders spend \$4 they earn 10 ThankYou Points instead of

4. The no-annual-fee card also gives cardholders 10% of their points back for the first 100,000 ThankYou Points redeemed per year.

Cardholders earn 2 ThankYou Points per \$1 spent at supermarkets and gas stations (on up to \$6,000 in purchases per year) and 1 ThankYou Point per \$1 spent on all other purchases.

Other features of the card include 15,000 ThankYou Points after spending \$1,000 in purchases within the first

three months of opening an account. Those bonus points are redeemable for a prepaid card with \$150 in value. Citi is the second largest U.S. general purpose credit card issuer and the largest issuer of Mastercard credit cards.

The Citi Rewards+ credit card replaces the Citi ThankYou Preferred Card, which has stopped accepting applications.

Chris Fred is Head of Proprietary Products at Citi in New York, (845) 781-6257, [christopher.fred@citi.com](mailto:christopher.fred@citi.com), [www.citi.com](http://www.citi.com).

## Fingopay Vein ID Biometric Authentication

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from working or an accident. It is also true that while fingerprints are very useful for identification, they are not a foolproof biometric for maximum security because they are external and can be replicated and because systems can be spoofed. Vein ID technology can't be spoofed by a bot because a living human being's hemoglobin is required to absorb the infrared light to capture a vein pattern.

Hitachi, the Japan-based technology vendor, developed the ability to read veins for identification, anticipating an opportunity to make money in the

**It takes 200 milliseconds to catch the vein identification.**

medical industry. However, the medical market wasn't as lucrative as originally believed. Hitachi did find a use for vein ID in Japan to secure transactions at 80,000 ATMs in combination with a PIN.

Fingopay in the U.K. believes there is a market for a vein ID system in card payments. It has created mobile and kiosk-based systems for enrollment of cardholders who could link multiple cards to their vein identification to secure transactions. The company also believes retailers could use its technology to replace loyalty cards. Fingopay's system also includes software to manage loyalty and

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FINGOPAY

present offers before the cardholder chooses a payment method.

Dankort, the national debit network in Denmark managed by Nets, tested Fingopay beginning in March 2018 for eight weeks. That test concluded, but most of the 1,000 students participating wanted to continue using the technology. Individual merchants offer it using Fingopay enrollment devices.

Unlike the fingerprint authentication in Apple Pay, which occurs within each iPhone, Fingopay's verification occurs in the cloud. The company says it takes 200 milliseconds to catch the vein identification and 1 second to match it in the cloud and trigger a receipt for a purchase. All vein identification is anonymized. Fingopay does not store any biometrics.

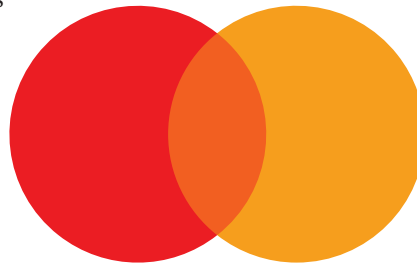
The Fingopay database is parallelized into multiple pools to deliver the quick match. The factors for pools include time of day and merchant location. The company is continuing to invest in refining how it can work at scale.

Intesa Sanpaolo in Brazil and Santander Bank Polska (formerly Bank Zachodni) in Poland will test Fingopay this year. Hitachi offers Fingopay in Japan. Nick Dryden is CEO at Fingopay in London, U.K., 44 (7498) 060-091, [nick@sthaler.com](mailto:nick@sthaler.com), [www.fingopay.com/sthaler](http://www.fingopay.com/sthaler).

## Mastercard Streamlines Corporate Logo

Mastercard is dropping its name from its corporate logo and will use only the interlocking red and yellow circles at acceptance locations in the physical and digital worlds. The interlocking circles have been the central feature of the brand since 1968 when Mastercard was known as Master Charge: the Interbank Card.

In 1979, the wording was simplified to MasterCard—the internally capitalized “C” reflecting a trend that became popular during the ‘70s and ‘80s called camel case and led to producing names like CompuServe, VisiCalc, and NetWare. The Mastercard



brand refresh in 2016 made the “c” lowercase, de-emphasizing the word “card.”

Eliminating the word Mastercard altogether is a further acknowledgment that in coming years the Mastercard network will include an increasing number of consumer and commercial payments initiated not by plastic but by phones, computers, and IoT devices. Also, in a marketplace where a diminishing amount of space is allotted to any single logo, removing a name gives a symbol alone more space to stand out—a strategy that has already worked for brands like Nike, Target, and Apple.

