



## Overseas Market

Glory's main customers in this segment include financial institutions, retailers, cash-in-transit companies, and casinos. Our flagship products include banknote recyclers used by tellers to process deposits and disbursements over-the-counter in financial institution branches, banknote sorters used by financial institutions and cash-in-transit companies to eliminate counterfeit currency and sort banknotes, and CASHINFINITY™ cash management systems for retailers. We also supply banknote recycling modules for ATMs on an OEM basis.

### Market Environment and Operating Results

In the Americas, the continuing recovery of the U.S. economy encouraged financial institutions to invest in equipment and facilities. This was reflected in strong sales of banknote recyclers for tellers in financial institutions. However, sales of the CASHINFINITY™ cash management systems for retailers were slowed due to the reaction to the high demand of the previous fiscal year, as well as protracted sales negotiations. As a result, net sales were lower.

In Europe, sales of banknote recyclers for tellers were slow, but strong demand for CASHINFINITY, especially in Germany and France, resulted in higher net sales.

In Asia, we made progress on the marketing of banknote recyclers for tellers and CASHINFINITY to replace banknote sorters. However, difficult market conditions in key countries, such as Australia and India, as well as the continuation of a weak market in China,

which accounts for a large share of regional sales, resulted in slow sales in these countries. As a result, total net sales in Asia were lower year on year.

OEM sales declined because of slow sales of banknote deposit modules for ATMs, despite strong demand for banknote recycling modules for ATMs.

Net sales in this segment increased by 2.9% year on year to ¥106,758 million, with sales to the retail industry providing the impetus. Operating income was 12.8% higher at ¥11,167 million.

### Strategies and Initiatives Going Forward

In April 2018, we shifted from a business division system to a company system in the Overseas Market segment. Development and quality assurance operations were absorbed into this company. By giving company heads full responsibility for business operations, we

aim to speed up decision-making processes.

Our regional strategies for the Americas and Europe focus on the capture of replacement demand for financial institutions, and on the expansion of sales to the retail industry. Our priority in Asia will be the development of new customers in financial institutions and the retail industry.

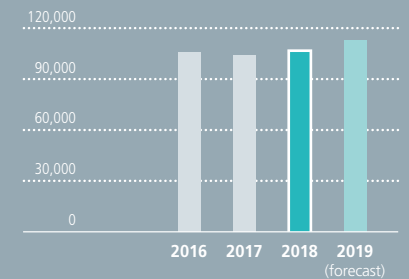
We will aim to accelerate the growth of our overseas business operations through M&A strategies and other approaches.

Contribution to  
Total Net Sales  
(Year ended March 31, 2018)

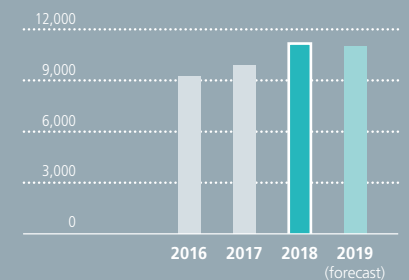
47.0%



Net Sales  
(Years ended March 31) (¥ million)



Operating Income  
(Years ended March 31) (¥ million)



## Segment Information



## OVERSEAS MARKET TOPICS

## Fruits of the World, Spain

# Enhancing Cash Handling Security and Customer Satisfaction



## » The Challenge

The fruit shop “The Fruits of the World” needed a sophisticated solution to minimize cash handling from the start to the end of the business day.

Because of long hours of operation in a modern business park, including weekends, it was not possible for the owner to be on site all the time. Therefore, it was essential to automate certain processes, such as cash management. In addition, the owner sought to optimize the time required to prepare change funds, eliminate discrepancies in cash counting, perform counterfeit detection and shorten the reconciliation process.

Security was also an important factor; with a long

business day, The Fruits of the World needed a solution that ensured the cash drawer didn't need to be constantly opened.

Speed and efficiency were also important factors high volumes of customers at peak times had minimal time in which to do their shopping.

## » The Solution

The Fruits of the World decided that the CASHINFINITY™ CI-10 from Glory was the right solution to meet their needs, which centered on performing cash management processes with accuracy, efficiency, securely and without errors.

