

A world without blockchain

28 December 2016 :: 33C3

Mark van Cuijk :: @phedny

This talk is not about politics

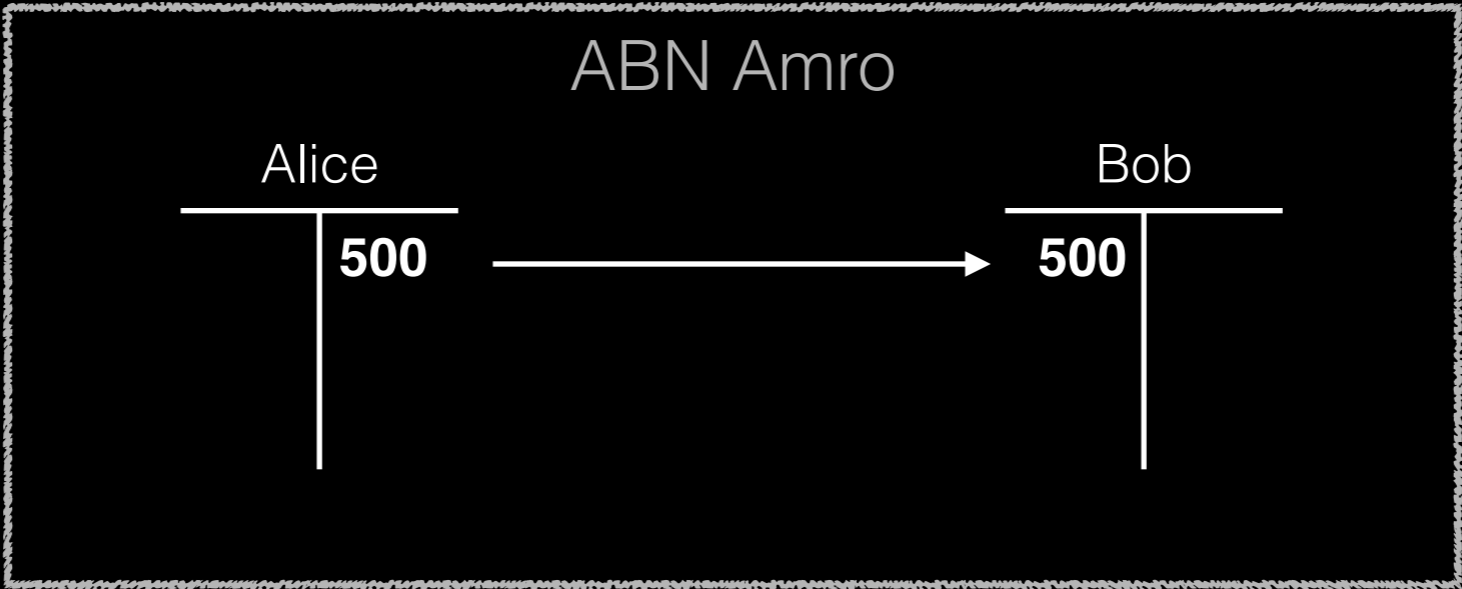
Banks have departments

Payment department

Risk averse

Financial model

Book transfer



ABN Amro