## Self-Sovereign Identity Using DLT

from page 1...

administrator or centralized data storage. A start-up called Evernym took those attributes and created a new model for validating

one-time passwords, or any other means of security commonly found with online transactions. Entities can share different types

U.S., the U.K., Serbia, and Russia, include experts in cryptography, blockchain, digital privacy and trust, and DLT.



of data, including identity information, in a private and decentralized way.

The Sovrin

the identity of individuals, organizations, and devices while preserving privacy and, if required, anonymity. The concept is referred to as self-sovereign identity (SSI). Individuals and organizations maintain control of their identities independent of any intermediary and use SSI to prove any aspect of their identity at any time from any place.

In 2016, Evernym turned over all designs and code to its DLT model for self-sovereign identity to a not-for-profit entity called the Sovrin Foundation, which governs the Sovrin Network based on open source code and open standards.

Any person, organization, or device on the Sovrin Network communicates with others without usernames and passwords,

Foundation is currently comprised of more than 50 businesses called stewards, including IBM, Cisco, Absa, Swisscom, NEC, InfoCert, and DigiCert.

The foundation is actively seeking new participants

worldwide in multiple sectors, including health organizations, banks, nongovernmental organizations, and insurance companies.

U.S.-headquartered Evernym, which has raised \$23 million in funding, now operates as a for-profit company selling digital products and services that leverage the Sovrin Network. The company’s more than 80 employees, who are located in the

Barclaycard, the largest credit card issuer in the U.K. based on outstanding receivables, recently joined Evernym’s 12-month Accelerator Program to test the use of SSI. For payments, particularly ecommerce, SSI offers the promise of considerable reductions in fraud.

### Barclaycard has joined Evernym’s 12-month Accelerator Program.

Other companies in the program include pharmaceutical firm Novartis, the International Red Cross, and Irish Life Assurance. Participants get a set of tools to build their own products and services. They can also connect with the other participants.

Recent proof-of-concept tests on the Sovrin Network have included ticketless airline flight bookings, border crossings without passports, car rentals, processing



of refugees, and governments issuing credentials to citizens.

The provincial governments of Ontario and British Columbia in Canada have used the Sovrin Network to issue credentials to more than 1.4 million businesses to facilitate registrations, permits, and licenses. Alberta Trust Bank

in Canada worked with IBM and Evernym to reduce the time it takes to open an account to less than a minute, down from more than four minutes. Credit unions in the U.S., through their jointly owned blockchain technology company CULedger,

are developing MyCUID using Evernym technology.

Jamie Smith is Strategic Engagement Director at Evernym, Inc. in London, U.K., 44 (754) 537-5945, jamie.smith@evernym.com, www.evernym.com.

## Visa Wants B2B Cross-Border Payments Company

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money transfer companies, and other businesses. Earthport, which is headquartered in London, maintains offices in New York, Miami, Singapore, and Dubai. The company is regulated by the U.K.'s Financial Conduct Authority (FCA). Earthport is

regulated and governed similarly to banks and money transfer companies. It is a member of Swift.

Earthport customers include Xoom, WorldRemit, Japan Post Bank, Azimo, Hyperwallet, and Bank of America Merrill Lynch.

The company positions itself as a less-expensive option than traditional correspondent bank networks participating in moving cross-border business-to-business (B2B) payments.

Earthport maintains local bank partnerships with access to local clearing houses covering 88 countries. It can facilitate payments to 200+ countries and territories.

Earthport has used Ripple's distributed ledger technology in its blockchain-based B2B money transfers since 2015.

Shareholders of Earthport include Oppenheimer Funds, International Finance Corp., Schroeder Investment Management, and Wellington Management. Oppenheimer, Earthport's largest shareholder, has agreed to the acquisition. However, shareholders who account for a collective 7.8% are withholding their approval, hoping there will be a better offer.

