Adoption of international standard in next Zengin System

—Implement ISO20022XML for inter bank payments—

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Tokyo Bankers Association

Operations Administration Department

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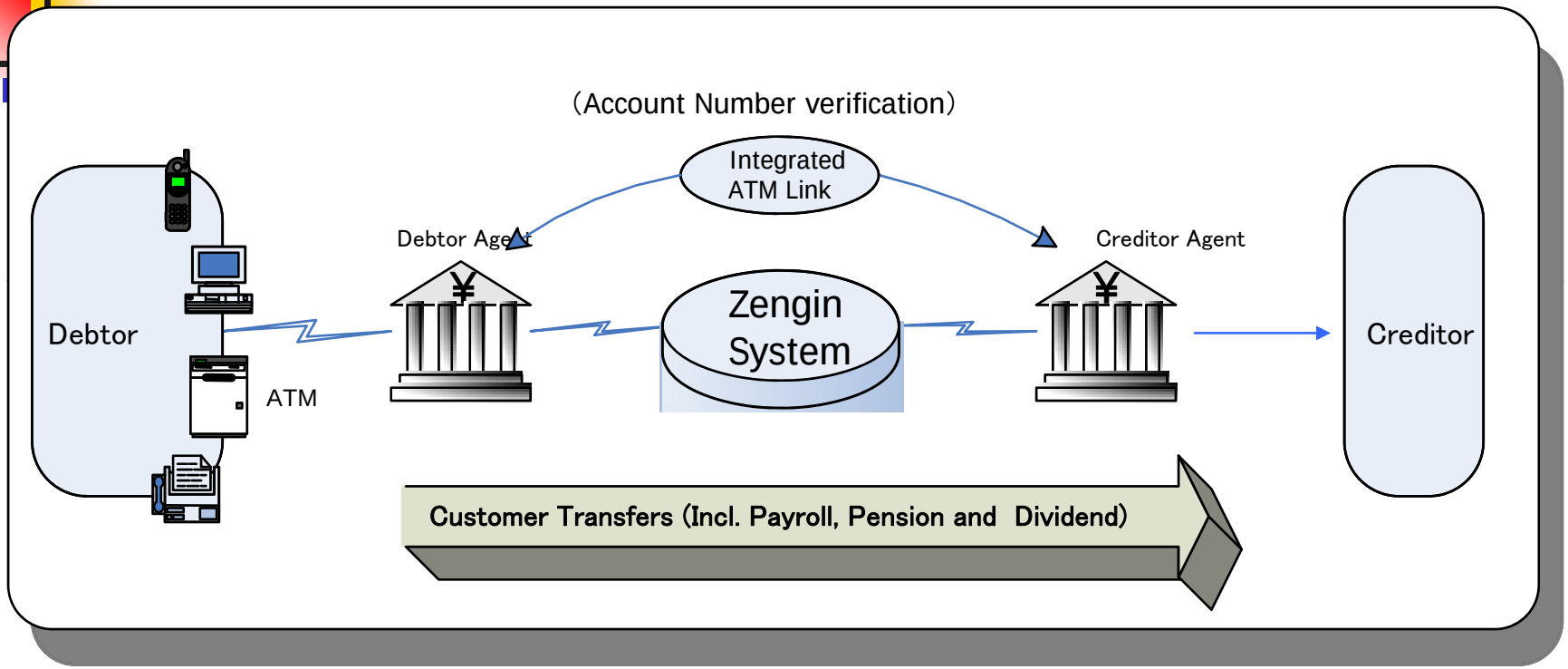
Zengin System