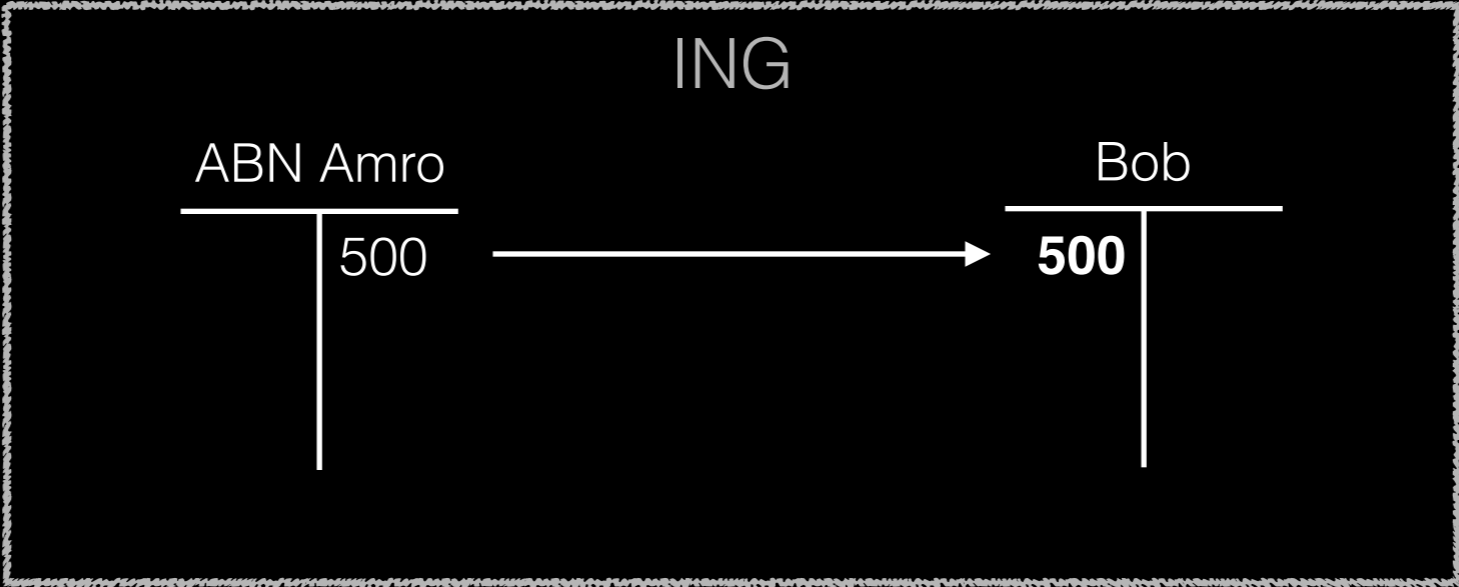
Alice

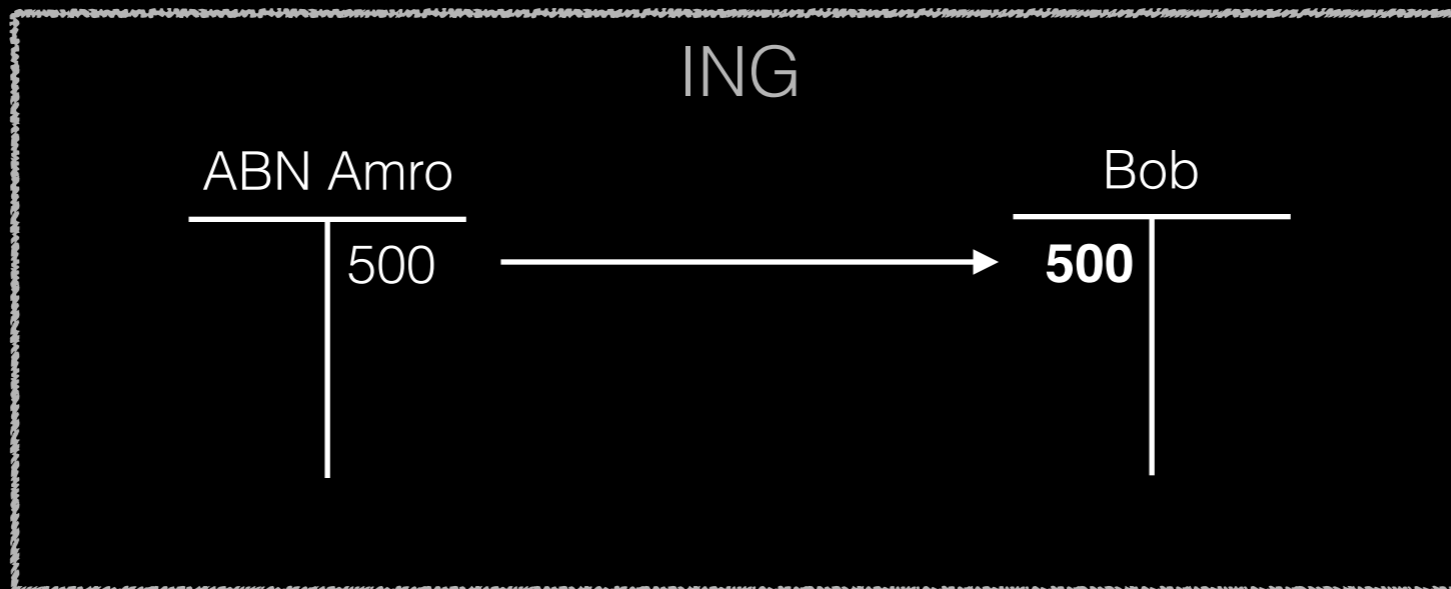
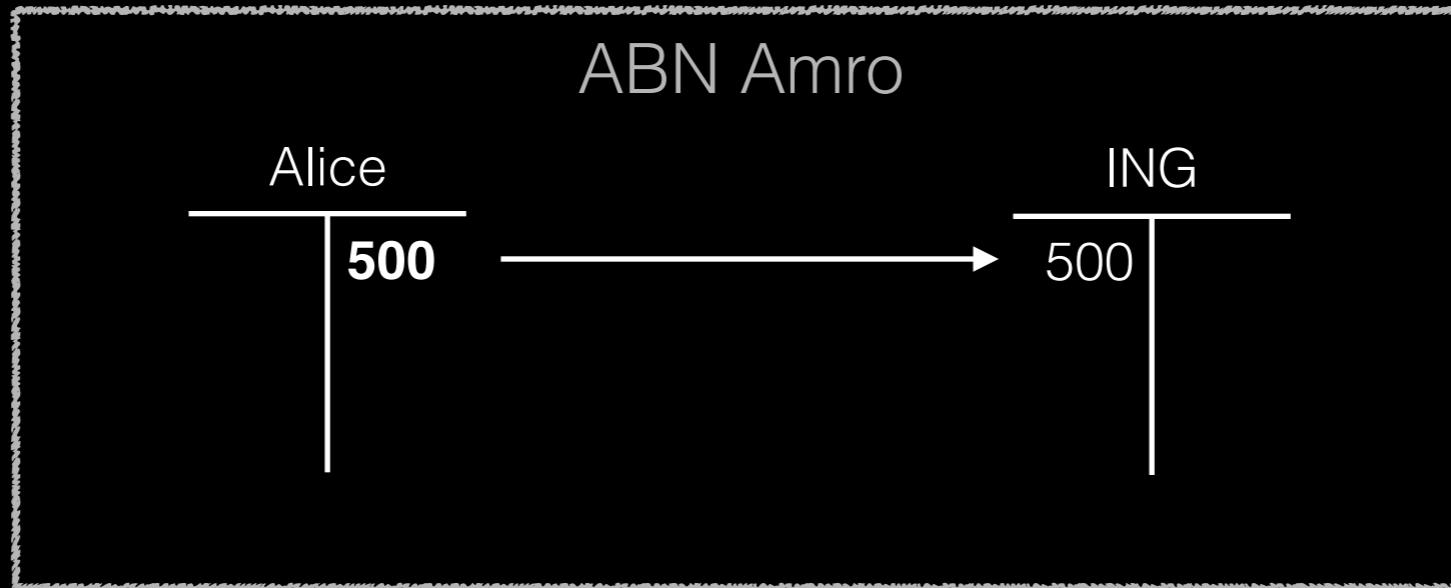
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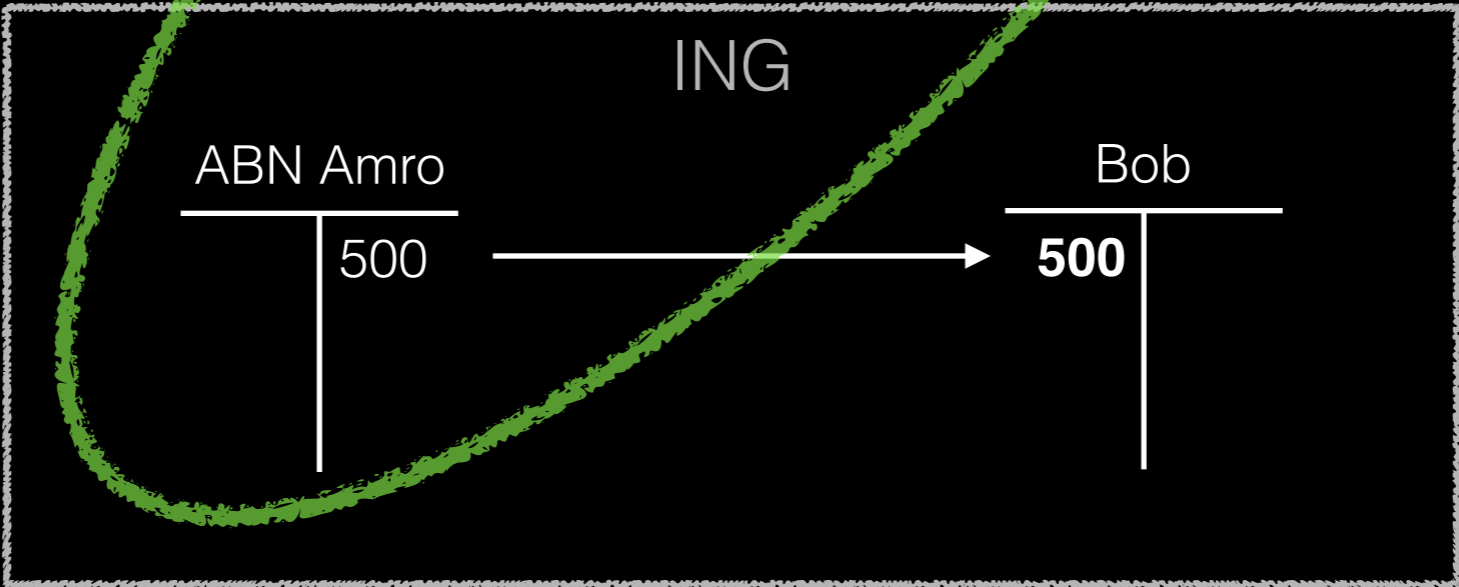
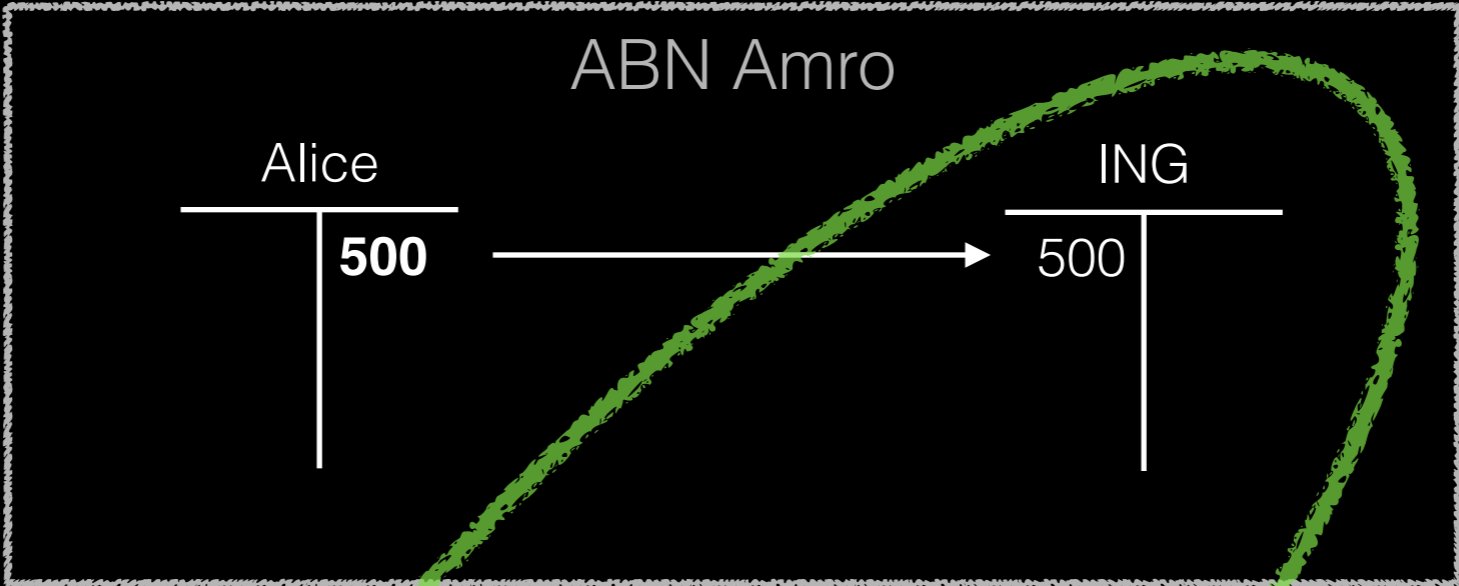
ING