### Money Transfer Deals 2018

Company	Buyer/Investor	Amount (mil.)	Country
Airwallex	Series B	\$80.0	Hong Kong
Avenues Payment	ICICI	\$1.3	India
Azimo	Series C	\$20.0	U.K.
Convoy Payments	Currency Fair <sup>1</sup>	*	Hong Kong
Dwolla	*	\$6.9	U.S.
Earthport	Visa <sup>1</sup>	\$252.0	U.K.
Eko India	*	\$1.5	India
Eurogiro	Inpay <sup>1</sup>	*	Denmark
InstaReM	Series C	\$20.0	Singapore
Inward International	Ebix <sup>1</sup>	\$7.4	India
LianLian	*	\$150.0	China
Monito	Series A	\$2.5	Switzerland
PaySend	*	\$20.0	U.K.
Rebtel	Series B	\$8.0	Sweden
Resolut	Series C	\$250.0	U.K.
Satispay	Series B	\$11.6	Italy
Saxo Payments	EQT <sup>1</sup>	\$300.0	Denmark
TransferGo	Series B	\$7.6	U.K.
TransferMate	ING <sup>2</sup>	\$24.4	Ireland
TransferZero	BitPesa <sup>1</sup>	*	Spain
Wallex	seed funding	*	Singapore

\*Not disclosed. <sup>1</sup>Acquisition. <sup>2</sup>Purchased minority stake.

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**Competitors include blockchain-based money transfer companies.**

The Earthport transaction was Visa's second business-to-business acquisition in 2018. In February, it purchased Fraedom, also based in the U.K. Fraedom is a B2B expense management company whose invoice payment feature supports Visa's IntelliLink Spend Management platform for commercial card programs.

Prior issues: 1127, 1122, 1119, 1111

## IATA Financial Services

from page 1...

year through the IATA Financial Settlement System. Those payments included remittances from travel agencies to airlines, payments between airlines, payments by freight forwarders for shipments of cargo, and payments to airports and air navigation providers.

The IATA helps airlines lower payment acceptance costs in multiple ways. The on-time settlement rate of IATA's Billing and Settlement Plan for

**...will be tested in Germany in March 2019 with Deutsche Bank.**

400 participating airlines is 99.999%. The IATA Financial Gateway consolidates different sales payment processes across various distribution channels and networks. IATA EasyPay is a recently launched business-to-business wallet product available to accredited travel agents for the purchase of tickets through IATA's Billing and Settlement Plan.

IATA Pay is the association's latest financial services initiative.

It is aimed at consumers who buy tickets directly from an airline website. Transactions are

direct debits initiated from the consumer's bank account and deposited into the bank account of the airline. IATA Pay will offer



lower costs to airlines versus card payments as well as a higher level of security. Airlines

should also experience faster cashflow and fewer lost sales.

The first IATA Pay ticket purchases took place in December 2018 in the U.K. Cathay Pacific, Scandinavian, and Emirates were among the airlines participating in the test of IATA Pay. Transactions were facilitated by ipagoo, a nonbank payment service provider. Ipagoo is the first nonbank payment service provider that

is a direct participant in Chaps, one of the largest high-value payment systems in the world.

The IATA Pay test was possible under the U.K.'s Open Banking framework that, along with the European Commission's second Payment Services Directive (PSD2), encourages faster and more secure access by consumers to their funds on deposit.

IATA Pay will be tested in Germany in March 2019, with Deutsche Bank acting as the payment initiator. The IATA will compare the bank's service versus ipagoo's to see which kind of third-party provider partner it prefers to support rollout of IATA Pay.

Jose Antonio Rodriguez is Director of Operations, Financial and Distribution Services at the IATA in Geneva, Switzerland, 41 (22) 770-2525, [rodriguez@iata.org](mailto:rodriguez@iata.org), [www.iata.org](http://www.iata.org).

Prior issues: 873, 620

## Ingenico ePayments in Russia

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providers (PSPs) help merchants increase sales outside their native country. To boost sales in Russia, global merchants want access to Mir, the country's domestic-only card program.

Ingenico recently became the first international PSP to offer merchants the opportunity to accept payments from the 47 million Mir cards in circulation as on-us domestic payments, which improves authorization rates. It did so by connecting to acquiring banks in Russia—Sberbank, VTB, Alfa Bank, and Tinkoff Bank. Ingenico reaches those acquirers through

a Russia-based information technology and gateway provider.

Global merchants connect to Ingenico through a single link to reach the four local acquirers.

Ingenico has a routing engine that identifies the Mir card and pushes the transaction to the card-issuing bank, which makes them on-us transactions. That process increases by 2% to 3% the authorization rates for merchants and it lowers per-transaction costs.