## » Benefits

### Cost Savings

Not only is the cash management process faster and without errors, they save 30 minutes per day when carrying out cash balancing. In addition, counterfeit banknote detection and foreign object/ counterfeit coin detection helps the shop to significantly reduce losses.

### Hygiene

As employees do not touch money at anytime, the level of hygiene in the shop is increased. This is a key factor for a fresh food retailer.

### Staff Productivity

In the fruit shop's busiest days can see up to 300 cash transactions, mostly during certain peak hours.

The extraordinary performance of the CI-10 solution from Glory enabled The Fruits of the World to significantly increase employee productivity. Employees are now more satisfied and have less stress, as they do not have to balance cash or prepare change manually. They now have more time for customers.

### Customer Engagement

Customers are also more satisfied, as the waiting time is considerably reduced. Staff can assist them quickly and offer them a more personalized service.

**“With the CASHINFINITY™ solution from Glory, we can save 30 minutes per day when carrying out cash balancing.”**

José Luis Caro,  
The Fruits of the World Owner

## Segment Information



## OVERSEAS MARKET TOPICS

## ASE Credit Union, USA

# Using Innovative Assisted Service Technology to Grow Their Network



## >> The Challenge

In 2016, Alabama State Employees Credit Union (ASE) announced it would be opening ten new branches in just three years. This aggressive growth strategy would enable ASE to meet the needs of its increasing member base. And, at the same time, create a high-tech banking experience—offering the flexibility and conveniences that today's consumers desire.

Achieving this exciting growth initiative required two key components. First, the use of smaller, more efficient retail spaces for its branch locations. And second, the latest in banking technology.

## >> The Solution

ASE Credit Union partnered with Glory for its innovative TellerInfinity™ assisted service technology—capable of performing transactions that until now, only ASE tellers could do. “The teller assist machines were really the cornerstone of our strategy,” says Jared Freeman, CEO. “We basically decided that if this technology doesn't work, this strategy doesn't work.”

With TellerInfinity, ASE branch locations can run more efficiently, enabling tellers to focus on customers and growing business.

**“TellerInfinity™ frees up our staff so that they can process loans, open accounts, and spend more time with the members themselves instead of being focused on a traditional cash transaction.”**

Amanda Pritchard, Project Manager, ASE Credit Union

## >> Benefits

### Employee Deployment

Optimized staff and operational resources by enabling more services to fit into a smaller location with fewer staff.

### Customer Focus

Freed up employees to focus more on customer needs

### Service Value Added

Enabled more time for advising and selling products

### Policy Realization

Paved the way for achieving aggressive growth strategy

ASE's growth strategy was off to a successful start with the launch of its first TellerInfinity location. “The first month this branch was open, it outperformed any other branch, and this is with a four-man crew,” says Pritchard. In addition, 2016 shaped up to be ASE's most profitable year in the credit union's history.

Just as important, TellerInfinity enabled ASE employees to cultivate better relationships with members. “It's why credit unions were created—to be member-focused. We feel like the (TellerInfinity) machines help us achieve one of our most important core values, which is relationships with people,” says Freeman.



## Financial Market

Our main customers in this segment are financial institutions in Japan. Our flagship products include open teller systems, used to manage receipts and disbursements in branches, and coin and banknote recyclers for tellers. Apart from these flagship products, we also supply security storage systems used to store and control important non-cash items, such as business forms and documents. In addition, we supply products to leading system manufacturers and other users on an OEM basis.

The financial market is our main market segment in Japan. We have built market shares of 60% or higher for our core products.

### Market Environment and Operating Results

In Japan, the business environment for financial institutions has remained challenging due to a continuing negative interest rate policy. Financial institutions have responded by accelerating their efforts to strengthen their business structures, including the rationalization of branch opening hours, the diversification of branch types, and the expansion of business bases.

In the year ended March 2018, we worked in this environment to capture new and replacement demand in our main product categories. While sales of coin and banknote recyclers for tellers were strong, in part because of our success in harnessing replacement demand, sales of open teller systems were weak for compact models for small- and medium-sized financial outlets due to the reaction to the strong demand of the

previous fiscal year. There was also continuing growth in sales of products other than cash handling equipment, such as electronic data entry tablets that provide customers of financial institutions with a simple way to create deposit slips and other forms.