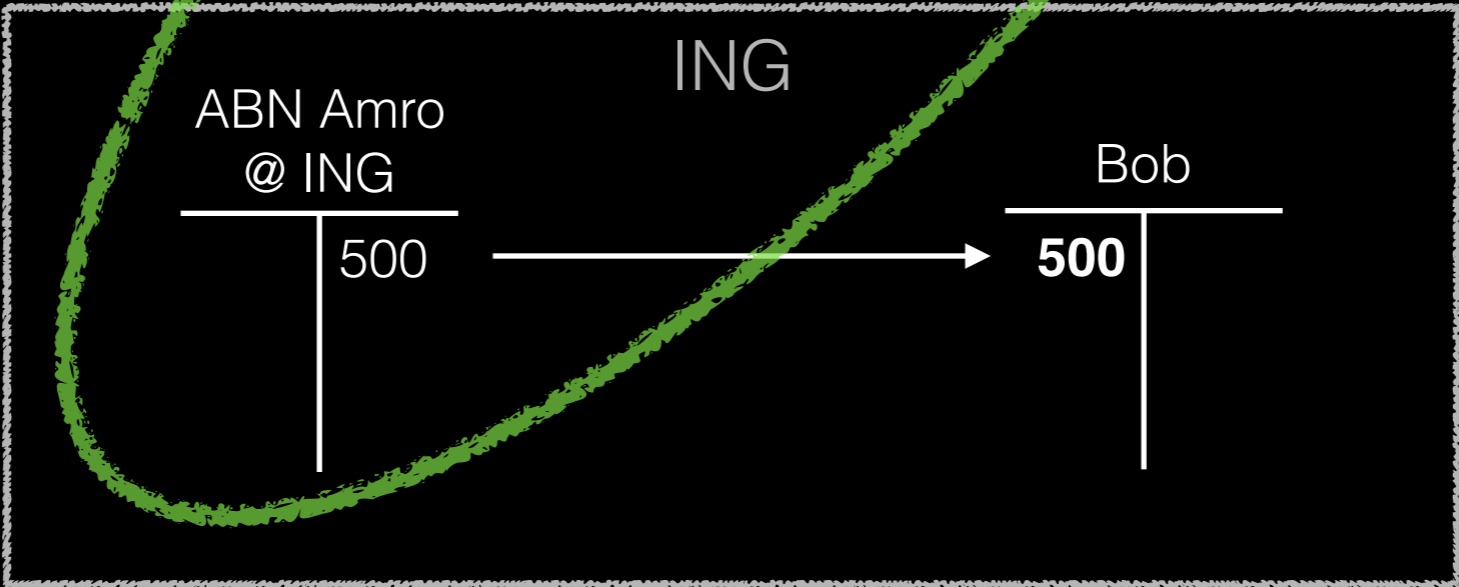
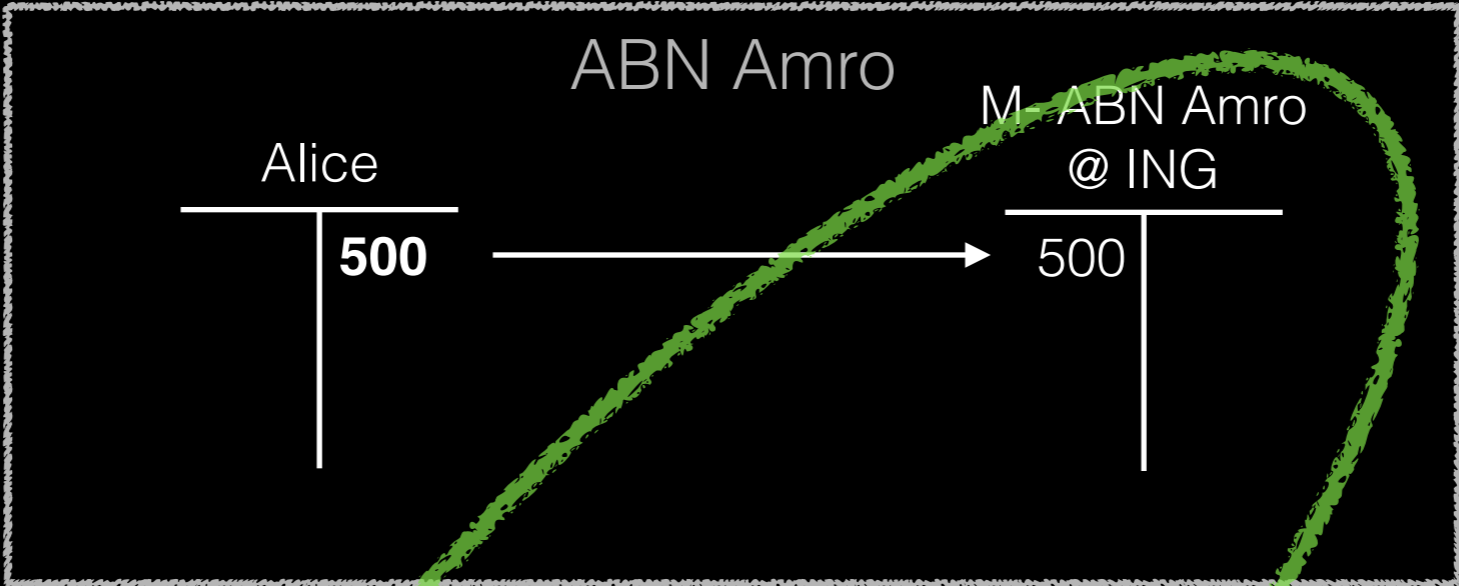
Bob

