



Developments and Case Study of Big Data Audit in Financial System Area in China

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Finance Regulatory System in China

separated financial supervision system

*integrated financial
audit system*



Financial
System Audit



People's Bank of China
(the central bank)



China Banking and Insurance
Regulatory Commission



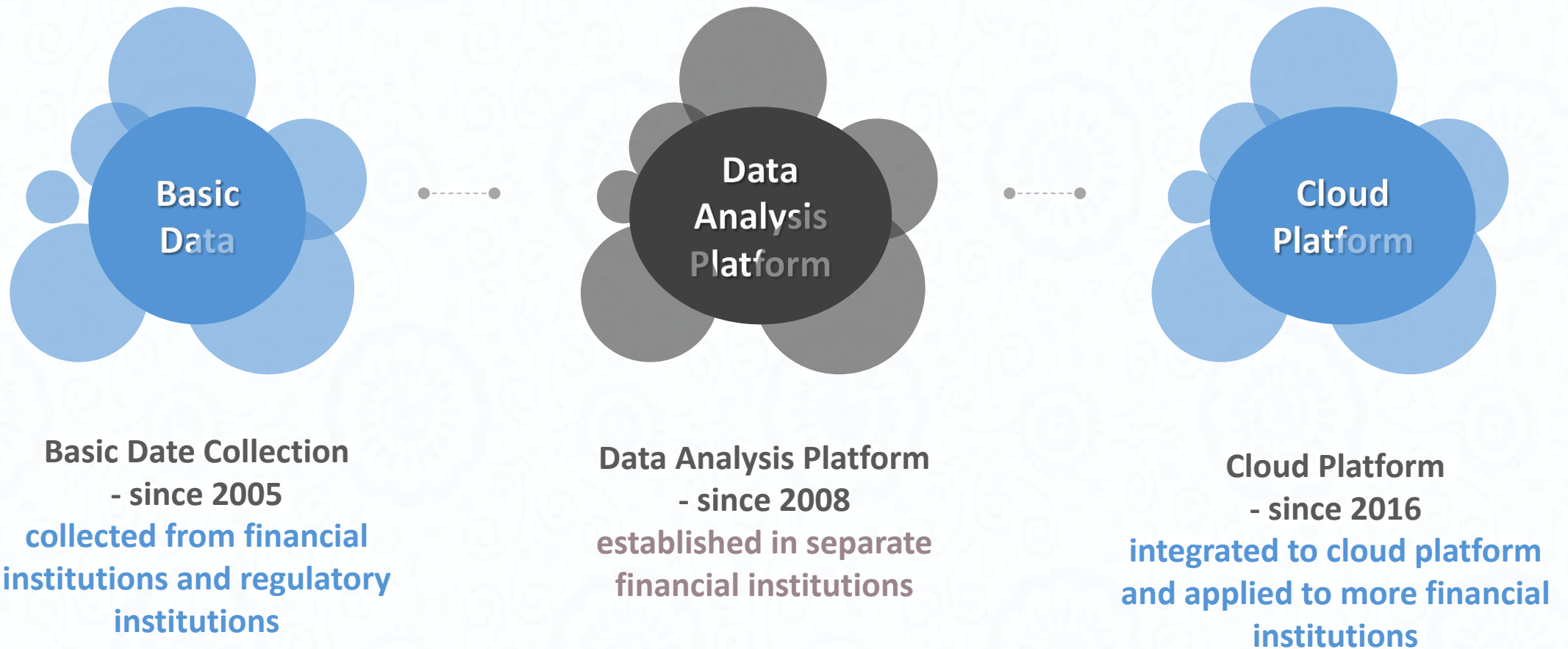
China Securities Regulatory
Commission

financial market





Exploration to Big Data Audit



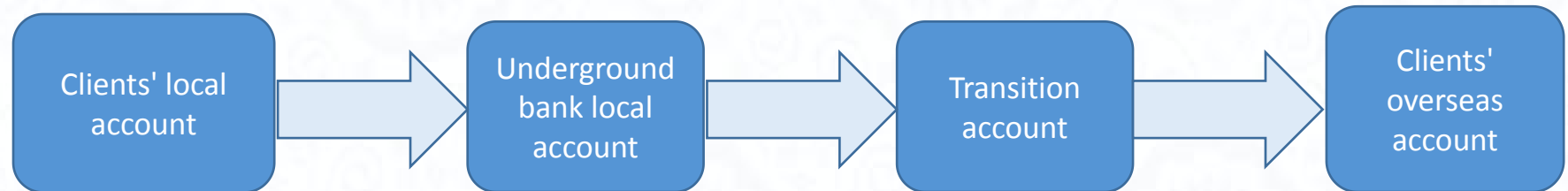


Case Study : Anti-money Laundering

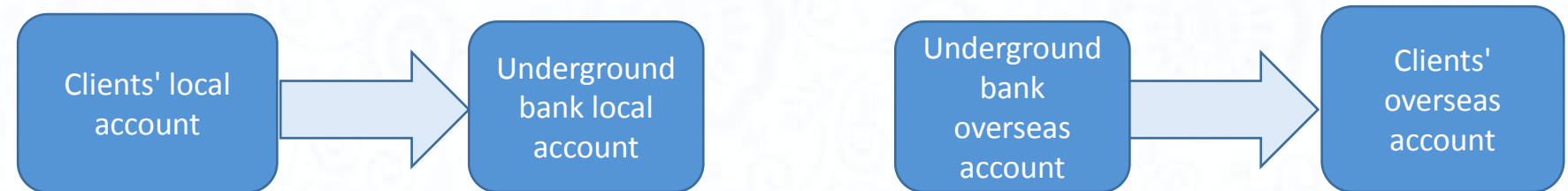
Anti-money Laundering Case Study – *a new type of underground bank*

cross-border underground bank : help clients avoid regulation and transfer money from home to abroad

