



Shopee

ShopeePay

Accounting 是如何反应业务的？

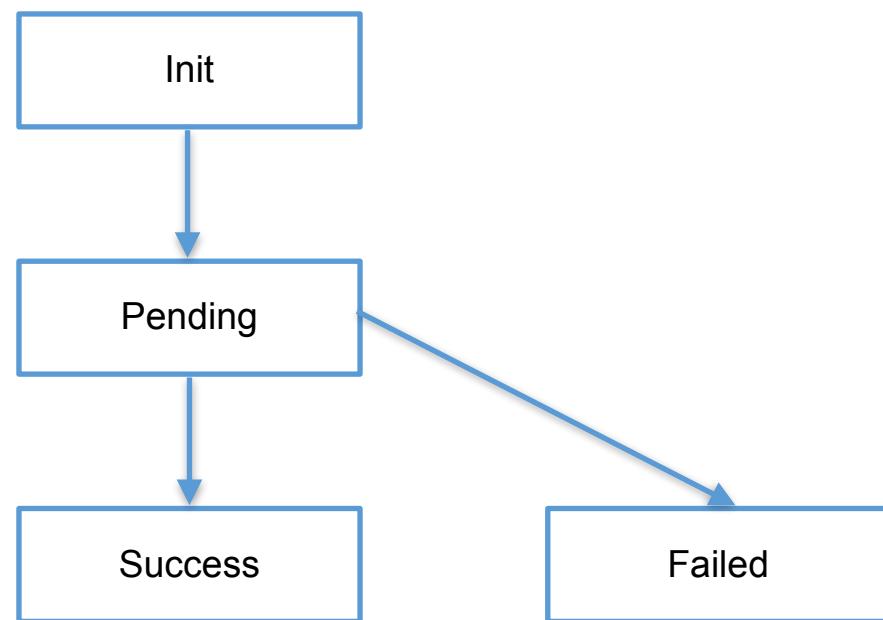
Matt.chow



一个例子：Outbound 汇款打款失败



Outbound的状态机



1. Outbound 调BCA的API出款
2. BCA返回成功，Outbound状态机更新为成功
3. T+1 银行文件告知这笔交易失败
4. Ops对账发现交易失败，于是Adjust用户余额退回

1 Accounting Introduction**2 Business Traceability****3 Q&A**



What's Accounting?



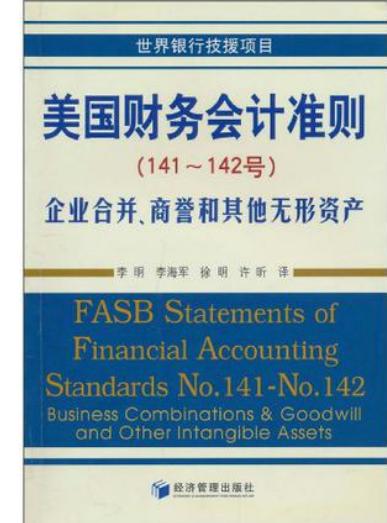
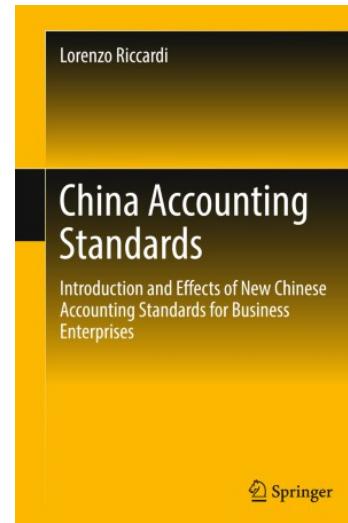
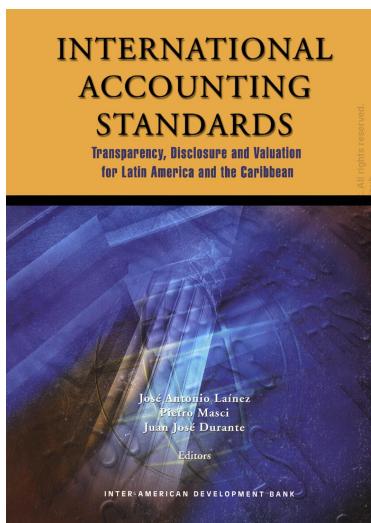
Bookkeeping



Accounting



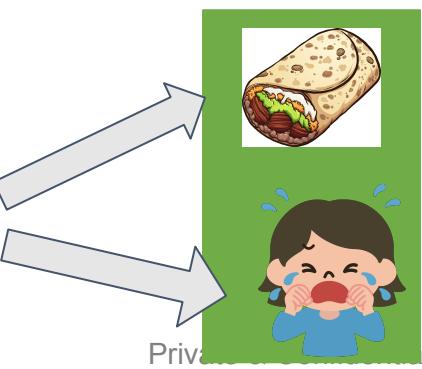
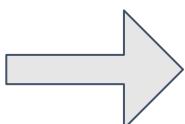
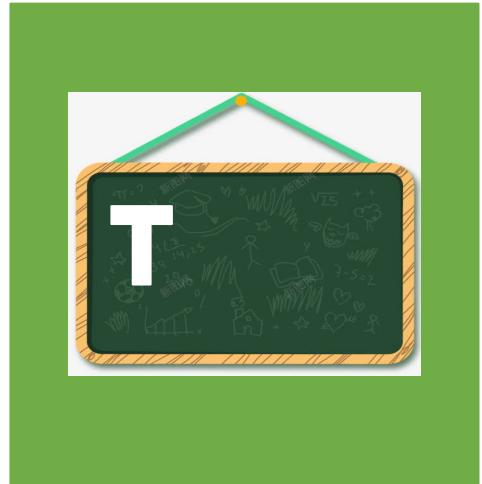
Accounting Standard



What is Accounting?

an information system that measures, processes
and communicates financial information about an
economic entity.