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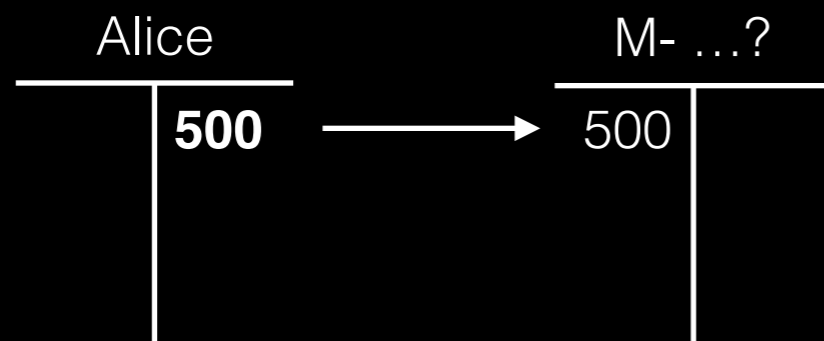




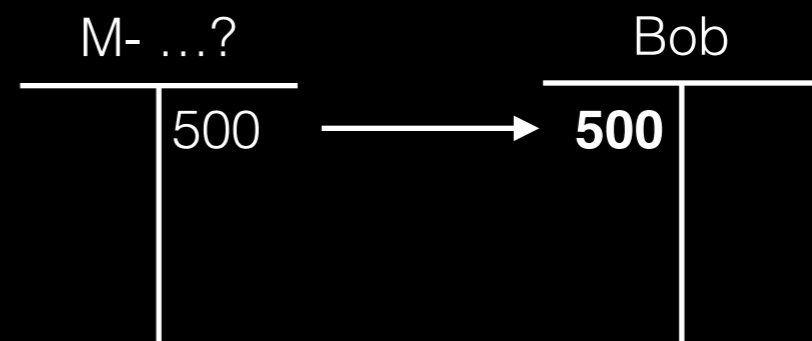


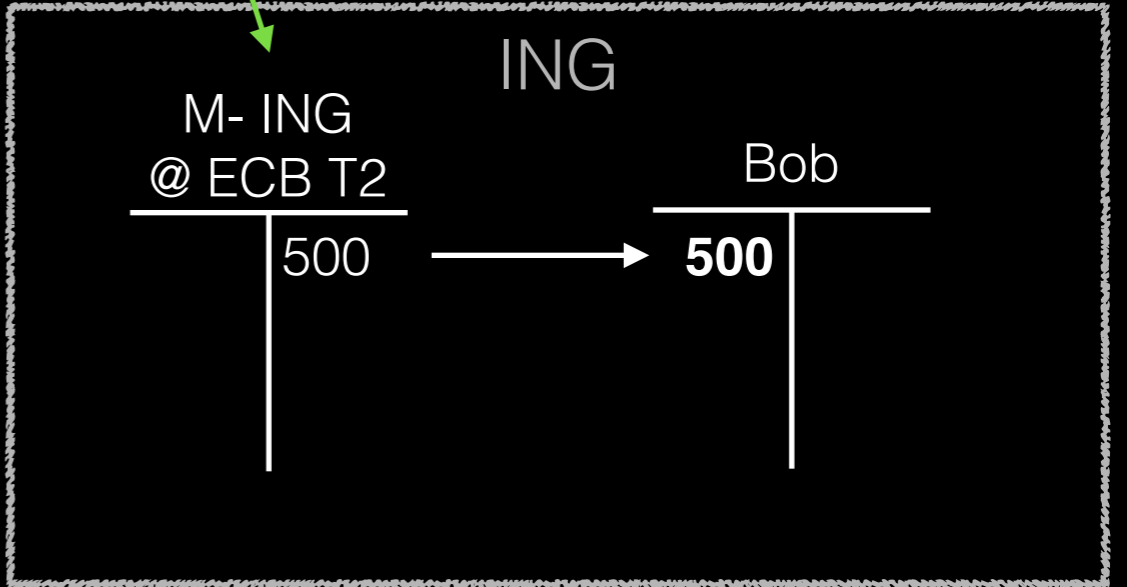
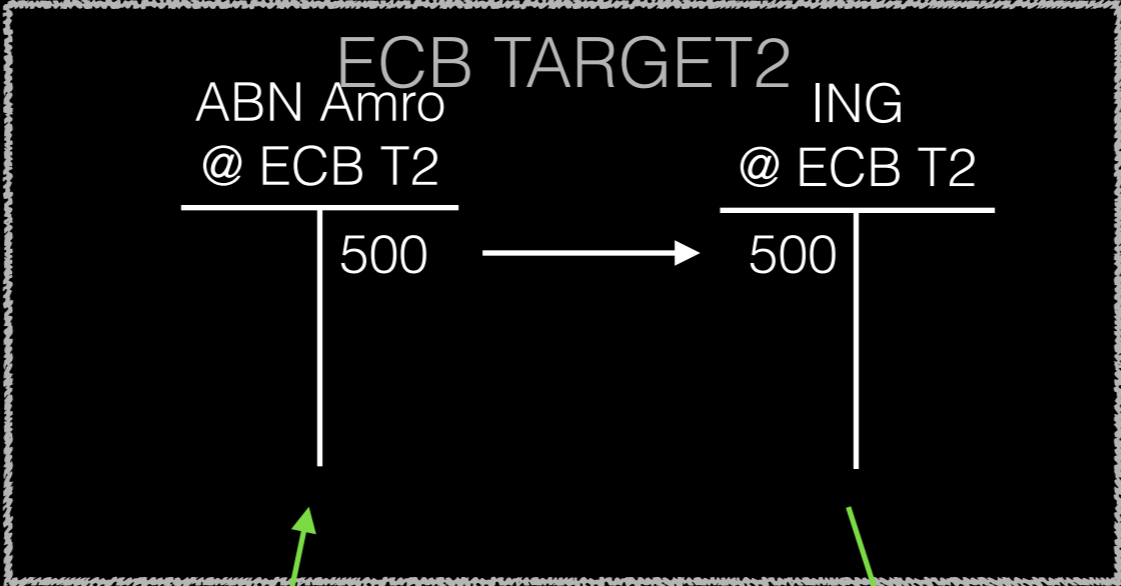
Risk averse

