

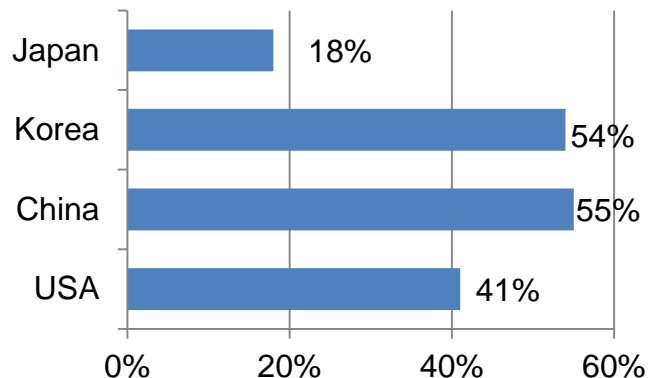
# Digital Payment Trend in Japan

May 15, 2016

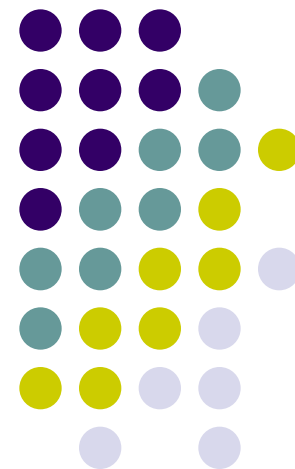
Next Generation IC Card System Study Group

Japan

Cashless Settlement Ratio (2015)



Source: METI "FinTech Vision"



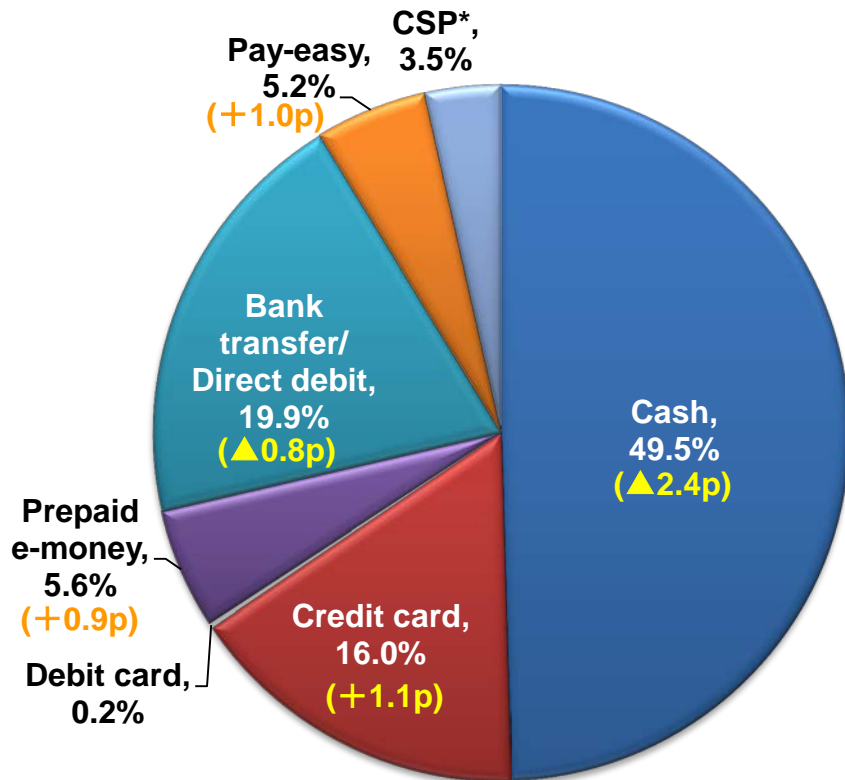
# Agenda

1. Settlement Overview
2. Credit Card
3. Debit Card
4. Transport IC Card and Payment
5. Contactless e-money Payment
6. NFC Mobile Payment
7. House Prepaid Card
8. Other Topics
9. Cash