Brother qiang's burrito stand 强哥的煎饼摊



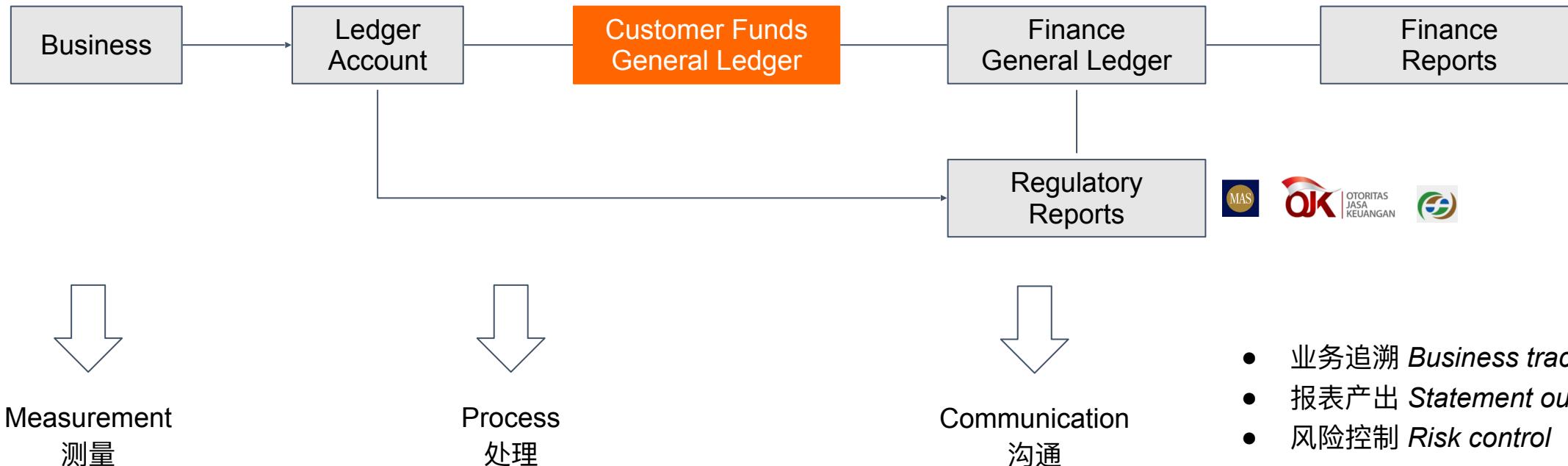
Measurement
测量

Process
处理

Communication
沟通



Accounting in the payment system 实际业务中的会计核算



完整、准确的记录客户资金及因客户资金业务导致的自有资金变动信息，产出客户资金及相关自有资金业务的有效的财务数据，发现和防控资金变动中的业务风险。

To keep complete and accurate records of the customer funds and the financial funds changes information in the customer fund business, to produce valid financial data on the customer funds and related funds business, and to detect and prevent the business risks in the changes of funds.



Financial Statement 财务报表

What does finance really want?
以终为始，财务到底要什么？

Statement of Financial Position 资产负债表

Cashflow Statement 现金流量表



FINANCIAL STATEMENT

Income Statement 损益表

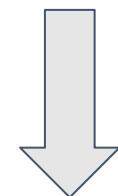
Statement of Owner's Equity 所有者权益表

Financial Position

财务状况



Economic Resource
经济资源
生产要素



Assets 资产

Q: Who owns the assets?
资产是属于谁的?





Accounting Equation

会计恒等式

Financial Position

财务状况

资产 = 负债 + 所有者权益

Assets

Liabilities

Owner's Equity





Assets 资产

Monetary Item
货币资产

Physical Item/Tangible Assets
有形资产

Non-physical Item/Intangible Assets
无形资产

Cash
现金

Accounts Receivables
赊账

Production Factors
生产要素

Patent
专利

Copyright
著作权

Trademark
商标



Liabilities 债务

Borrowed Money
借款

Accounts Payable
应付账款

Wage Payable
应付工资



所有者权益 = 资产 - 负债

Owner's Equity

Assets Liabilities

Net Assets 净资产

Capital 资本



Accounting Equation 会计恒等式

描述	Assets 资产	Liabilities 债务	Owner's Equity 所有者权益
强哥向隔壁鑫哥借款5000元 Qiang brother borrowed 5000\$ from xin	Cash+5000	+5000元	
强哥购买了一个自动煎饼机 Qiang purchased an automatic machine	Cash -1000 EQ +1000		
强哥赊账向阿康购买了鸡蛋 Qiang bought eggs from kang on credit	Tangible +800	AP+800元	
强哥卖煎饼实现了600元的收入 Qiang had 600\$ income from selling pancakes	Cash +600		Income+600
老板阿花出钱升级成了自动驾驶 Hua out of the money to upgrade to automatic machine	EQ+20000		+20000





Account

账户

The basic storage units for accounting data and are used to accumulate amounts from similar transactions.





T-Account



The term describes the appearance of the bookkeeping entries. First, a large letter T is drawn on a page. The title of the account is then entered just above the top horizontal line, while underneath debits are listed on the left and credits are recorded on the right, separated by the vertical line of the letter T

现金账户 CASH		
Debit	Credit	
股东投资 3000\$	煎饼机 3000\$	
Shareholder Investment	Pancake machine	
借款 8000\$	原材料 800\$	
Borrowing	Raw materials	
销售额 400\$	工资 2400\$	
Sales	Wages	
11400\$		6200\$

现金增加
Increase in cash



现金减少
Decrease in cash



余额 (结余)

Balance 5200\$



Double Entry Accounting 复式记账法

Assets 资产			Liabilities 负债			Owner's Equity 所有者权益	
Cash 现金			Account Payment 应付账款			Revenue 收入	
Debit	Credit		Debit	Credit		Debit	Credit

All financial transactions are considered to affect at least two of a company's accounts
每一笔交易都会触发至少两个账户的变更



Assets

资产

Liabilities

负债

Owner's Equity

所有者权益

Cash 现金	
Debit +	Credit -

Equipment 设备	
Debit +	Credit -

Loan 贷款	
Debit -	Credit +

Owner's Capital 所有者资本	
Debit -	Credit +

Revenue 收入	
Debit -	Credit +

Account Receivable 应收账款	
Debit +	Credit -

Inventory 库存	
Debit +	Credit -

Account Payable 应付账款	
Debit -	Credit +

Expense 支出	
Debit +	Credit -

Withdrawal 撤资	
Debit +	Credit -

Left +

Righ -

Left -

Right +



Assets

资产

Liabilities

负债

Owner's Equity

所有者权益

Cash 现金	Equipment 设备	Loan 贷款	Owner's Capital 所有者资本	Revenue 收入
Cash 现金		bit -	Owner's Capital 所有者资本	Credit +
Debit May 1 23000	Credit	bit -	Debit May 1 23000	Credit val 撤资 Credit -



强哥老婆阿花注资23000元

Brother qiang's wife injected 23000\$



Assets

资产

Cash 现金	
Debit +	Credit -
May 1 2300	

Equipment 设备	
Debit +	Credit -

Account Receivable 应收账款	
Debit +	Credit -

Inventory 库存	
Debit +	Credit -

Liabilities

负债

Loan 贷款	
Debit -	Credit +

Account Payable 应付账款	
Debit -	Credit +

Owner's Equity

所有者权益

Owner's Capital 所有者资本	
Debit -	Credit +
May 1 2300	

Revenue 收入	
Debit -	Credit +

Expense 支出	
Debit +	Credit -

Withdrawal 撤资	
Debit +	Credit -



Assets

资产

Liabilities

负债

Owner's Equity

所有者权益



Cash 现金	Equipment 设备	Loan 贷款	Owner's Capital 所有者资本	Revenue 收入
Cash 现金 <div style="display: flex; justify-content: space-between;"> <div style="flex: 1;"> <p>Debit</p> <p>May 1 23000</p> <p>May 4 8000</p> </div> <div style="flex: 1;"> <p>Credit</p> </div> </div>	<div style="display: flex; justify-content: space-between;"> <div style="flex: 1;"> <p>bit -</p> <p>ccount 应付账款</p> <p>bit -</p> </div> <div style="flex: 1;"> <p>Loan 贷款</p> <div style="display: flex; justify-content: space-between;"> <div style="flex: 1;"> <p>Debit</p> </div> <div style="flex: 1;"> <p>Credit</p> <p>May 4 8000</p> </div> </div> </div> </div>	<div style="display: flex; justify-content: space-between;"> <div style="flex: 1;"> <p>bit -</p> </div> <div style="flex: 1;"> <p>Credit +</p> </div> </div>		<div style="display: flex; justify-content: space-between;"> <div style="flex: 1;"> <p>Credit +</p> </div> <div style="flex: 1;"> <p>val 撤资</p> <p>Credit -</p> </div> </div>