Mir cards can only be authorized by a domestic bank. Of the 47 million Mir cards in circulation, more than 30 million have been issued to government

**ingenico**  
**GROUP**

workers. More than 3 million Mir cards are expected to come into circulation each month this year.

Before setting up the link with the domestic gateway provider, Ingenico, which supports more than 500 large global merchants, had been processing global card payments initiated in Russia using non-Russian acquirers to handle authorizations. Other PSPs and acquirers that handle transactions initiated by global brands in Russia do the same. If they want to handle Mir card transactions, they set up a link to individual banks.

Having a payment authorized in Russia by a local acquirer helps global merchants with issues including value-added tax, repatriation of funds remitted locally, and domestic laws regarding storage of personal data. Ingenico focuses on authorizing travel industry, video game, and retail merchants, including China-based marketplaces, interested in reaching Russian consumers.

Mike Goodenough is Head of Strategic Initiatives at Ingenico in Hoofddorp, Netherlands, 31 (0) 6301-58185, [mike.goodenough@ingenico.com](mailto:mike.goodenough@ingenico.com), [www.ingenico.com](http://www.ingenico.com).

## Card Transactions Projected Worldwide

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transactions are generated by consumer and commercial credit, debit, and prepaid cards. Global brands are Visa, Mastercard, UnionPay, American Express, Discover, JCB, and Diners Club.

Not counted in that 882.08 billion figure are transactions generated by more than 60 domestic-only brands that function within single countries. They include Accel, Allatm, ATH, Bancontact/Mister Cash, BankAxept, Banricompras, BC Card, Cartes Bancaires, Dankort, eCash, epal/eftpos, Elo, girocard,

Hipercard, Interac, J-Debit, KNet, Mada, Mir, Multibanco, Nyce, Pagobancomat, PostFinance, Pulse, Redcompra, RuPay, Samsung Card, Shetab, SmartPay, Star, Troy, and others.

Among the global brand cards, those issued in the Asia-Pacific region generated 102.50 billion purchase transactions in 2017, accounting for 34.68% of the worldwide purchase transaction total. This surpassed the United States for

the first time. The Asia-Pacific region is projected to reach 54.03% of the worldwide total by 2027 when purchase transactions are projected to be more than

**Asia-Pacific will account for 54.03% of the world total by 2027.**

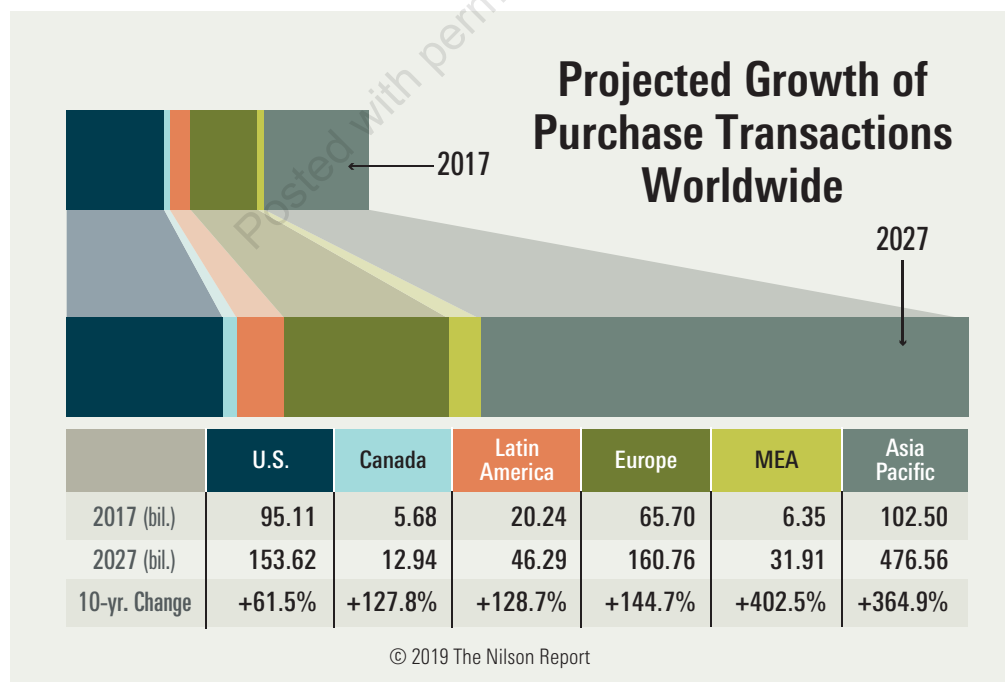
triple those generated by the U.S., reaching 476.56 billion. This includes QR code-based payments made by mobile phones.