1.traditional type



2.wash trade type





Case Study : Anti-money Laundering

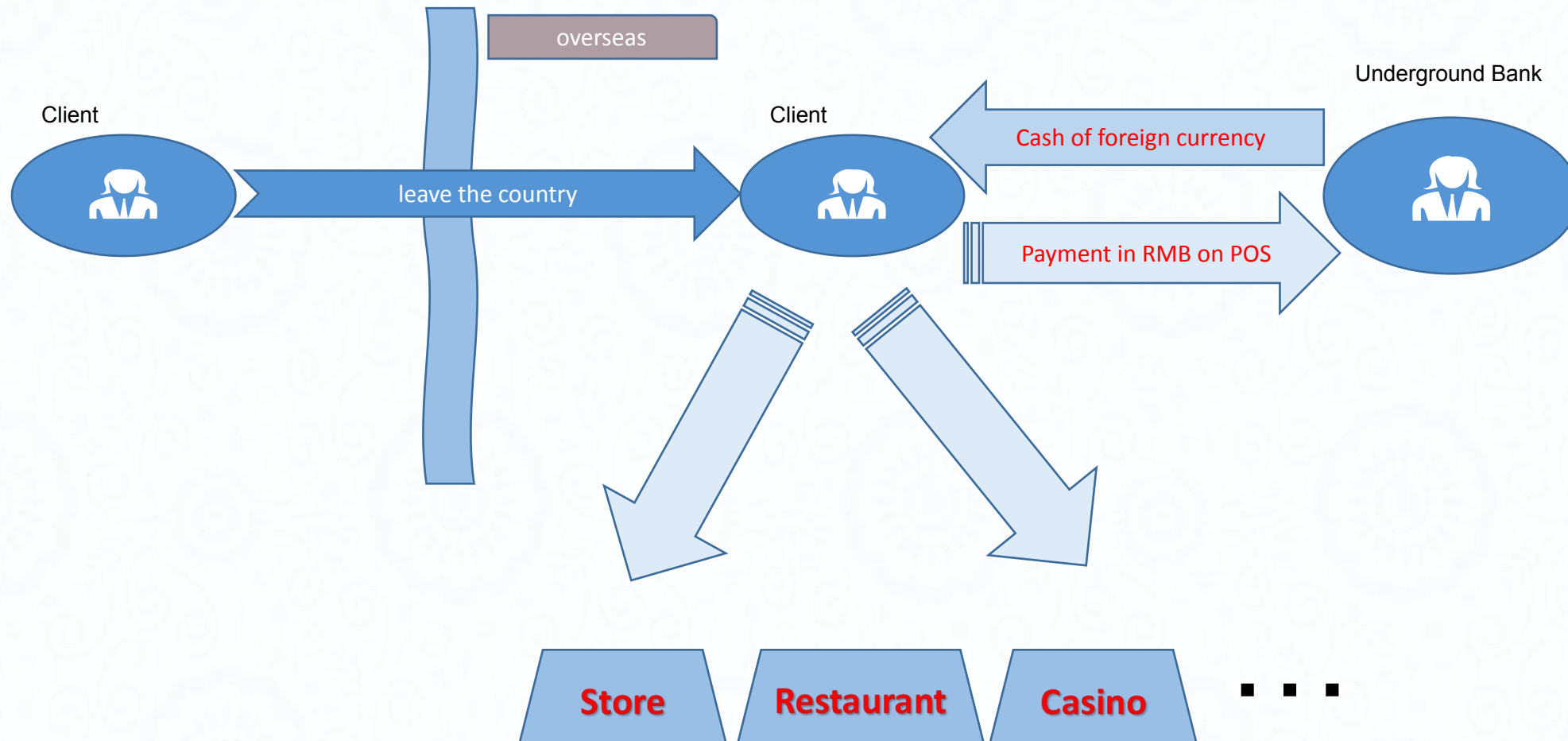
3.POS terminal type

- a) apply a POS terminal inside the country
- b) crack the POS terminal and avoid technical detection
- c) take the POS terminal to leave the country
- d) clients consume abroad through “the cracked” POS terminal and exchange foreign currency in cash





Case Study : Anti-money Laundering





Case Study : Anti-money Laundering

Card No.	Date	Time	Merchants	C/D	Transaction Amount	Transaction Balances	Remarks
961196119611	2017/10/2	20:57:43	Beijing ABC Grocery Store	D	¥10,000,000	**	Goods
961196119611	2017/10/2	21:11:12	Louis Vuitton, Causeway Bay, Hongkong	D	¥35,000	**	Handbag ** edition
961196119611	2017/10/2	21:53:15	Marriott Hotel, Victoria Harbour, Hongkong	D	¥2,600	**	Others
961196119611	2017/10/3	08:28:14	Marriott Hotel, Victoria Harbour, Hongkong	D	¥320	**	Buffet
961196119611	2017/10/3	09:40:11	Gun Yant, Lee	D	¥108	**	Personal
961196119611	2017/10/3	10:10:31	Beijing ABC Grocery Store	D	¥10,000,000	**	Goods



Case Study : Anti-money Laundering

realization process: 1.mining features for clients

- (1) screening consumption overseas accounts to reduce the sample. Take consumption in Hongkong as example, screening abstract which contains “ Hongkong”in consumption record.
- (2) extract those clients' consumption record both home and in Hongkong
- (3) associate above 2 tables and screen consumption in Hongkong as well as domestic consumption within 12 hours.

realization process: 2. drawing full view of underground bank

realization process: 3. analyzing the scale of underground bank



Case Study : Anti-money Laundering

Transaction period is quite short,
always less than one year

**Transaction
period**

**Transaction
types**

Transaction types are quite simple, only
receiving money from different bank
accounts and transferring almost the
same amount to another, and the ending
balance of each day is very small.

The transaction frequency and the
total amount of the transaction are
extremely high.

**Transaction
frequency**

**Transaction
channel**

Most of the transaction was initiated via
internet channel, and a same IP
address may suggest that a group of
accounts was controlled by someone.

*Suspicious
accounts*





Case Study : Anti-money Laundering





THANK YOU

Any Questions ?