ABN Amro



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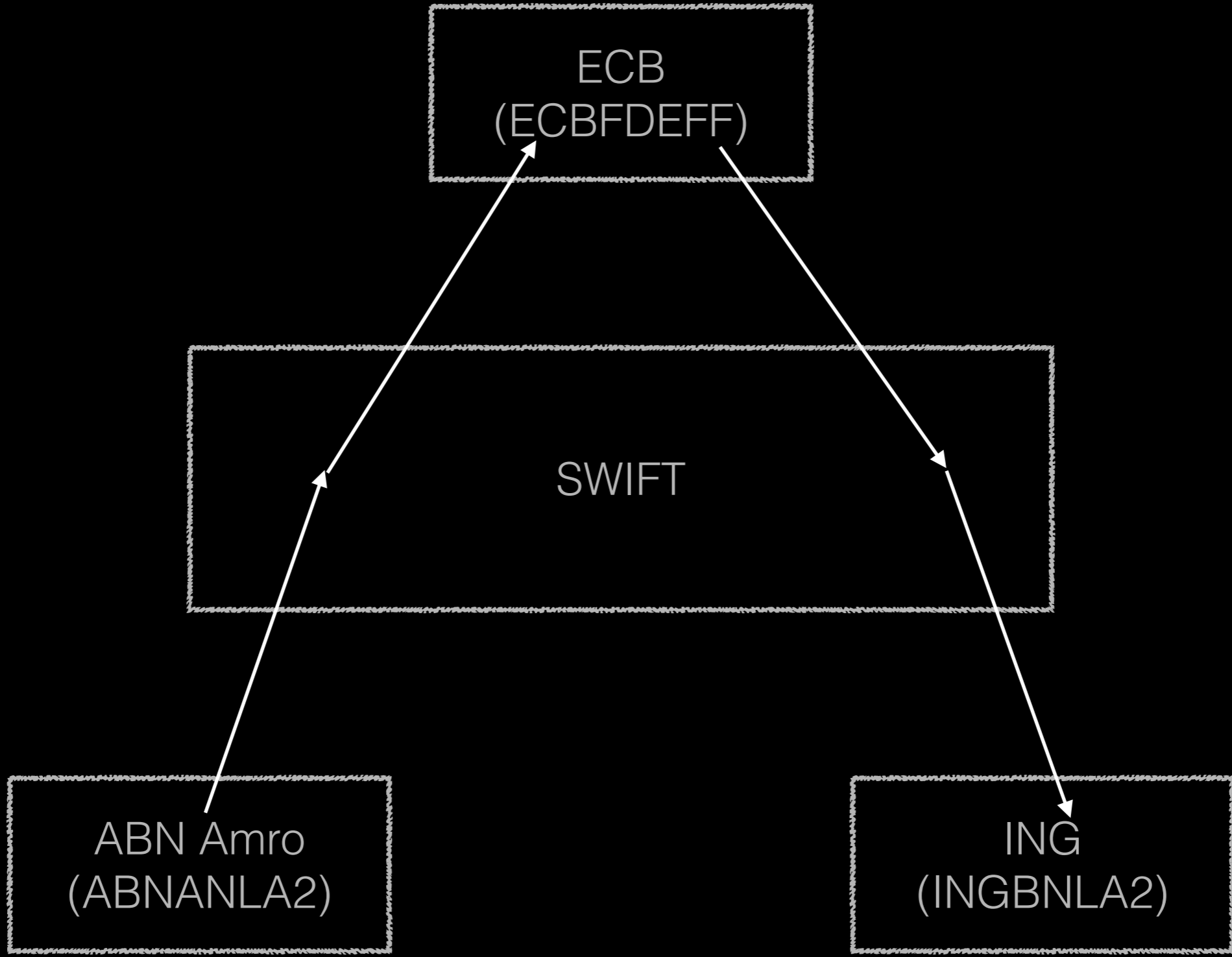


Interbank messaging

SWIFT

Society for Worldwide Interbank Financial Telecommunication

Communication network



Message definitions

MT and MX

MT for Message Type

MTxxx

MT103, MT202, MT910, ...

MX in XML

PACS.008, PACS.009, CAMT.054, ...