强哥向隔壁阿鑫借款8000元

Brother qiang borrowed 8000\$ from xinge



Assets 资产

Cash 现金	
Debit +	Credit -
May 1 2300	
May 4 8000	

Equipment 设备	
Debit +	Credit -

Account Receivable 应收账款	
Debit +	Credit -

Inventory 库存	
Debit +	Credit -

Liabilities 负债

Loan 贷款	
Debit -	Credit +
	May 4 8000

Account Payable 应付账款	
Debit -	Credit +

Owner's Equity 所有者权益

Owner's Capital 所有者资本	
Debit -	Credit +
	May 1 2300

Revenue 收入	
Debit -	Credit +

Expense 支出	
Debit +	Credit -

Withdrawal 撤资	
Debit +	Credit -



Assets

资产

Liabilities

负债

Owner's Equity

所有者权益

Cash 现金	Equipment 设备	Loan 贷款	Owner's Capital 所有者资本	Revenue 收入

Inventory 库存		bit -	Accounts Payable 应付账款		Credit +
Debit	Credit		Debit	Credit	
May 7 800				May 4 800	



强哥赊账向供应商购买了800元的鸡蛋

Brother qiang bought 800\$ of eggs on credit



Assets 资产

Cash 现金	
Debit +	Credit -
May 1 2300	
May 4 8000	

Equipment 设备	
Debit +	Credit -

Account Receivable 应收账款	
Debit +	Credit -
May 7 800	

Inventory 库存	
Debit +	Credit -
May 7 800	

Liabilities 负债

Loan 贷款	
Debit -	Credit +
May 4 8000	

Account Payable 应付账款	
Debit -	Credit +
May 7 800	

Owner's Equity 所有者权益

Owner's Capital 所有者资本	
Debit -	Credit +
May 1 2300	

Revenue 收入	
Debit -	Credit +

Expense 支出	
Debit +	Credit -

Withdrawal 撤资	
Debit +	Credit -



Assets

资产

Liabilities

负债

Owner's Equity

所有者权益

Cash 现金	Equipment 设备	Loan 贷款	Owner's Capital 所有者资本	Revenue 收入
Cash 现金		bit -		Revenue 收入
Debit May 1 23000 May 4 8000 May 7 3000	Credit	bit - ccoun 应付账 bit -	Debit May 7 3000	Credit val 撤资 Credit -



5.10日营业额3000
5.10 revenue 3000



Assets

资产

Cash 现金		Equipment 设备	
Debit +	Credit -	Debit +	Credit -
May 1 2300			
May 4 8000			
May 7 3000			
Account Receivable 应收账款		Inventory 库存	
Debit +	Credit -	Debit +	Credit -
		May 7 800	

Liabilities

负债

Loan 贷款		Account Payable 应付账款	
Debit -	Credit +	Debit -	Credit +
	May 4 8000		May 7 800

Owner's Equity

所有者权益

Owner's Capital 所有者资本		Revenue 收入	
Debit -	Credit +	Debit -	Credit +
	May 1 2300		May 7 3000
Expense 支出		Withdrawal 撤资	
Debit +	Credit -	Debit +	Credit -

Total Debit = Total Credit
有借必有贷，借贷必相等



Assets

资产

Liabilities

负债

Owner's Equity

所有者权益

Cash 现金	
Debit +	Credit -

Equipment 设备	
Debit +	Credit -

Loan 贷款	
Debit -	Credit +

Owner's Capital 所有者资本	
Debit -	Credit +

Revenue 收入	
Debit -	Credit +

Account Receivable 应收账款	
Debit +	Credit -

Inventory 库存	
Debit +	Credit -

Account Payable 应付账款	
Debit -	Credit +

Expense 支出	
Debit +	Credit -

Withdrawal 撤资	
Debit +	Credit -

Left +

Right -

Left -

Right +



Assets

资产

Liabilities

负债

Owner's Equity

所有者权益

Expense increase

Equity decrease

Cash 现金	Equipment 设备	Loan 贷款	Owner's Capital 所有者资本	Revenue 收入
Cash 现金				
Debit +	Credit -	Debit +	Credit -	

Cash 现金

Debit + Credit - May 29 4500

Expense 支出

Debit + Credit - May 29 4500

val 撤资 Credit -



发工资4500

Paying wages 4500



Assets 资产

Cash 现金	
Debit +	Credit -

Equipment 设备	
Debit +	Credit -

Account Receivable 应收账款	
Debit +	Credit -

Inventory 库存	
Debit +	Credit -

Liabilities 负债

Loan 贷款	
Debit -	Credit +

Account Payable 应付账款	
Debit -	Credit +

Owner's Equity 所有者权益

Owner's Capital 所有者资本	
Debit -	Credit +

Left -

Revenue 收入	
Debit -	Credit +

Expense 支出	
Debit +	Credit -

Left +

Withdrawal 撤资	
Debit +	Credit -

Right -



资产 = 负债 + 所有者权益
Assets Liabilities Owner's Equity

Total Debit = Total Credit
有借必有贷，借贷必相等



General Journal 日记账

Date	Account	Debit	Credit

Date	Account	Debit	Credit
5月1日	Cash 现金 Owner's Capital 所有者资本 Capital Contribution 所有者阿花注资	23000	23000
5月5日	Cash 现金 Equipement 设备 Cash purchase of Equipment 现金购买煎饼机	8000	8000
5月7日	Accounts Payable 应付账款 Inventory 库存 Credit Purchase of stock 赊账购买鸡蛋	2000	2000
5月20日	Cash 现金 Revenue 收入 Cash Sales 现金销售煎饼	9000	9000
5月29日	Cash 现金 Wage Expense 工资支出 Paying Wage 支付工资	4950	4850
5月30日	Cash 现金 Prepaid Rent 预付租金 Prepayment of rent 预付下个月的租金	10000	10000

Injection
注资
23000

Cash 现金	
Debit +	Credit -

Loan 贷款	
Debit -	Credit +

Revenue 收入	
Debit -	Credit +



Ledger Account 分类账户

Date 日期	Account 账户			Debit	Credit
5月1日	Cash 现金 Owner's Capital 所有者资本 Capital Contribution 所有者阿花注资			23000	23000
Cash 现金					
Date 日期	Account 账户	¥ 金额	Date 日期	Account 账户	¥ 金额
5月1日	Owner's Capital 所有者资本	23000			

Owner's Capital 所有者资本					
Date 日期	Account 账户	¥ 金额	Date 日期	Account 账户	¥ 金额
			5月1日	Cash 现金	2300

Cash 现金	
Debit +	Credit -

Owner's Capital 所有者资本	
Debit -	Credit +



Complete the second step of bookkeeping 完成记账的第二步

Cash 现金					
Date 日期	Account 账户	¥ 金额	Date 日期	Account 账户	¥ 金额
01/05	Owner's Capital 所有者资本	23000	06/05	Equipment 设备	20000
03/05	Loan 贷款	8000	25/05	Wage Expense 工资支出	4950
09/05	Revenue 收入	9000	30/05	Prepaid Rent 预付租金	10000
			31/05	Withdrawal 撤资	3000
	Balance 余额	2050			



Total Debit = Total Credit 有借必有贷，借贷必相等

Trial Balance 试算表		
	Dr	Cr
Cash 现金	2050	
Owner's Capital 所有者资本		23000
Loan 贷款	20000	
Equipment 设备		2000
Accounts Payable 应付账款	2000	
Inventory 库存		9000
Wage Expense 工资支出	4950	
Prepaid Rent 预付租金	10000	
Withdrawal 撤资	3000	
	42000	42000

A trial balance is a bookkeeping worksheet in which the balance of all ledgers are compiled into debit and credit account column totals that are equal.