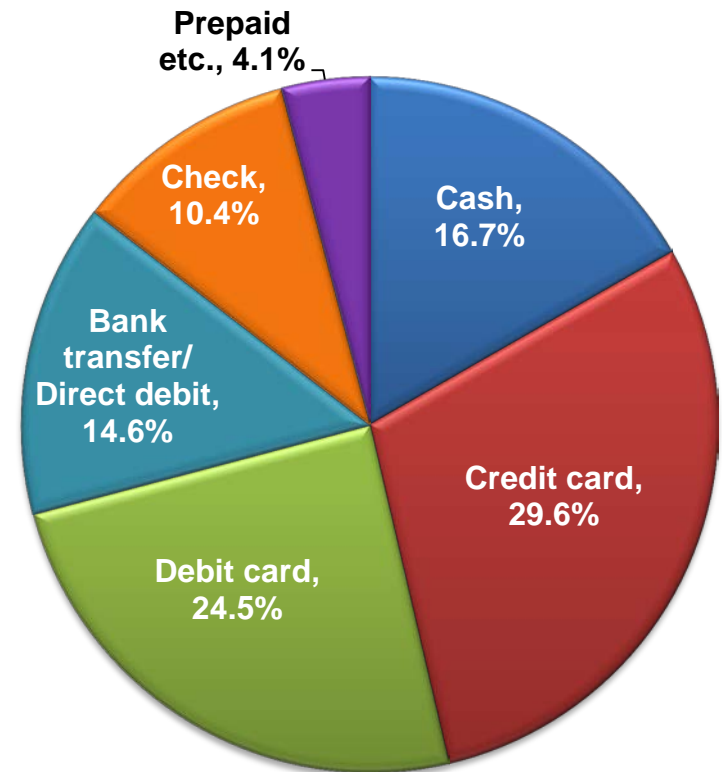
# 1. Settlement Overview

## Share of Personal Consumption by Settlement Method

◆ Japan (2015)



◆ USA (2014)