MT103

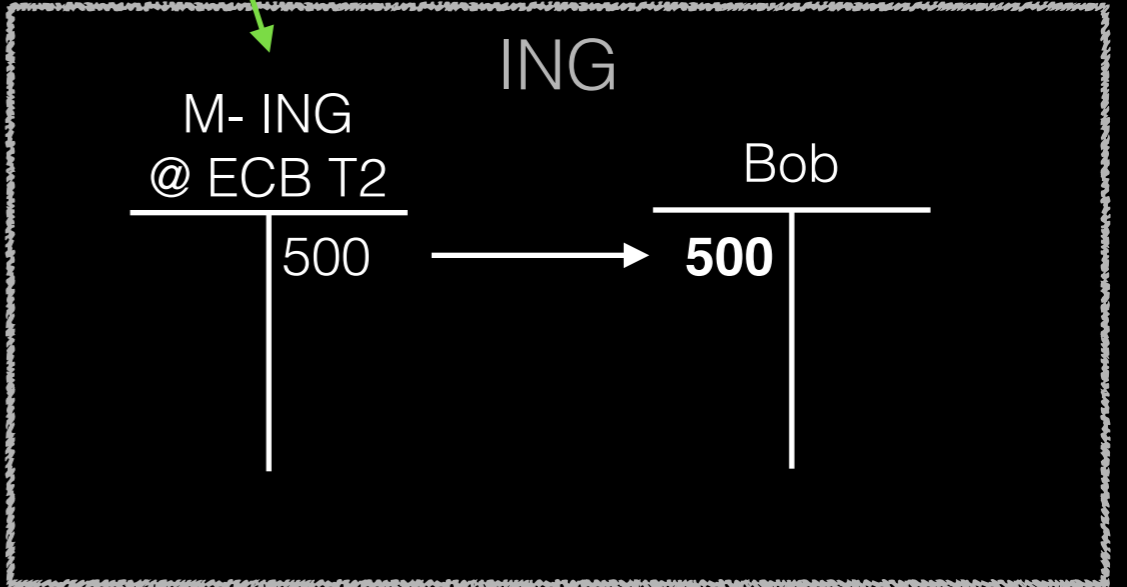
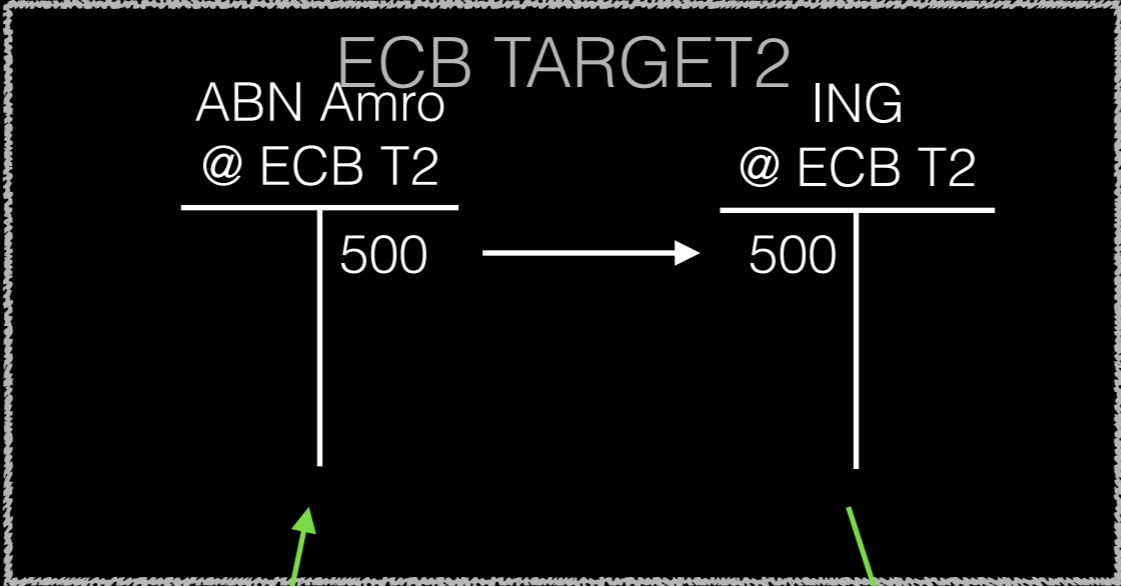
Single Customer Credit Transfer

{1:F01AAAAGRA0AXXX0057000289}{2:O1030919010321BBBBGRA0AXXX00570001710103210920N}{4:
:20:5387354
:23B:CRED
:23E:PHOB/20.527.19.60
:32A:000526USD1101,50
:33B:USD1121,50
:50K:FRANZ HOLZAPFEL GMBH
VIENNA
:52A:BKAUATWW
:59:723491524
C. KLEIN
BLOEMENGRACHT 15
AMSTERDAM
:71A:SHA
:71F:USD10,
:71F:USD10,
:72:/INS/CHASUS33
-}{5:{MAC:75D138E4}{CHK:DE1B0D71FA96}}

PACS.008

FItoFICustomerCreditTransfer

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    </SttlmInf>
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    <Cdtr><Nm>Name SEPA Creditor</Nm></Cdtr>
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```