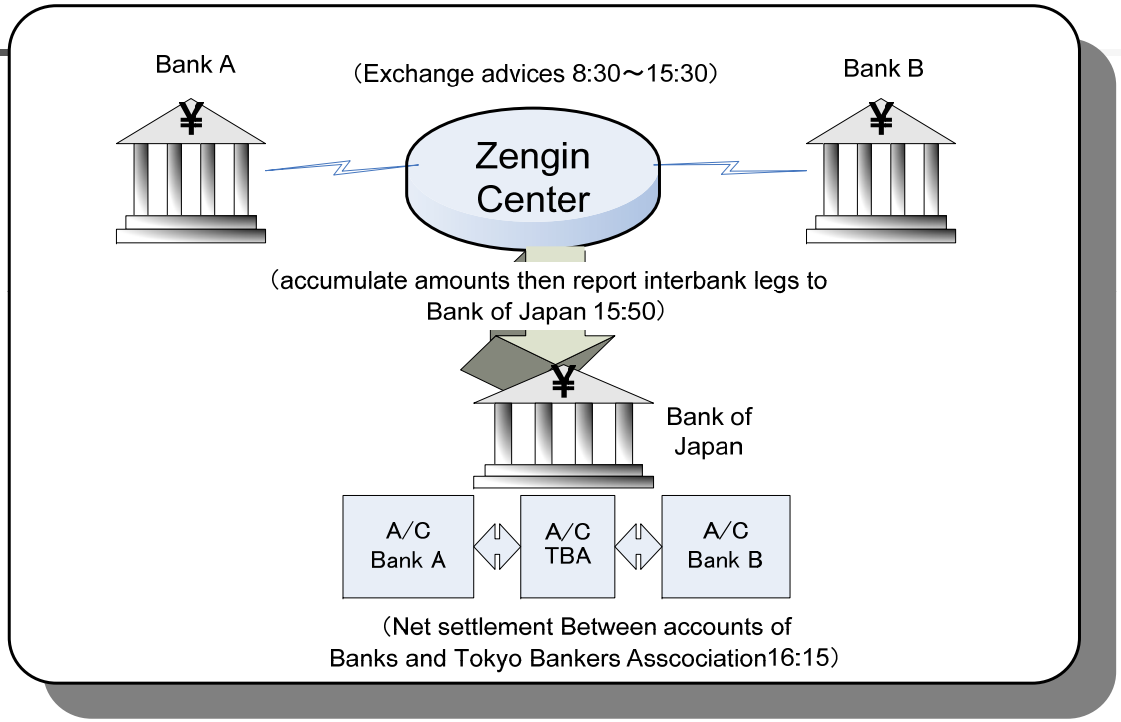
- An on-line system processing domestic fund transfers across Japan
  - Primarily exchanging customer transfer advices
  - Payment instructions are delivered at real time to the account holding banks
  - Inter bank finality is settled at the end of the day through accounts with Bank of Japan
  - Operated by Tokyo Bankers Association

Payment flow through Zengin System



- On-line real time exchange of payment advices
- Verifies account number of creditor account through the integrated ATM Link to avoid error payments
- Supports both single transfers and bulk transfers

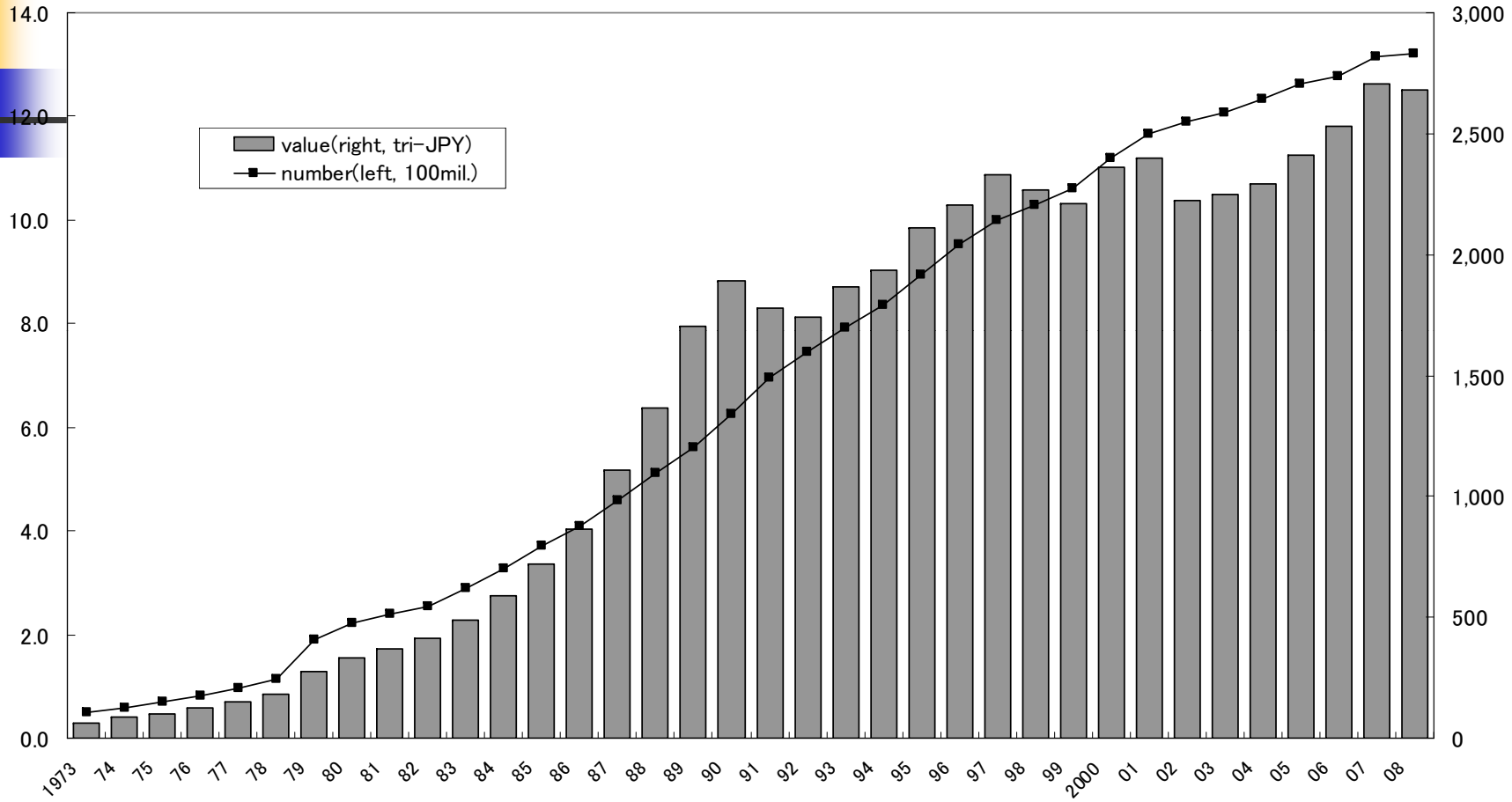
Inter-bank settlement (Finality)