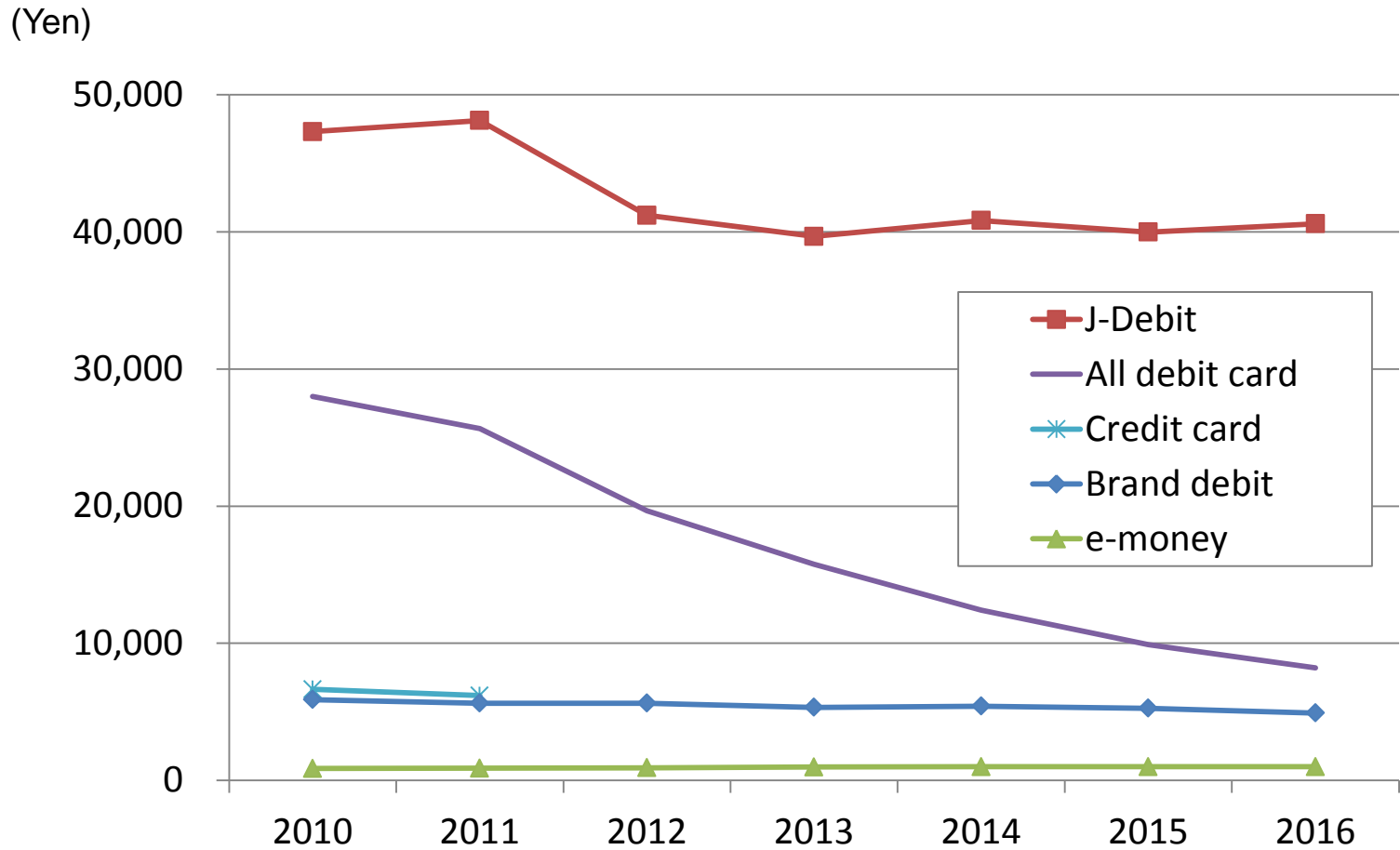


\* CSP: Convenience Store Payment

Source: CREDIT SAISON CO.,LTD.  
 Credit Saison estimates based on materials published by the Ministry of Economy, Trade and Industry, Nihon Card Business Institute's New Payment Report, Mitsubishi UFJ Research and Consulting, and other companies and associations.