TARGET2 is RTGS

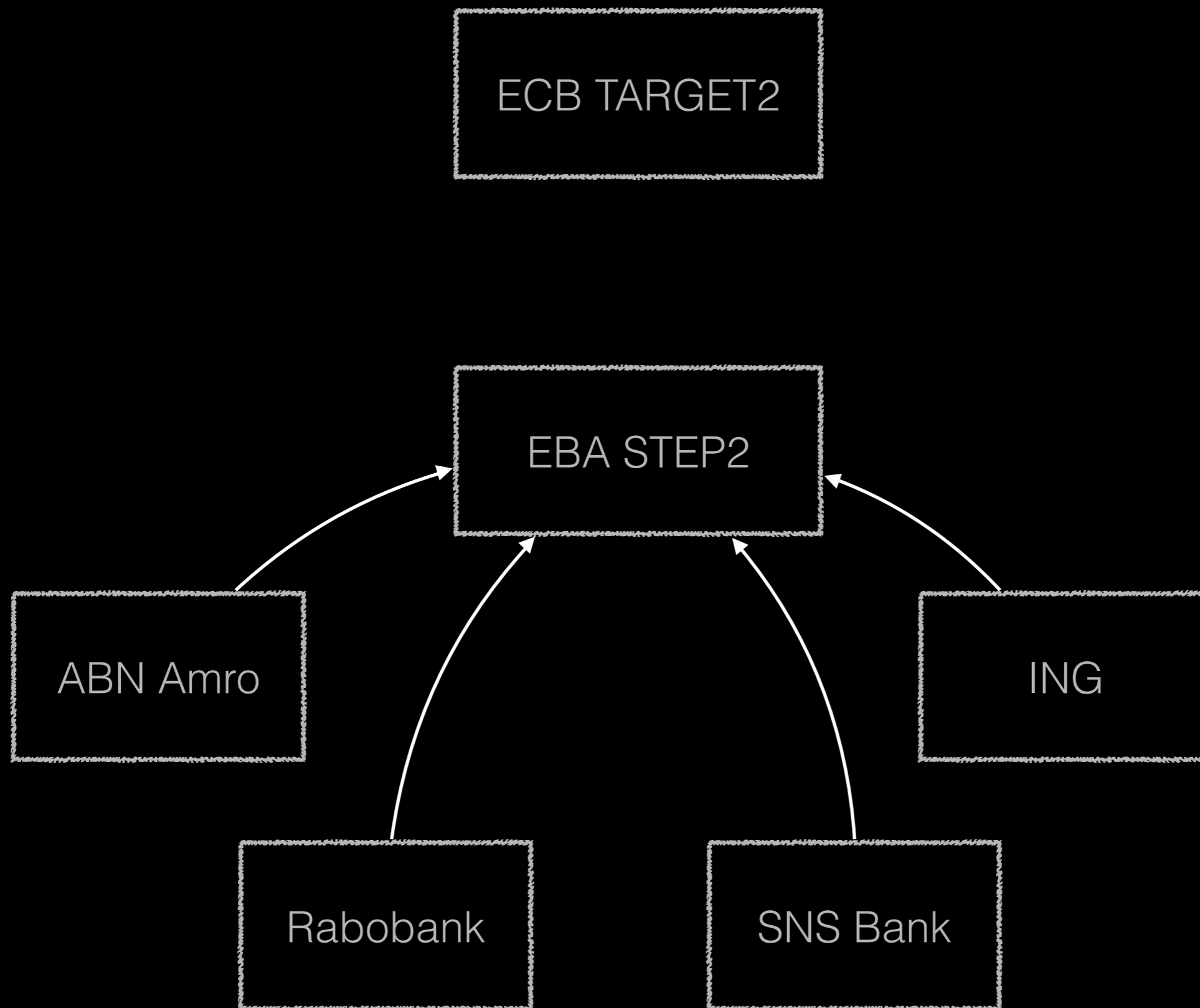
Real-Time Gross Settlement system

TARGET2 transactions are expensive

Option A: EUR 150/month + EUR 0.80/transaction

Option B: EUR 1875/month + EUR (0.125 ~ 0.60)/transaction

Netting batches



ECB TARGET2

EBA STEP2



ABN Amro

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Rabobank

SNS Bank

ECB TARGET2