Net sales for this segment increased by 1.3% year on year to ¥53,970 million, while operating income was 37.9% lower at ¥4,043 million due to deterioration in product mix, etc.

### Strategies and Initiatives Going Forward

We anticipate that financial institutions will continue to invest in measures to improve profitability and operating efficiency. Our strategy in this environment will be to capture replacement demand and develop new customers for products in our main product categories, such as open teller

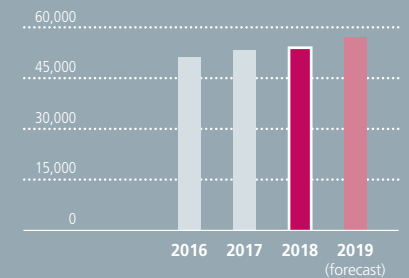
systems and coin and banknote recyclers for tellers. We will also work to expand sales of products other than cash handling equipment, such as electronic data entry tablets and security storage systems.

Contribution to  
Total Net Sales  
(Year ended March 31, 2018)

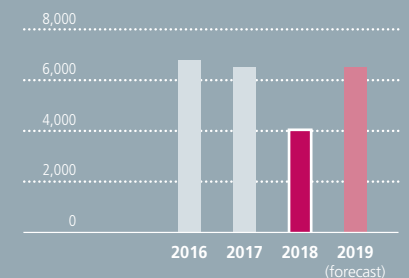
23.7%



Net Sales  
(Years ended March 31) (¥ million)



Operating Income  
(Years ended March 31) (¥ million)





## Segment Information



## FINANCIAL MARKET TOPICS

# Cost Reduction through Mechanization and Efficiency Improvements in Financial Institution Branches

Faster, Easier, More Accurate,  
and Customer Friendly



Open Teller  
Systems

These products allow all cash receipts and disbursements within a branch to be processed in one unit. Even the handling of checks and damaged currency can be systemized. Reconciliation times can also be dramatically reduced, thanks to the elimination of manual work and administrative errors.



PC Integrated  
Scanners

These systems scan handwritten documents received by branches and transmit them to a center. Significant efficiency improvements can be achieved through the centralization of time-consuming data entry work.



Security Storage  
Systems



Key Management  
Systems



Cost reduction, especially through changes to the branch operating structure, has become a priority for Japanese financial institutions because of an increasingly challenging business environment. Visits to the branches of financial institutions to carry out fund transfers and other transactions are an established aspect of Japanese business practices, and branches have become an essential part of social infrastructure. However, many tasks, such as the processing of handwritten forms, and cash management, still require human intervention, and there is an urgent need to reduce costs through mechanization and efficiency improvements.

Glory aims to capture this demand by developing products that contribute to the mechanization and centralization of administrative tasks, such as form processing, as well as the reduction of reconciliation times at the end of each day, and the introduction of self-service processes.

In addition to offering products, Glory can also provide complete support for all aspects of branch development, from the creation of branch designs that allow for smooth traffic flow around equipment, to interior decoration. These capabilities allow Glory to offer financial institutions branch concepts that ensure high levels of operating efficiency and customer satisfaction.

Examples of products that contribute to the mechanization of administrative tasks and the improvement of efficiency:



Electronic Data  
Entry Tablets

These systems allow customers to create forms simply by entering information according to navigation instructions. This method eliminates data entry errors and omissions, eliminating the need to spend time on rewriting or checking amounts.



Self Deposit  
Machines



Banknote  
Changers



Tax and Official Payment  
Deposit Stations

Acceptance of tax and bill payments (water, gas, electricity, etc.) take up around 20–30% of tellers' time (according to Glory's own research). These systems dramatically reduce teller workloads by allowing payments to be made on a self-service basis.

## Segment Information



## Retail and Transportation Market

Supermarkets and cash-in-transit companies in Japan are among our main customers in this segment. Our main products include coin and banknote recyclers for cashiers, which reduce checkout waiting times in supermarkets and other retailers while ensuring accurate cash management, and sales proceeds deposit machines used to manage proceeds at department stores and shopping malls.