Source: THE NILSON REPORT

# Comparison of settlement amount per transaction



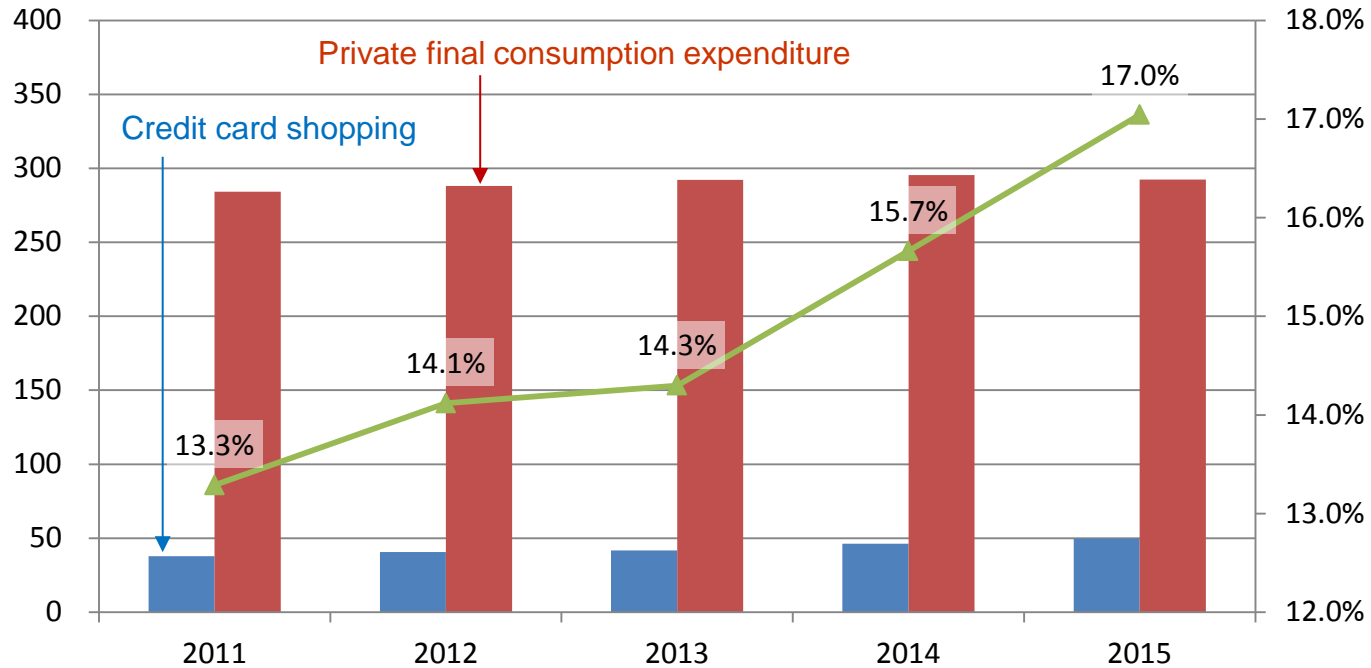
Source: Bank of Japan

Ref. ¥10,000 ÷ US\$89 ÷ ₩100,600

## 2. Credit Card

### Trend of credit card shopping vs private final consumption expenditure

(trillion yen)



Source: JCA

- By 2020, all credit payment terminals support IC(EMV) cards
  - But no description about contact/contactless : contactless technology is optional.
- Tokenization
  - On-us transactions, a major way in Japan, prevent full-fledged tokenization services from spreading.

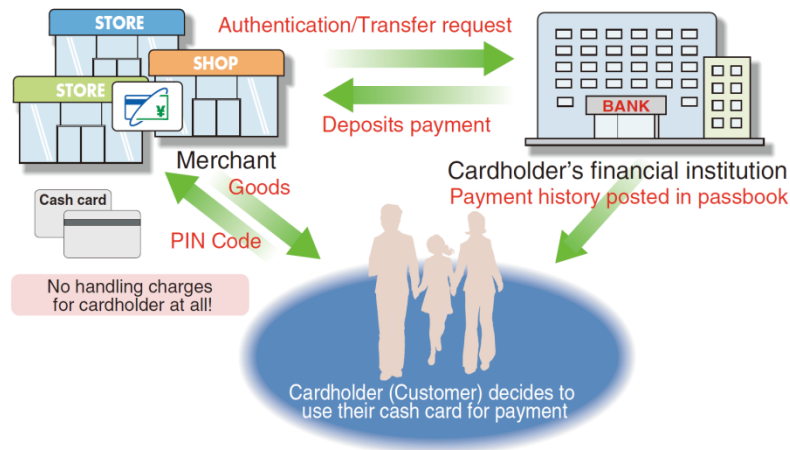
# 3. Debit Card

## □ J-Debit

- Started in March, 2000
- Promoted by Japan Debit Card Promotion Association
- 1077 financial institutes issue the cards (as of March 21, 2017)
- Around 450,000 terminals available nationwide
- Cash cards issued by bank can be used without prior procedure
- No annual fee, no age limit

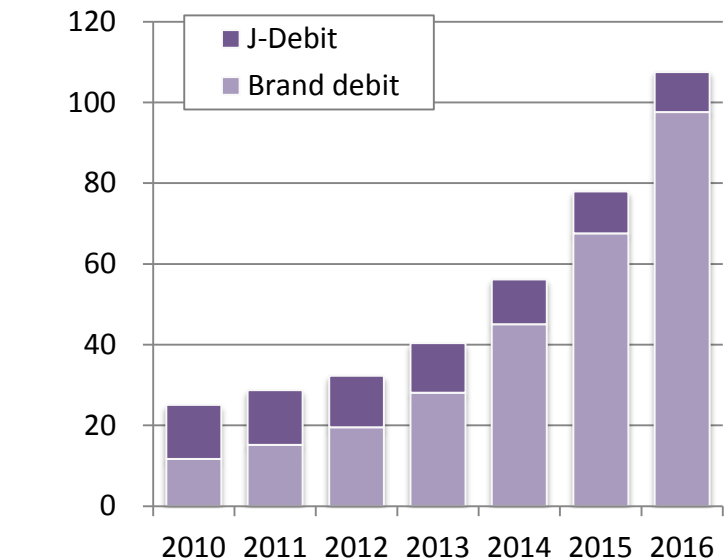
## □ Credit Brand Debit

- Introduced around 2006 in Japan
- Available at the shops accepting credit cards
  - VISA Debit : 44million places globally
  - JCB Debit: 31million places globally
- Also used for net shopping and cash withdrawal
- Annual fee needed occasionally
- Senior high-school age and over