Cards issued in the United States generated 95.11 billion purchase transactions in 2017, accounting for 32.18% of the worldwide purchase transaction total. Its market share is projected to drop to 17.42% by 2027, even though the region is expected to have payment card transactions grow to 153.62 billion.

Cards issued in Europe generated 65.70 billion purchase transaction in 2017, or 22.23% of the worldwide total. Europe's share is projected to drop to 18.22% of the worldwide total by 2027, even though the region is projected to reach 160.76 billion card transactions, about 7 billion more than the United States.

Cards issued in Latin America generated 20.24 billion purchase

> see p.12



## Card Transactions Projected Worldwide

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transactions in 2017, a 6.85% share of the worldwide total. This share is projected to drop to 5.25% in 2027 when purchase transactions are projected to reach 46.29 billion.

Cards issued in the Middle East and Africa totaled 6.35 billion in 2017, accounting for 2.15% of the worldwide total. Middle East-Africa is the only region besides the Asia-Pacific region whose share is projected to grow, reaching 3.62% of the 2027

worldwide total when transactions are projected to reach 31.91 billion, including QR code-based mobile phone payments.

Cards issued in Canada generated 5.68 billion purchase transactions in 2017, a 1.92% share of the worldwide total. This share is expected to fall to 1.47% in 2027 when transactions are projected to reach 12.94 billion.

## Credit Card Outstandings in the U.S.

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spending by U.S. businesses. All consumer and commercial card purchase volume (spending for goods and services) on credit cards creates debt. However, neither consumer spending motivated by rewards nor commercial card spending for businesses contributes much to revolving credit card balances subject to finance charges.

The percentage of total credit card debt subject to

finance charges, the revolving debt component of outstanding receivables, has declined almost every year over the last two decades.

Commercial credit card spending grew from 24.4% of all general purpose credit card spending in 2007 to 29.8% in 2017.

Credit card debt on Visa, Mastercard, American Express, and Discover cards as a percentage of purchase volume on those credit

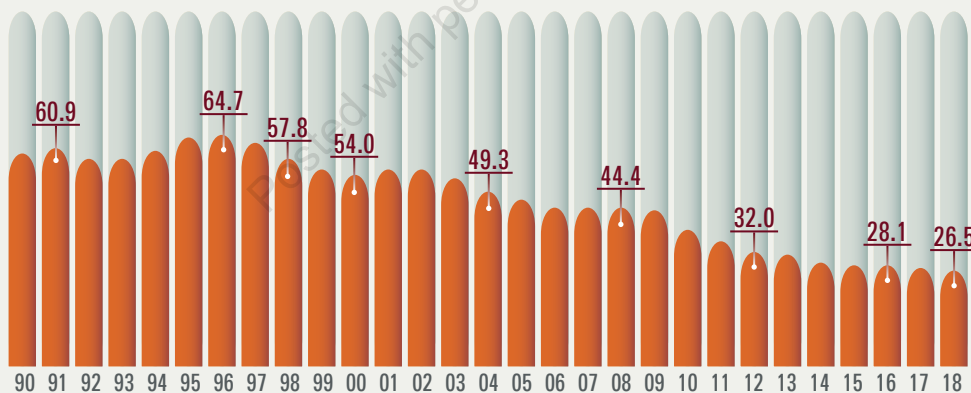
**Card debt was only 62.6% the size of student loan debt in 2018.**

cards peaked in 1996 at 64.7% and slipped to an all-time low of 26.5% at the end of 2018. Even in 2009, when purchase volume fell 9.3% in response to the recession, card debt fell 10.4%. Since the Great Recession of 2008, card debt has grown 13.5% while card spending has grown 90.0%.

Card debt of \$979.08 billion at year-end 2018 was only 62.6% the size of outstanding student loan debt of \$1.564 trillion.

Student loan debt is much more of a liability in the American economy because it largely encumbers younger adults. By comparison, credit card debt is spread out over the entire adult population.

### Outstandings as a Percentage of Purchase Volume on U.S. General Purpose Cards 1990–2018



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