Glory also supplies railroad companies with cash recyclers, which count and deposit cash received and dispense change at ticket counters, and coin-operated lockers.

### Market Environment and Operating Results

Rapid changes are transforming the retail sector in Japan, including the use of mergers and alliances to enhance competitiveness, and the liquidation of unprofitable outlets to improve earnings. Retailers are also responding to increasingly serious labor shortages by targeting efficiency improvements in retail outlets. This is generating increasing demand for mechanization solutions.

Glory worked in this environment to capture replacement demand and develop new customers for coin and banknote recyclers for cashiers and sales proceeds deposit machines designed to improve cash handling efficiency and accuracy.

Sales of coin and banknote recyclers for cashiers benefited from our efforts to develop new customers, such as restaurants and specialty stores. However, sales of sales proceeds deposit machines were lower year on

year, in part because of protracted negotiations about new models.

Net sales in this segment were 1.3% higher year on year at ¥43,216 million. Operating income increased by 0.2% to ¥3,476 million.

### Strategies and Initiatives Going Forward

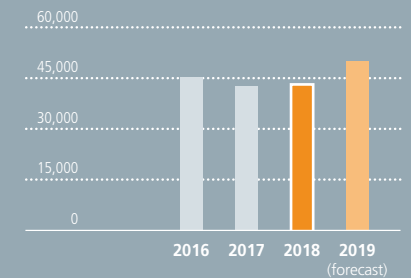
Our strategy for coin and banknote recyclers for cashiers will be to develop new customers in business areas where these products are not yet widely used, such as convenience stores, food service outlets, and specialty retailers. We will also strengthen marketing of self-checkout systems. Another focus will be the expansion of sales in non-cash business areas, such as electronic payment systems for credit cards, electronic money and debit cards, and electronic payment services.

Contribution to  
Total Net Sales  
(Year ended March 31, 2018)

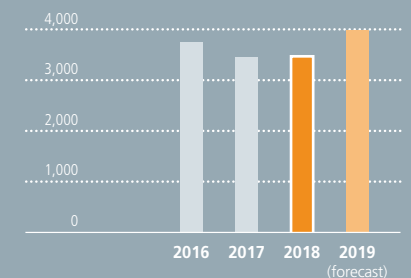
19.0%



Net Sales  
(Years ended March 31) (¥ million)



Operating Income  
(Years ended March 31) (¥ million)



## Segment Information



## RETAIL AND TRANSPORTATION MARKET TOPICS

# Coin and Banknote Recyclers for Cashiers Designed for Convenience Stores

Labor shortages are becoming an increasingly serious problem in the Japanese retail industry. Convenience stores, so-named because they remain open 24 hours a day, not only face labor shortages, but have also diversified their activities and now offer a variety of services, including the acceptance of courier deliveries and the collection of tax and official payments. These factors are reflected in an urgent need for ways to reduce employee workloads and turn inexperienced people into work-ready staff as quickly as possible. In November 2017, Glory provided an effective solution to these needs by launching the R-03 series of coin and banknote recyclers for cashiers designed for convenience stores.

**Feature 1:**

### Slim design that does not interfere with counter work

The overall width of the machine has been reduced by around 10% compared to the conventional model.

**Feature 2:**

### Input/output unit layout optimized for convenience stores

Convenience stores handle a wide variety of transactions, such as the acceptance of courier deliveries and the collection of tax and official payments. To facilitate operation while interacting with customers, Glory has placed the cash input and output units together on the same side of the machine.



## Other Flexible Retail Applications

### Touch Screen Ticket Vending Machines

Glory's ticket vending machines for cafeterias and restaurants have communication capabilities that allow menu distribution and sales aggregation from remote locations, such as a retail chain's headquarters. Customers can place detailed orders, including toppings and side dishes, without the need for staff intervention. To facilitate use by foreign tourists, screen content and guidance can be displayed in five different languages.