Source: Japan Debit Card Promotion Association

Debit card transaction volume



Source: Bank of Japan

# 4. Transport IC Card and Payment

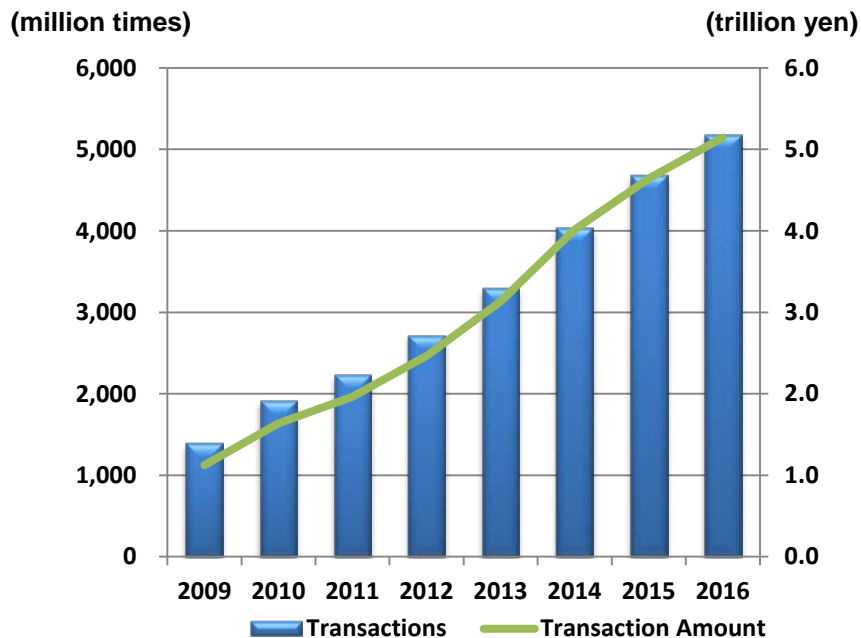
- ❑ Transport IC card situation in Japan
  - Transport operators started implementing IC card ticketing system individually from 2001
  - Nationwide major ten IC card interoperability completed in March 2013
    - More than 120 million interoperable IC cards issued (as of Oct. 2016)
    - 4,804 stations / 44,115 buses accept the cards
  - Further nationwide interoperability is ongoing
  - Transport IC card used as e-money payments
    - 379,000 shops accept payment by the cards (as of Feb. 2017)
    - 140 million monthly transactions per month (Max. in Jul 2016)
    - Connected thin-client terminals contribute to the further touch points



IC card tickets throughout Japan have become interoperable

# Contactless e-money Payment

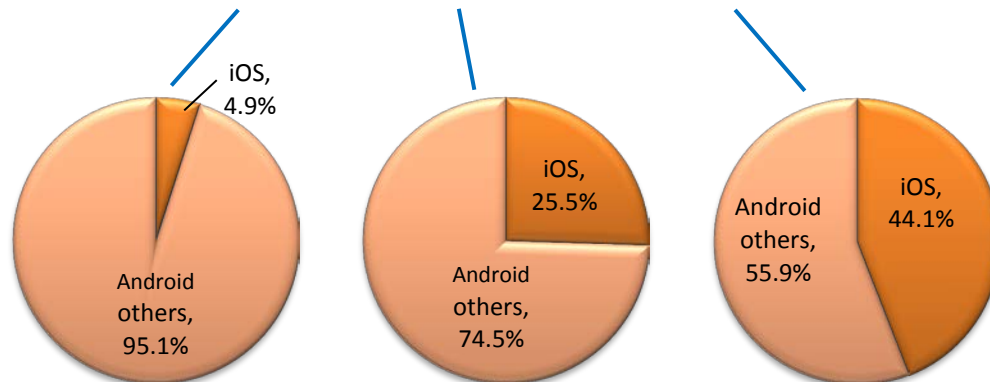
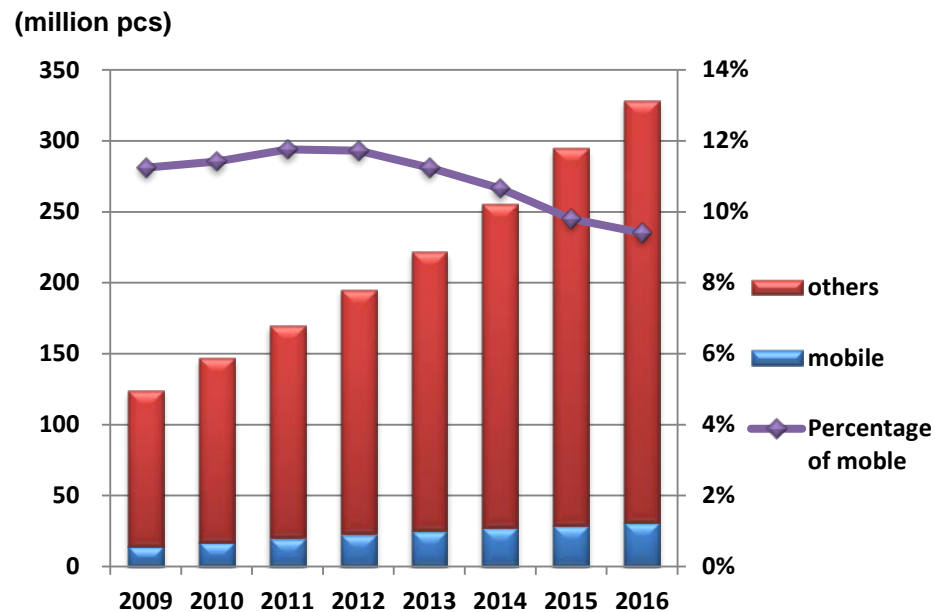
## e-money payment transaction trend