Preparing a trial balance for a company serves to detect any mathematical errors that have occurred in the double-entry accounting system. If the total debits equal the total credits, the trial balance is considered to be balanced, and there should be no mathematical errors in the ledgers. However, this does not mean there are no errors in a company's accounting system. For example, transactions classified improperly or those simply missing from the system could still be material accounting errors that would not be detected by the trial balance procedure.





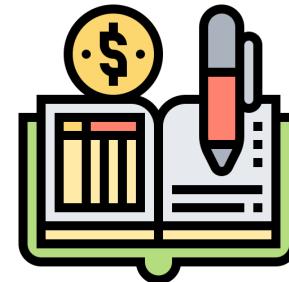
Summary 小结



Transaction
交易



General Journal
日记账



Ledger Account
分类账户



Trial Balance
试算表



2 Business Introduction



会计科目参照表

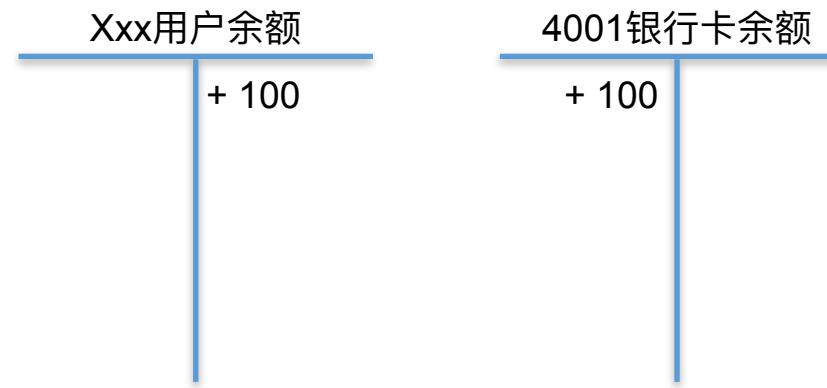
编号	名称	现用名称	编号	名称	现用名称
一、资产类					
1001	现金	库存现金	2101	短期借款	
1002	银行存款		2301	长期借款	
1009	其他货币资金		2111	应付票据	
1101	短期投资		2121	应付账款	
1111	应收票据		2151	应付工资	应付职工薪酬
1121	应收股利		2153	应付福利费	应付职工薪酬
1131	应收账款		2131	预收账款	
1133	其他应收款		2160	应付利润	
1141	坏账准备		2171	应交税金	应交税费
1151	预付账款		2181	其他应收款	
1202	在途物资		2181	其他应付款	
1211	原材料		2191	预提费用	
1221	包装物		2211	预计负债	
1231	低值易耗品		2331	专项应付款	
1232	材料成本差异				
1243	库存商品		三、所有者权益类		
1244	商品进销差价		3101	实收资本	
1251	委托加工物资		3111	资本公积	
1301	待摊费用		3121	盈余公积	
1501	固定资产		3131	本年利润	
1502	累计折旧		3141	未分配利润	
1505	固定资产减值准备				
1601	工程物资		四、成本类		
1603	在建工程		4101	生产成本	
1701	固定资产清理		4105	制造费用	
1801	无形资产				
1901	长期待摊费用		五、损益类		
1911	待处理财产损溢		5101	主营业务收入	
			5102	其他业务收入	
			5201	投资收益	
			5301	营业外收入	
			5401	主营业务成本	
			5405	其他业务成本	
			5402	营业税金及附加	
			5501	销售费用	
			5502	管理费用	
			5503	财务费用	
			5601	营业外支出	
			5701	所得税费用	

Account	Account Desc
101627	Cash in Bank - UOB SGD 0415
101780	Escrow Bank - OCBC SGD 6001
101788	Cash in Bank - DBS SGD 2628
101789	Cash in Bank - DBS SGD 5514
101828	Cash in Bank - UOB USD 1138
101997	Cash in Banks - Contra
102001	Bank Clearing Account
103001	Bank Deposit (original term 3 mths or less)
103003	Bank Deposit (original term more than 3 mths)
104118	Escrow Bank - UOB SGD 0407
104144	Escrow Bank - OCBC SGD 2001
104145	Escrow Bank - OCBC SGD 4001
104146	Escrow Bank - DBS SGD 2636
104147	Escrow Bank - UOB SGD 4392
104148	Escrow Bank - UOB SGD 4406
104149	Escrow Bank - UOB SGD 4414
104184	Escrow Bank - UOB USD 9148
104185	Escrow Bank - UOB SGD 2328
110001	Trade Receivables
110002	Unbilled Receivable
110003	Receivables from COD
110004	Loans to customers
110005	Interest Receivables on Loans - Consumer - Current
110090	Allowance For Doubtful Debts
111101	Other Debtors
111102	Other Debtors - Staff
111103	Other Debtors - Directors
111104	Staff Advances for Operations
111105	Corporate Income Tax Paid in Advance
200101	Trade Payables
200201	Other Payables
200202	Other Payables - Staff
200203	Other Payables - Director
200204	Customer Deposits
200205	Short Term Loans - Related companies
200206	Other payables - Merchant's money
200207	Other Payables : Unidentified receipt
200210	Other payables - Employee personal income tax
200214	Other Payables - VIE
200217	Other payables - Merchant's money (unmatched)
200251	Other Payables - Non-trade
200252	Other payables - PPE (pending payment)
200253	Other payables - IA
200254	Other payables - Investments
200255	Other payables - Advertising costs
200257	Other payables - PPE (pending payment) - Servers
200258	Other payables - PPE (pending payment) - Leasehold improvements
200301	Interest Payable - Director
200302	Interest Payable - Third Party
200303	Interest Payable - Related Companies
200402	Accrued - Hosting Expenses
200403	Accrued - Expense Reimbursements
200404	Accrued - Bonus
200405	Accrued - Facility
200406	Accrued - Professional Service
200407	Accrued - Marketing & Advertisement
200408	Accrued - Corporate Income Tax
200409	Accrued - Other
200410	Accrued - Rent-free period and escalation clause



Example I : Topup

用银行卡给钱包充值(不考虑fee)