### Sales Proceeds Deposit Machines

A growing number of retailers, especially in the supermarket sector, are installing semi-self service checkouts, leading to an increase in the total number of cash recyclers for cashiers per store. This has increased the efficiency of collection and deposit of cash sales, and also of preparation and replenishment of change. Glory's sales proceeds deposit machines use banknote recycler cassettes, which allow sales proceeds to be collected and deposited, and change funds to be prepared and replenished without the need to touch cash directly.



## Segment Information



# Amusement Market

Our main customers in this segment are amusement halls (pachinko parlors). Our core products are peripheral equipment used in amusement halls other than amusement machines themselves. These include pachinko ball/token dispensers and counters, pachinko prize dispensing machines, control computers, and pachinko card systems used to control sales in amusement facilities.

## Market Environment and Operating Results

In the amusement sector, the diversification of leisure activities, a shrinking player population, and other factors have driven a continuing fall in the number of pachinko parlors. However, the number of machines per facility has increased, with the result that there been only a marginal decrease in the total installed base.

In addition, capital expenditure by pachinko parlor operators on new parlors, refurbishment, and other projects began to recover early in the year ended March 2018. This followed the completion in the previous year of the removal of pachinko and pachislot machines that have a strong gambling element\*1 and pachislot machines that may perform differently from tested machines\*2.

Glory responded to this situation by working to increase sales of card systems, which are a key product category in this market. However, capital expenditure by pachinko parlor operators cooled in the second half of the year after introduction of new regulations for

amusement machines, and sales were similar to the previous year's result.

Net sales in this segment were 0.7% higher year on year at ¥20,570 million, while operating income increased by 80.5% to ¥1,331 million.

\*1 As determined by Zennichiyuren, an association of pachinko parlor operators, and five associated companies in a list released on Sept. 30, 2015.

\*2 As determined by Nikkoso, a pachinko machine manufacturers' organization, in a list released on June 23, 2016.

## Strategies and Initiatives Going Forward

We will work steadily toward a number of goals, including closer collaboration with a group company and partner companies, and the timely release of new products. Our aim is to expand sales of our flagship products, including card systems, by enhancing our capacity to propose solutions combining a variety of products and services that contribute to efficient store operation.

### Pachinko Parlors



Pachinko parlors are casino-like recreation facilities unique to Japan. People go to pachinko parlors to amuse themselves by playing two types of game machines: "pachinko" and "pachislot." Pachinko machines resemble vertical pinball machines and pachislot machines are like casino slot machines.

As one of Japan's flagship leisure industries, pachinko and pachislot claims a major share of the country's leisure market. This market accounts for roughly 30% of the leisure market, revenues of ¥21.6 trillion, and 9.4 million players in 2016. (Source: White Paper on Leisure Industry 2017, Japan Productivity Center).

Contribution to Total Net Sales  
(Year ended March 31, 2018)

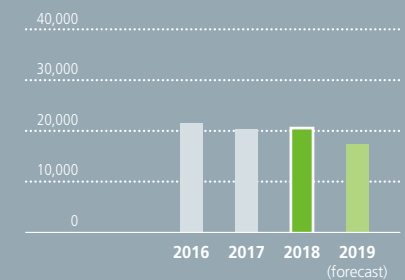
9.0%



### Net Sales

(Years ended March 31)

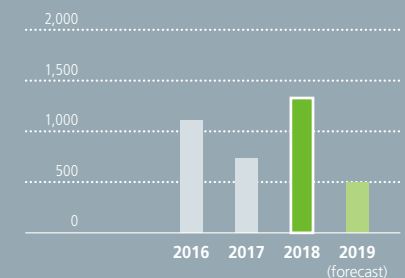
(¥ million)



### Operating Income

(Years ended March 31)

(¥ million)





## Segment Information



## Others

This segment consists of products that are not included in Glory's four reportable segments. Key products include facial recognition systems, as well as our robotic system integration business, which we established in the year ended March 2018.

### Market Environment and Operating Results

Sales of facial recognition systems benefited from growing awareness of security, which was reflected in the installation of systems in supermarkets, specialty stores, and other facilities. The robotic system integration business is also attracting attention in a variety of fields, including the cosmetics, food, and pharmaceutical industries.