- At the end of the business hour, each banks positions are calculated and settled with Tokyo Bankers Association (TBA) as a central counter party.
- To avoid settlement risks, (1)TBA takes collaterals and (2)TBA rules liquidity arrangement in case of default.
- New system will forward high value payments (over 100m JPY) to BoJ Net RTGS services

Growing business

number and amount of single payments



- 1,418 banks participates covering 33,133 branches (As of Mar 2009)
- System can process 18,000 k transactions per day.

Statistics for the fiscal year ending Mar 2009

	Number (Million)	Value (Trillion JPY)
Single payment	1,321.97 （5.4 a day）	2,678 （10.9 a day）
(Customer Credit)	1,076.58	2,548
（Payroll, Bonus）	209	42
Bulk transfer	114.02 （0.47 a day）	77 （0.3139）
（Customer Credit）	8.37	10
（Payroll, Bonus）	39. 18	8
（Pension）	4.30	0.9
（Dividend）	13.44	5
（Gov't Payments）	20.75	（52）
（account verification）	25.93	（ — ）

6th Zengin System development schedule

- Current system ends November 2011
- Study started on 2007
- Published external specification (version 1) April 2009

Features of 6th Zengin System

① Adoption of global standards

- Introducing XML data coding（ISO20022）

  → XML format added to the existing format.
  XML is regarded as a flexible solution to express data and International standard "ISO20022" applies XML coding.
  With XML, more flexiblity and benefits of using industry standards are expected.

- Enhanced EDI information (Remittance Information)

  →With XML format, the existing EDI information will increase from 20 characters to 140 characters (supports repetitive use) Richer remittance information can be embedded to payment instructions.

- Using TCP/IP for communication protocol with IP-VPN

  →As TCP/IP and IP-VPN become stable technologies, these will increase interoperability and reduce cost.

Features of 6th Zengin System (Cont.)

② Increasing flexibility of the system

- Adopting SOA

  → Re-designed system adopts SOA（Service Oriented Architecture）for flexibly and timely development for future requirements

③ Reducing settlement risks with better BCP

- High value payments are settled at BOJNet RTGS

  →Payments over 100 million JPY will be settled at RTGS through BOJNet, reducing intra day settlement risks.

- New file transfer service implemented

  → The increased capacity / transmission speed will increase the level of BCP and flexibility as well as efficiency.

- Testing facility

  →The physical testing facility enables better access to the test system, resulting shorter lead-time of development and contributing to participant banks' BCP

Introducing XML data coding

- XML（Extensible Markup Language) will increase the interoperability between different systems and efficiency in development and maintenance of systems
- Adding XML data format between participant banks and Zengin Center.
- Apply ISO20022

Introducing XML data coding (Cont.)

- Bank can send and receive XML data with Zengin Center.

  （Zengin Center holds a participant bank table of XML and non-XML.）
- Zengin Center accepts both XML and non-XML format, converts format in the center.
- Gradual migration is available by way of JC-split (multi-interface of bank) function

ISO20022 used by 6th Zengin System

pacs.008.001.01 * FIToFICustomerCreditTransfer （Customer Payment）	Customer credit, Pension, Payroll etc.
pacs.009.001.01* FinancialInstitutionCreditTransfer （Bank Transfer）	Bank transfer

*Application of latest release pacs.008.001.02 and pacs009.001.02 are under discussion

Enhanced EDI information (leveraging XML format)

- EDI（Electronic Data Interchange）-remittance information

  Current system caters 20 characters for remittance information

⇒Between XML user banks, maximum length of EDI information will be increased within the maximum length of transmission text.

Collaboration with SWIFT

- SWIFT ：ISO20022 RA（Registration authority）
- Gap analysis between Zengin system format and ISO20022 was carried out
- Advise obtained from SWIFT for message implementation

Next steps

- Finalising XML format (March 2010)
- Planning testing schedule (Fiscal year 2009)
- Planning testing procedure and detail （Fiscal year 2010）
- Integration test（ Fiscal year 2011)
- Cut over（Nov 2011）

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