Example I : Topup



Reg Finance

Local Finance

Local Ops

Record actual based on merchant report/ invoice

Request for rate details

Extract data from merchant portal

Provide latest updated rate details

Download Shopee BE report

Record accrual based on Ops reports

Reconcile Shopee BE report with 3rd Party/Interco manually offline

Book actuals, accruals and any other month end adjustments in EBS

Calculate fees in offline excel files/gsheet trackers

Input numbers into Regional Finance Gsheet Tracker

Extracts numbers from Gsheet into monthly report for Chris

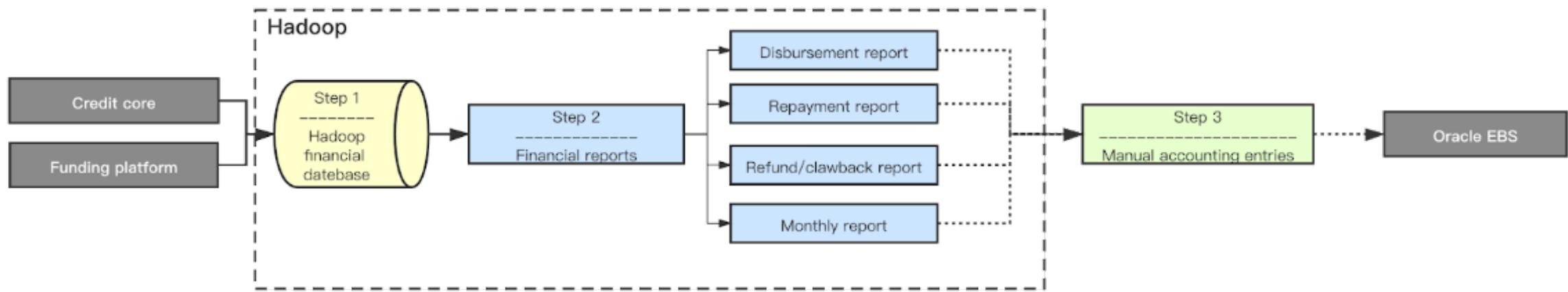
1

2

3

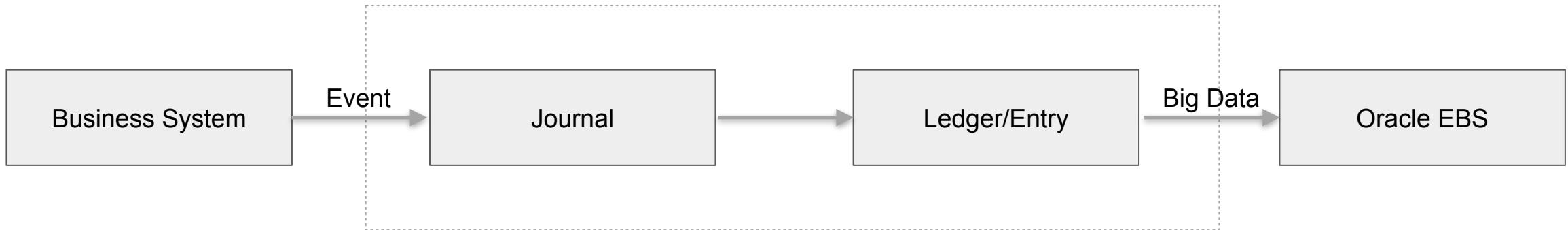


Accounting base on Data driven





Accounting base on Event driven



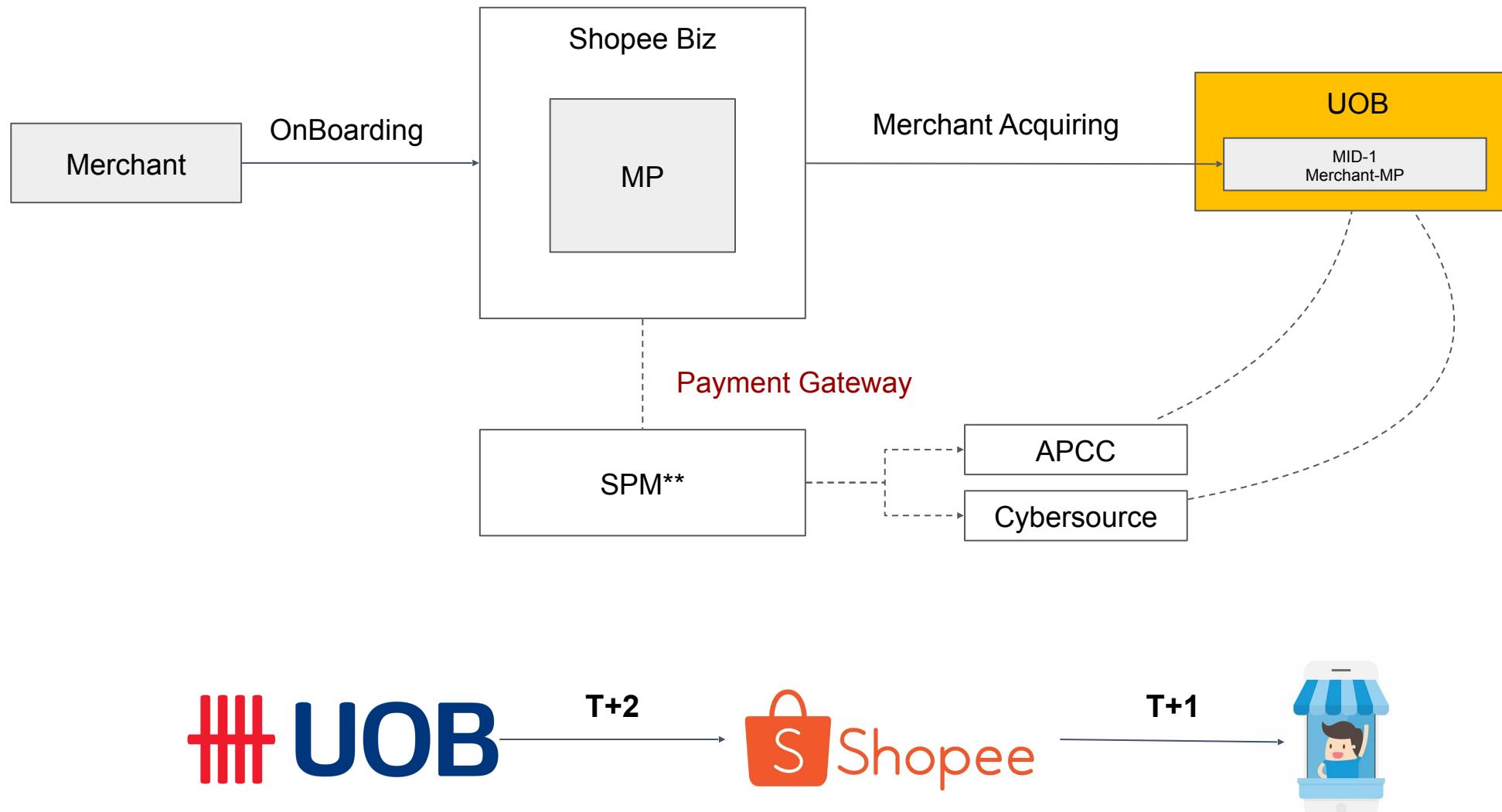


两种实现的方式对比

	Data Driven	Event Driven
确定核算逻辑	业务上线前/业务上线后	业务上线前
对业务的影响或者侵入	极小	中
结果的准确性	中	高
可维护性	低	高