- Figures cover pre-paid e-money payment using devices in which contactless IC chip is embedded.
- These are calculated by submitted data from eight e-money issuers, i.e., electronic money service - "Rakuten Edy", public transportation services - "Suica", "Kitaca", "SUGOCA", "PASMO", "ICOCA", and services by retail companies - "WAON", and "nanaco".
- The value and volume of transit fare collections are not included.

Source: Bank of Japan

## Number of e-money cards and mobile



Source of the mobile OS share: MM Research Institute



# 6. NFC Mobile Payment

## Progress of NFC mobile payment in Japan



**2002**

- Develop NFC by Sony & Philips

**2005**

- JCB QUICPay (credit service)
- NTT DOCOMO iD (credit service)

**2007**

- 7&I nanaco (e-money)
- AEON WAON (e-money)

**2012**

- NFC smartphone with FeliCa

**2004**

- FeliCa Mobile Wallet Service
- Mobile Edy (e-money)
- NFC Forum

**2006**

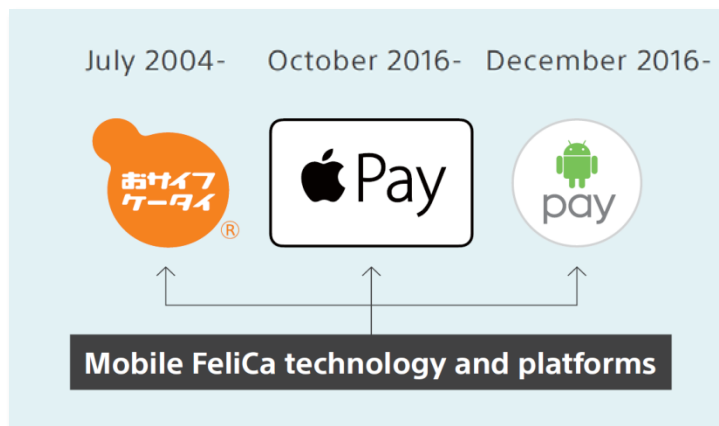
- JR East Mobile Suica (transit)

**2010**

- FeliCa on smartphone






# NFC Mobile Payment with more globalization



Source : FeliCa Networks Inc.

Since 2016, Apple Pay and Android Pay™ have been also available for use in Japan, by taking advantage of the NFC(Near Field Communication) standard and other international standards.