As a result, net sales for this segment were 18.6% higher year on year at ¥2,845 million. There was an operating loss of ¥403 million, compared with an operating loss of ¥251 million in the previous year.

### Strategies and Initiatives Going Forward

In the areas of facial recognition systems and robotic system integration business, we will strengthen our organizational structures while also expanding our sales channels in collaboration with other companies. At the same time, we will work to win large orders and develop new customers.

Contribution to  
Total Net Sales  
(Year ended March 31, 2018)

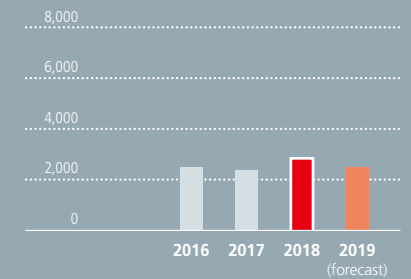
1.3%



### Net Sales

(Years ended March 31)

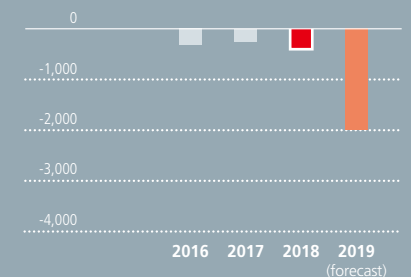
(¥ million)



### Operating Income

(Years ended March 31)

(¥ million)





OTHERS TOPICS

01 &gt;&gt;

## Robotic System Integration Business

See the link below for a video of NEXTAGE.



[http://corporate.glory-global.com/  
groupinfo/movie/?mid=47&cat=  
newsrelease](http://corporate.glory-global.com/groupinfo/movie/?mid=47&cat=newsrelease)

02 &gt;&gt;

## Accelerating Collaboration toward Expanding Sales of Facial Recognition Systems

We have been working towards the automation of our plant in Saitama, Japan since 1993. In 2010, we introduced the humanoid, dual-arm robot NEXTAGE\*1 at the plant, establishing an assembly line where robots work alongside human workers. A total of 23 NEXTAGE units are now in operation.

In April 2017, we used this production technology as the basis for the establishment of a robotic system integration business capable of providing total solutions, including the construction of automated assembly lines utilizing robots, the installation of peripheral equipment, and after-sales services. The name that we chose for this new business is "ASROF" (Automation Smart Robot for Future). We are determined to expand this business, which we have positioned as a new core driver of our Long-Term Vision 2028.

\*1 NEXTAGE is a humanoid robot developed by KAWADA ROBOTICS CORPORATION, Inc.



NEXTAGE packing boxes of makeup foundation at Shiseido Company, Limited.

Growing concerns about security have been reflected in expanding demand for facial recognition systems in recent years. Glory's facial recognition technology has continued to evolve since its first use in 2003, and our current recognition performance has reached high-speed recognition within an average of one second, has a high recognition rate\*2 of more than 99% and holds a position at the top in the industry. The systems have been installed in numerous locations, including large-scale commercial facilities, financial institutions, condominium buildings, hotels, and hospitals.

We aim to expand the range of situations in which our facial recognition systems can be used by accelerating our collaboration with partner companies. We announced two such collaborations in the year ended March 2018.

\*2 False acceptance rate: 0.01%, false rejection ratio: 0.5% (based on assessments carried out by Glory)



Network cameras of Mitsubishi Electric

### 1. Collaboration with Mitsubishi Electric on Facial Recognition Systems Based on Network Cameras

By combining Glory's facial recognition technology with network cameras manufactured by Mitsubishi Electric, we aim to provide products and systems that will meet the needs of a wider range of users, by removing a number of hurdles, such as recognition accuracy problems, and initial system costs.

### 2. Collaboration with Aiphone on Intercom-Based Facial Recognition Systems

AIPHONE CO., LTD. is a specialist manufacturer of intercoms and nurse call systems. Glory has developed an access control system based on facial recognition for its own in-house daycare center. This technology has been combined with an Aiphone system to create a solution that can be used in a variety of security-sensitive facilities.