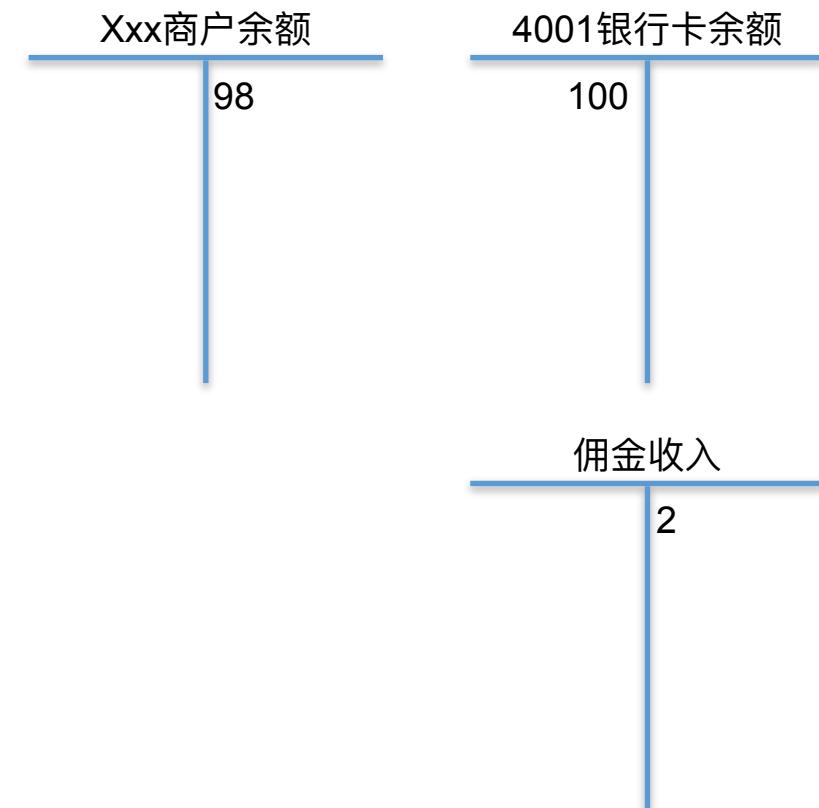
Example II : Payment -> AR





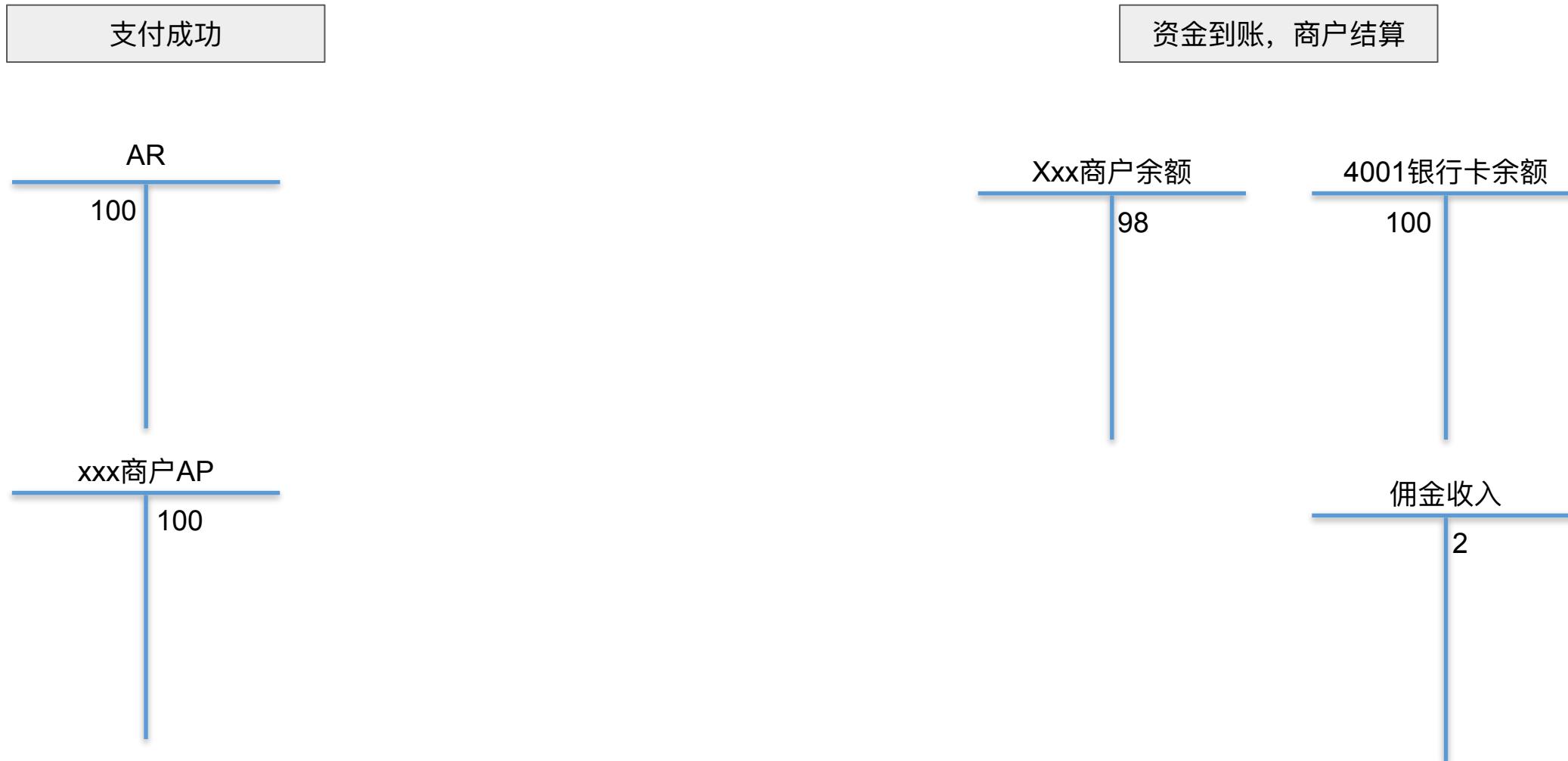
最终的记账呈现

资金到账、商户结算



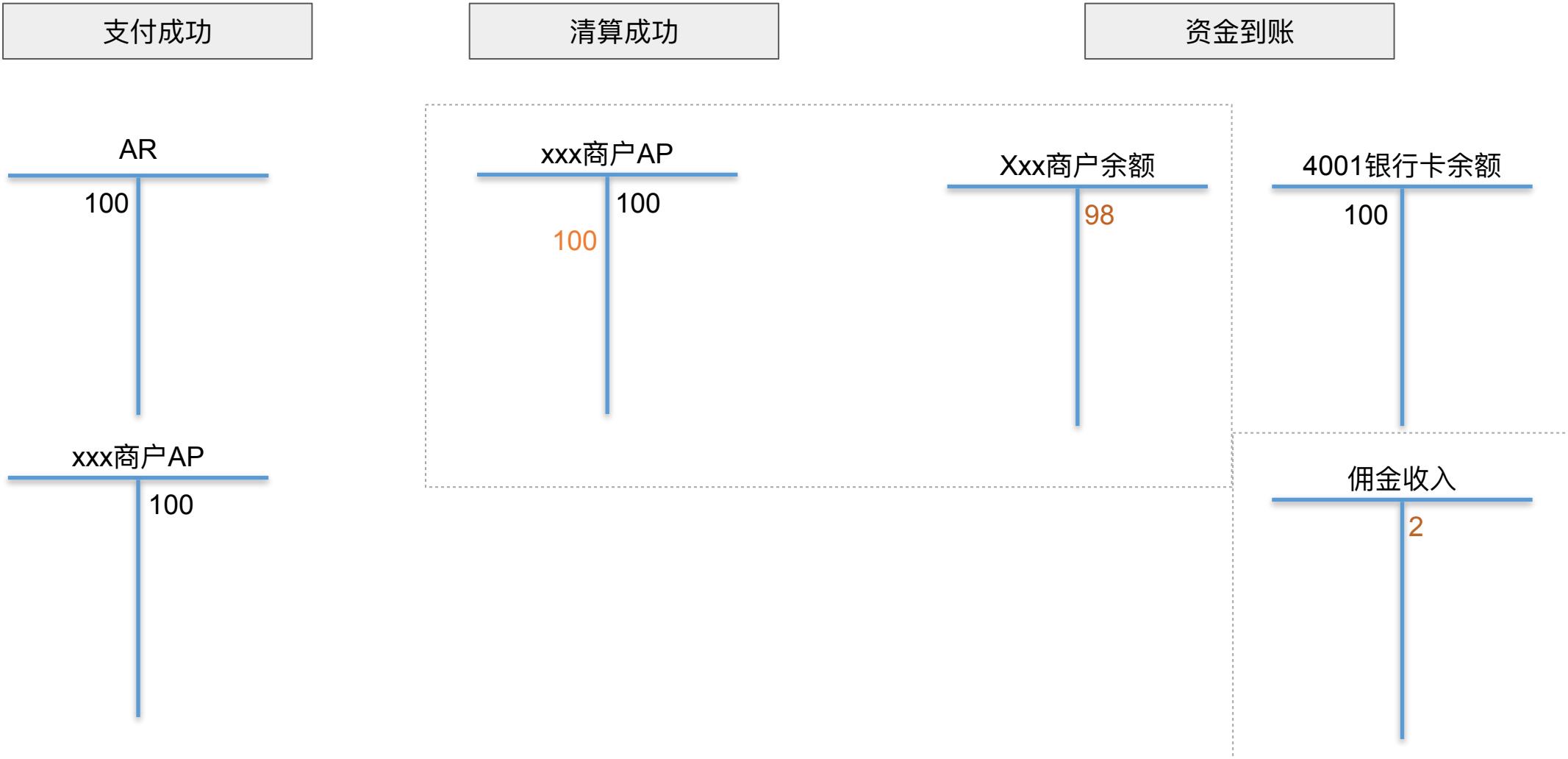


支付成功如何过渡到最后

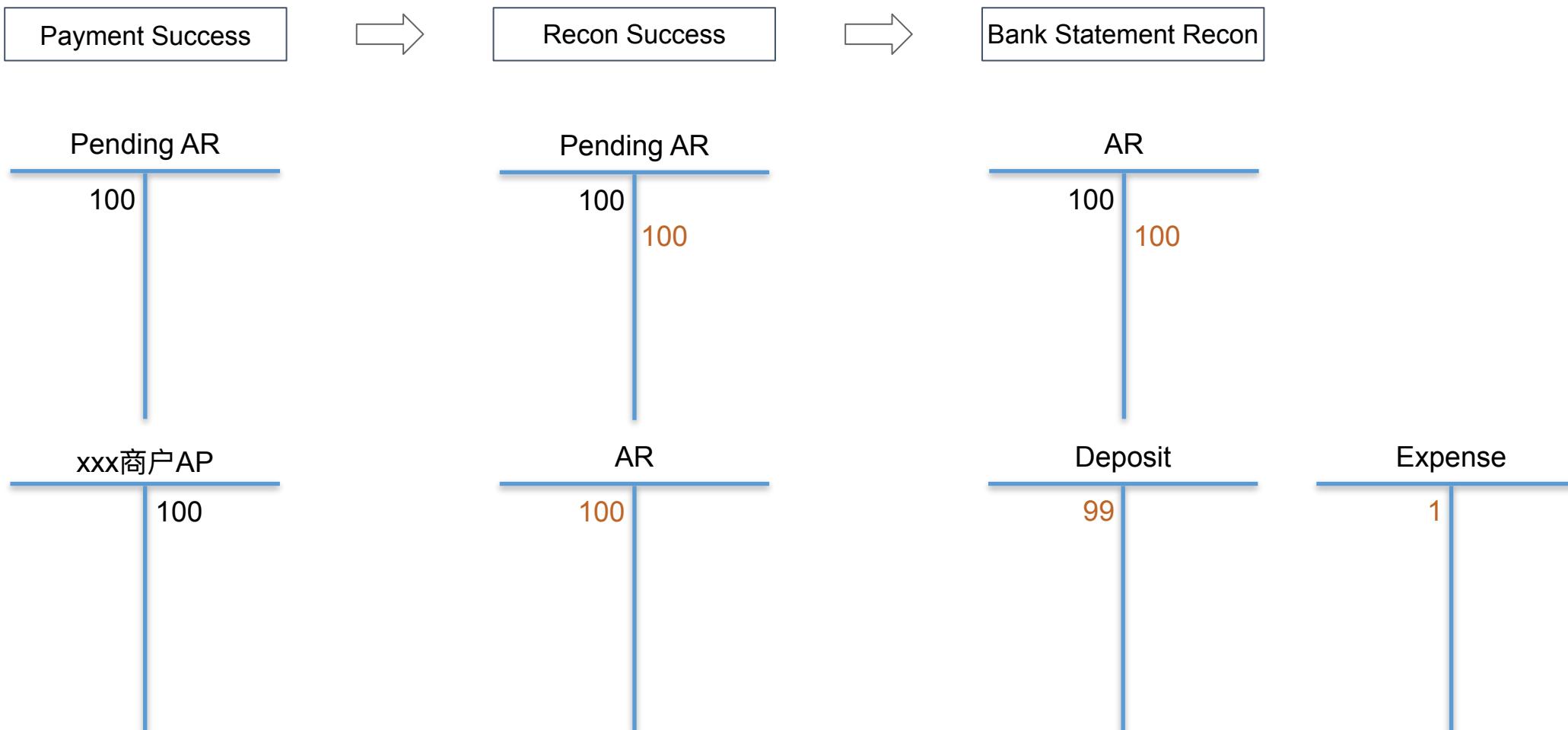




清算负责厘清和商户的债权债务关系

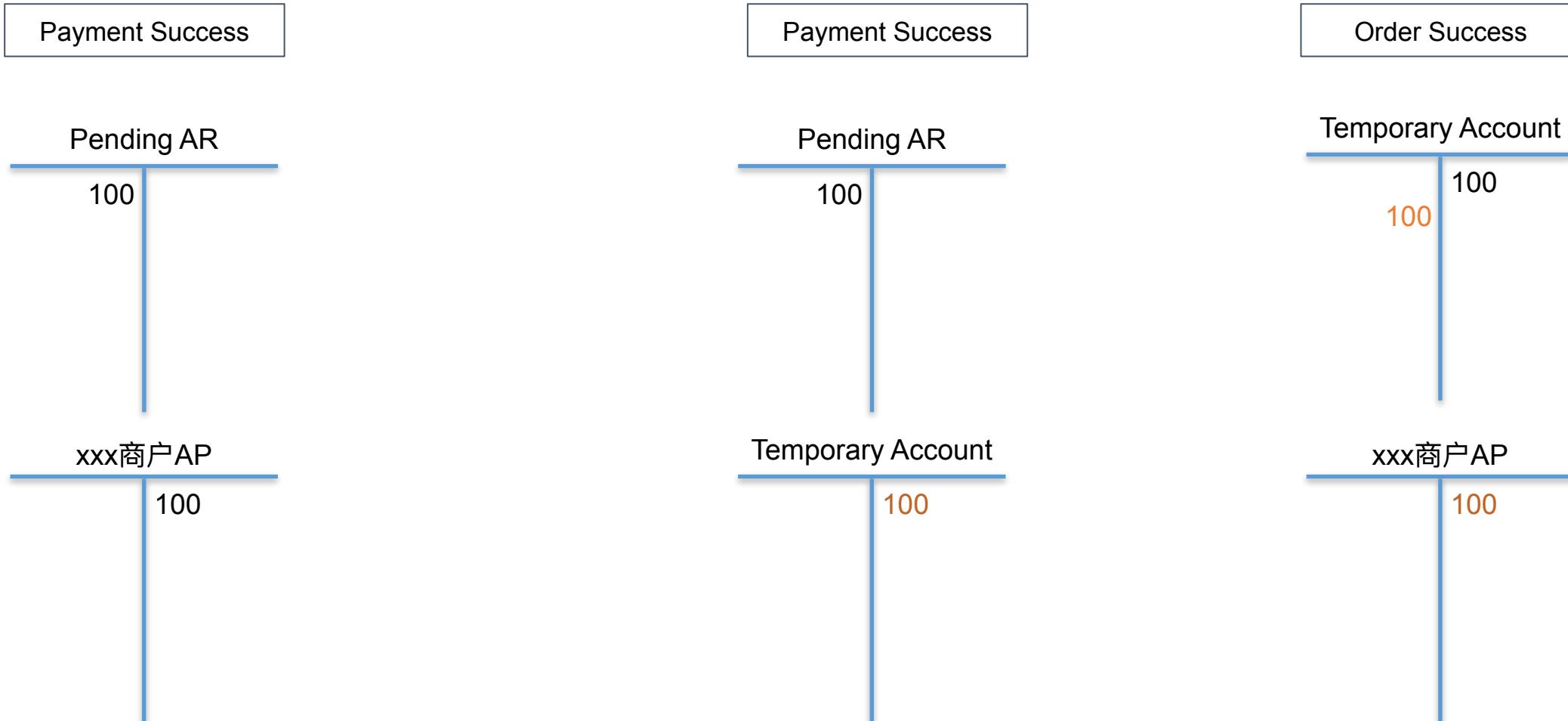


对账负责核实和渠道/收单行的债权债务关系





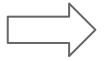
支付成功和履约成功不是同一瞬间完成的



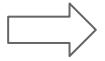


Virtual Fund flow 收单虚拟资金流

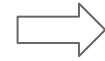
Payment Success



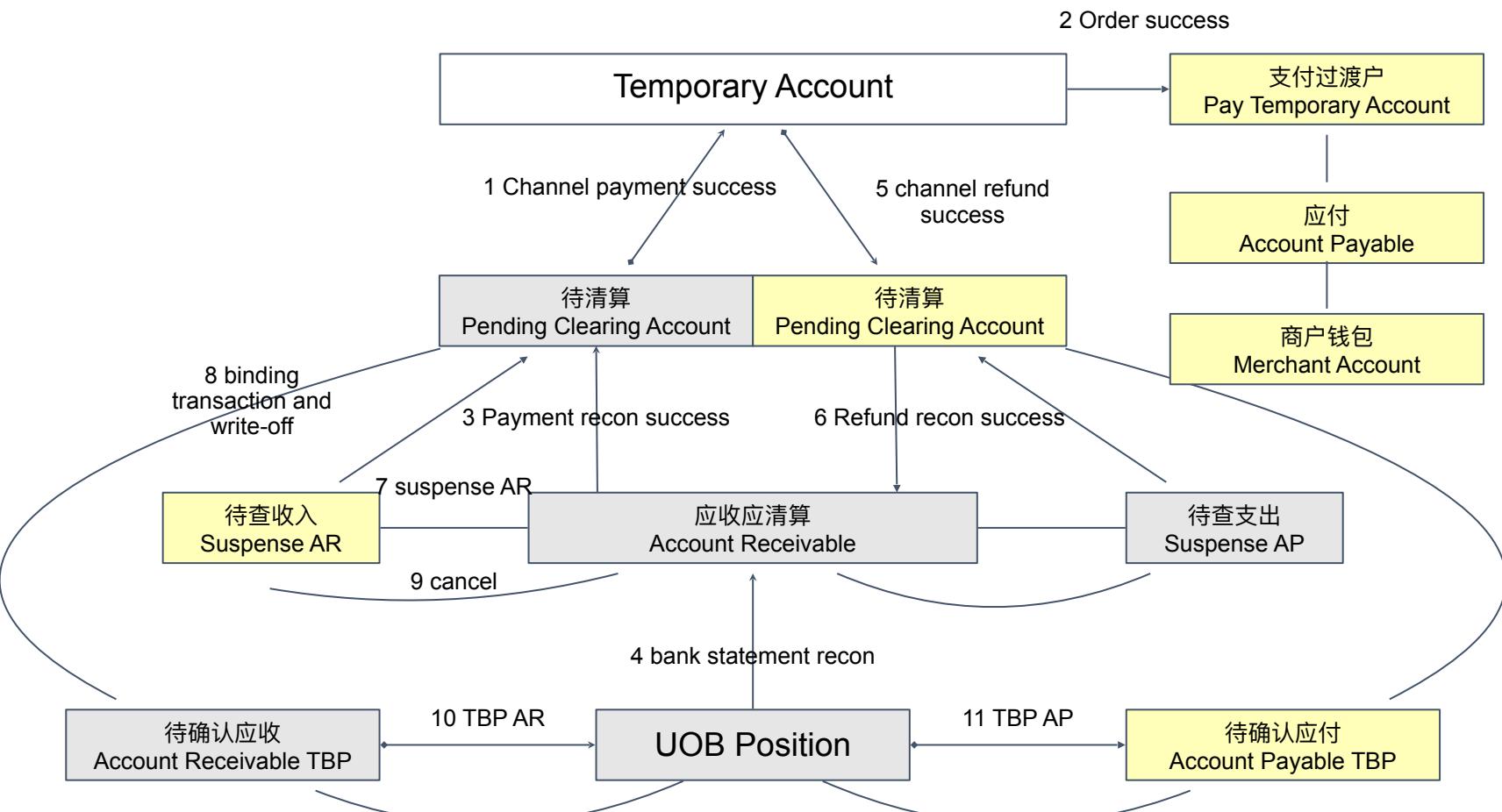
Order Success



Clearing Success



Settlement Success



Action	Account	Dr	Cr
1 channel payment success	-temporary account +pending clearing account	100	100
2 order success	-temporary account -pay temporary account	100	100
3 payment recon success	+pending clearing account +account receivable	100	100
4 bank statement recon	+account receivable +uob position	100	100
5 channel refund success	-temporary account -pending clearing account	100	100
6 refund recon success	+pending clearing account +Account receivable	100	100
7 suspense AR	+account receivable -suspense AR	100	100
8 binding transaction and write-off	-suspense AR +Pending clearing account	100	100
9 cancel suspense AR	+account receivable -suspense AR	100	100
10 TBP AR	+account receivable +uob position +AR TBP	90 10	100
11 TBP AP	+account receivable +uob position -account payable TBP	120	100 20

TBP:to be processed; AR:Account Receivable; AP:Account Payable

Private & Confidential



核算的方案不是一成不变的，也没有标准答案，只有最适合当下的技术能力的提升也能反映到核算方案的精细化上



Make the fund flow more **a**ccurate, **S**ecure and **e**fficient
让我们的资金更加准确、安全、高效的流转



Thanks