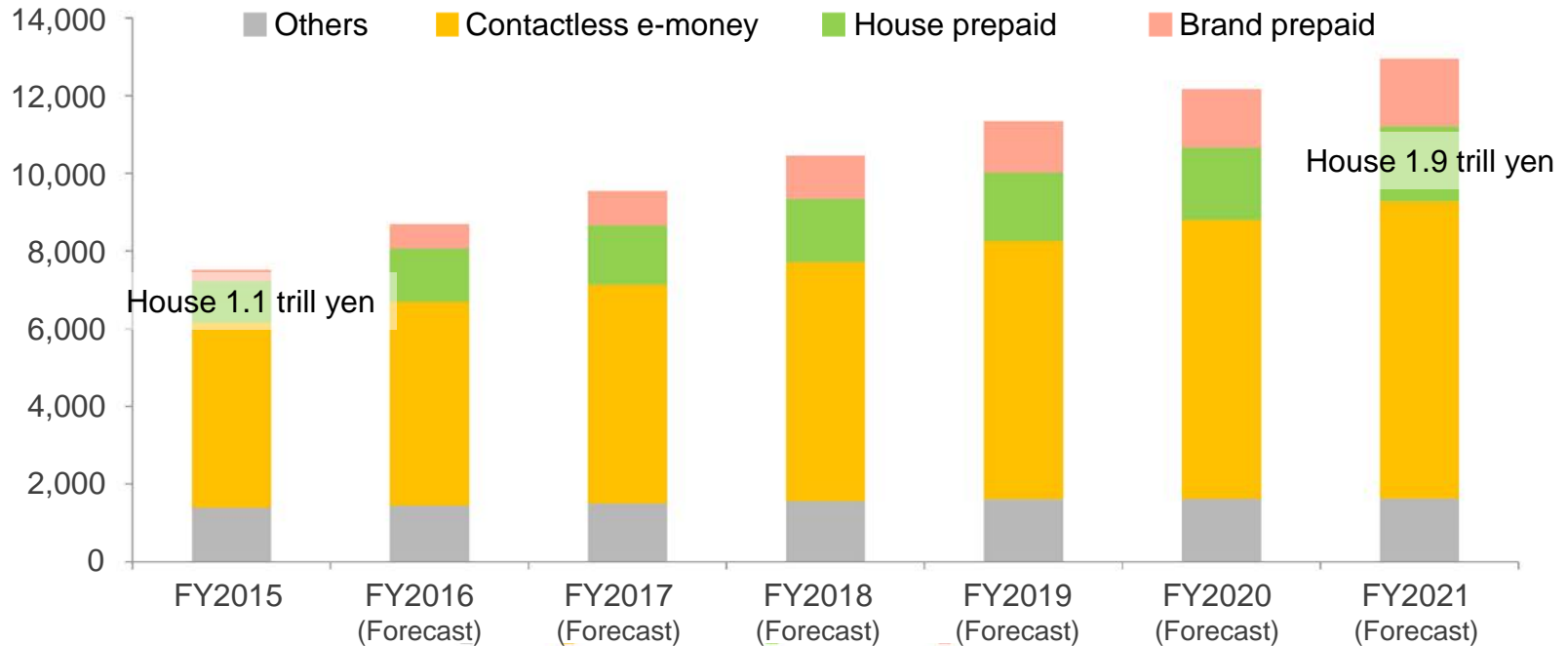
## “Apple Pay” payment scheme

Payment type	Relevant card	Payment service	In-app payment brand	note
Prepaid	Suica	Suica 	-	Transport ticket / e-money payment
Post pay	Aeon, dCARD, Softbank, MITSUI SUMITOMO, Cedyna, JP BANK, Life, etc	iD 	JCB, Mastercard, AMEX	Credit card
	JCB group, Amex, EPOS, Orico, SAISON, JACSS, Seven, VIEW, MUFG, UCS, RAKUTEN, etc	QUICPay 	JCB, Mastercard	Credit card

# 7. House Prepaid Card

## Forecast of prepaid settlement market in Japan

(trillion yen)



Source: YANO Research "Prepaid Settlement Market 2016"

- ❑ The prepaid settlement market in FY2021 expands to 13 trillion yen
- ❑ House prepaid settlement will reach 1.9 trillion yen in FY2021
- ❑ Three major solution providers are developing the house prepaid market

## 8. Other Topics

### □ Various payment method

#### ■ Barcode payment

- Convenience store franchise Lawson started accepting Alipay in January 2017 at its around 13,000 stores. Lawson also introduced another barcode type payment called LINE Pay.

#### ■ Bluetooth payment

- Origami Pay is making use of “iBeacon” Bluetooth technology for its payment, available at some shops and taxi.

### □ Virtual currency

#### ■ Bitcoin

- Around 5,000 shops accept Bitcoin payment in Japan as of April 2017. A large electronic appliance store BIC CAMERA recently introduced Bitcoin payment at its two stores firstly in order to appeal inbound tourists.
- The Act on Financial Settlement revised on April 1<sup>st</sup> has positive impacts on the spread of Bitcoin payment.

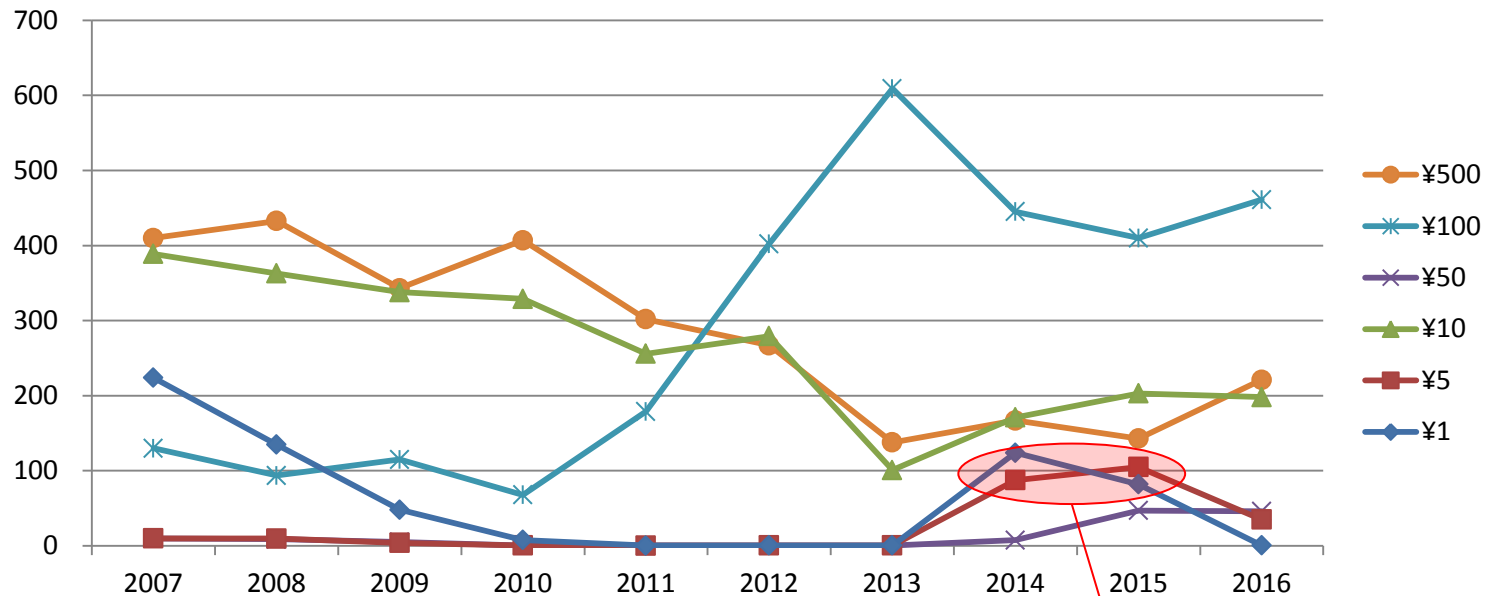
#### ■ “MUFG Coin” by a Japanese mega bank

- Mitsubishi UFJ Financial Group Inc. is planning to introduce its own virtual currency by March 2018.

# 9. Cash

## Number of coin production (2007-2016)

(million pcs)



Consumption tax rate has risen from 5% to 8%

Source: Japan MINT

- ❑ Demand for small coins - ¥1 and ¥5 - are decreasing these days due to the spread of digital payments.
- ❑ After the consumption tax rate rose from 5% to 8% in 2014, small coins have been used less than expected after all.

## Q&A / Discussion