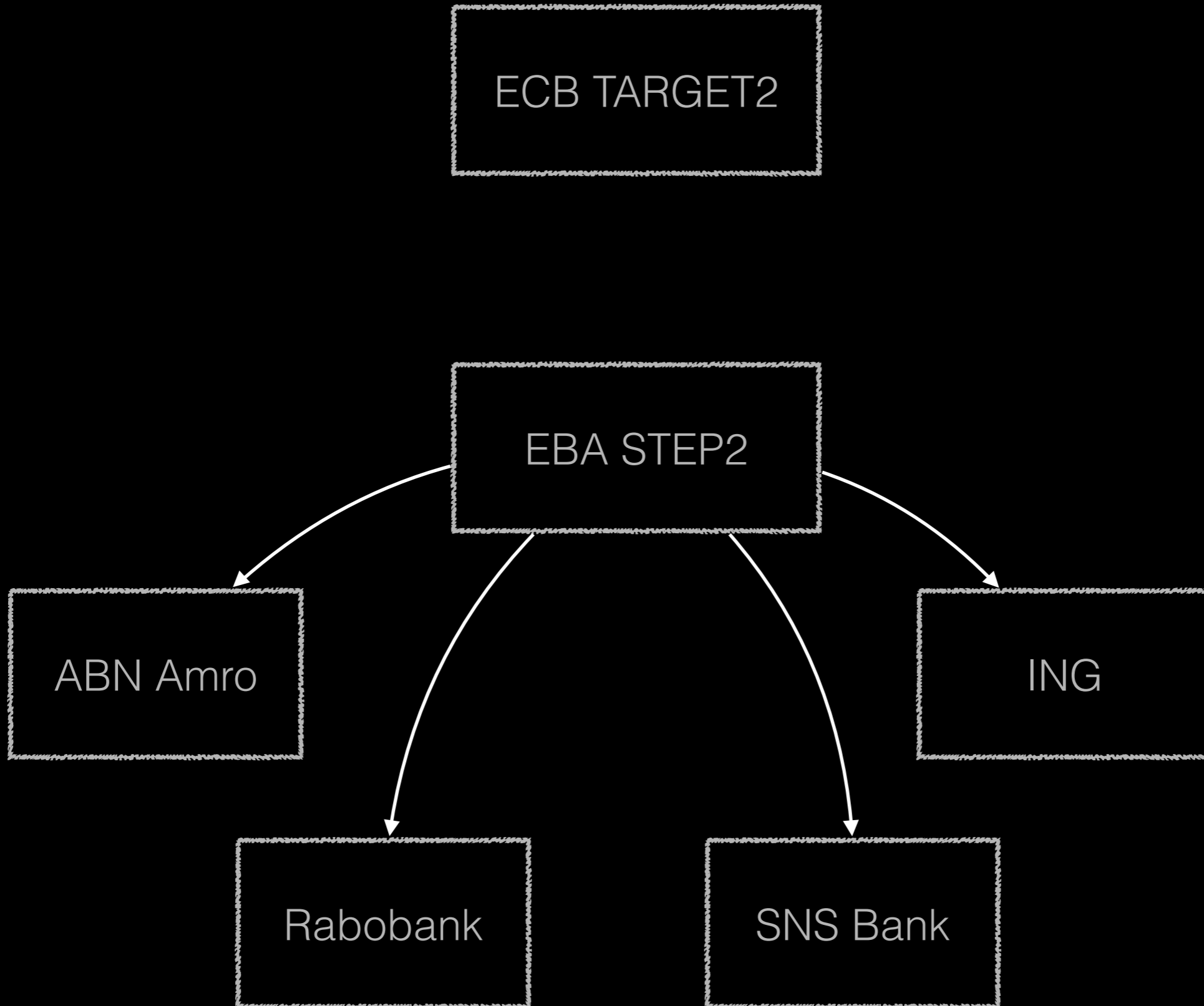
EBA STEP2

ABN Amro

ING

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SNS Bank



ECB TARGET2

EBA STEP2

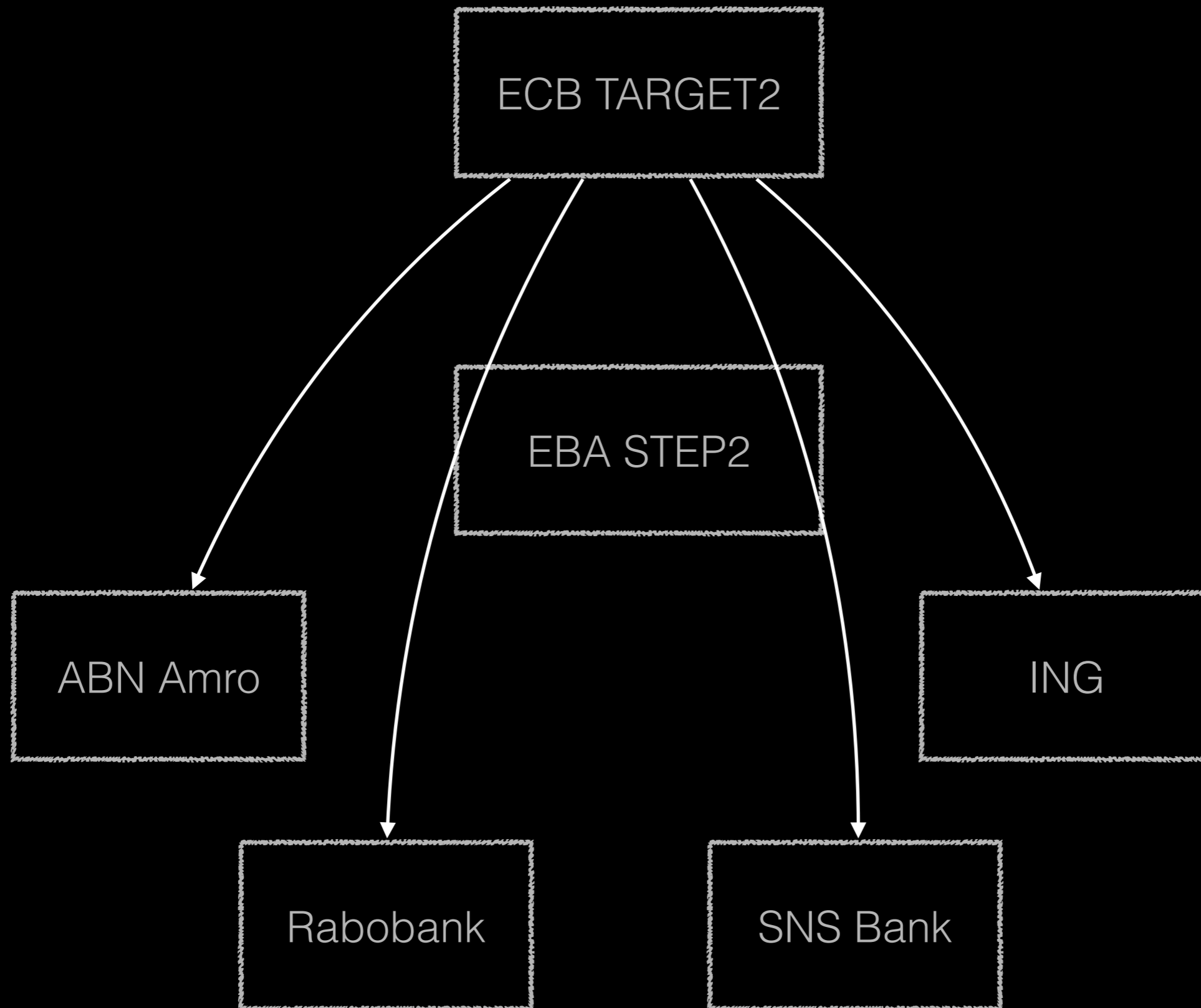
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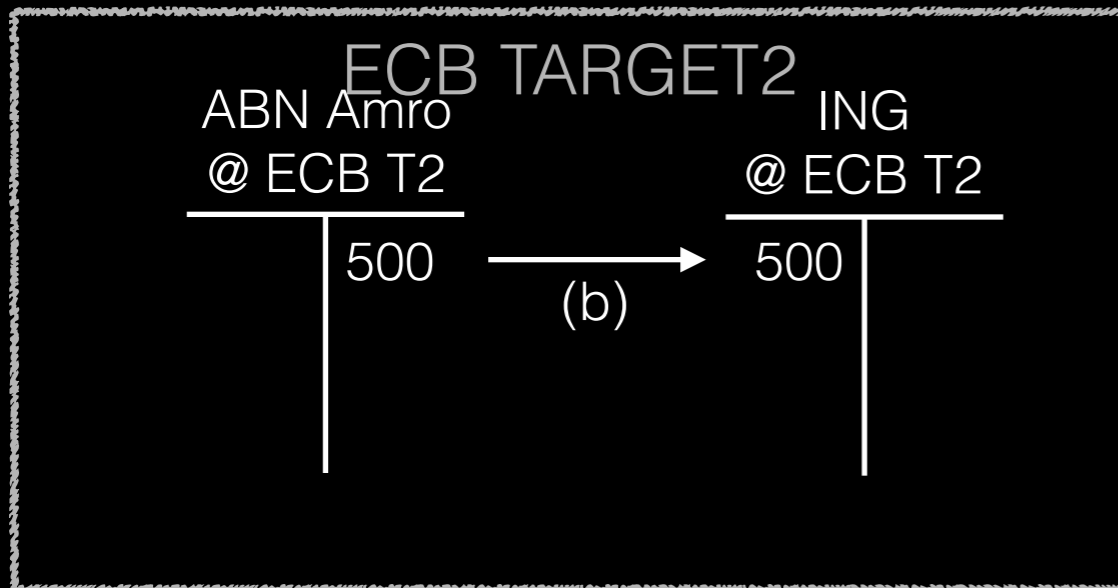
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Rabobank

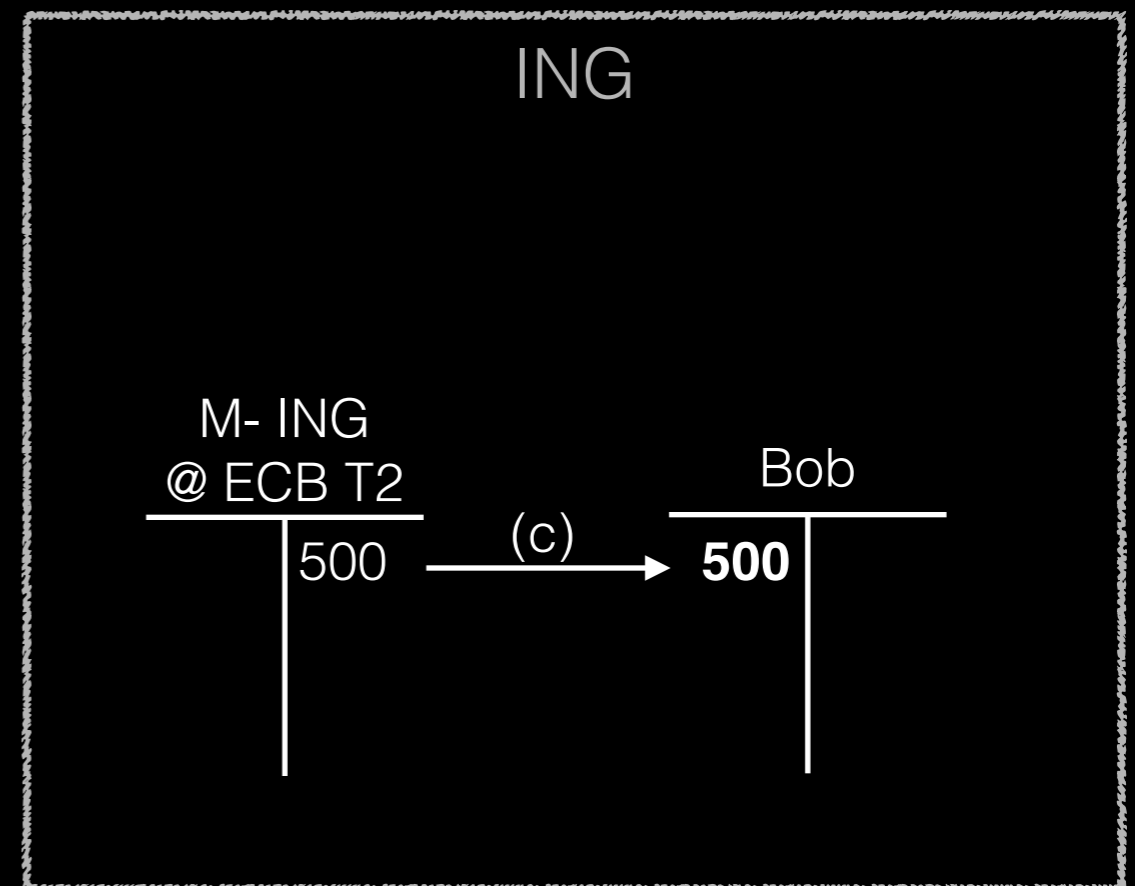
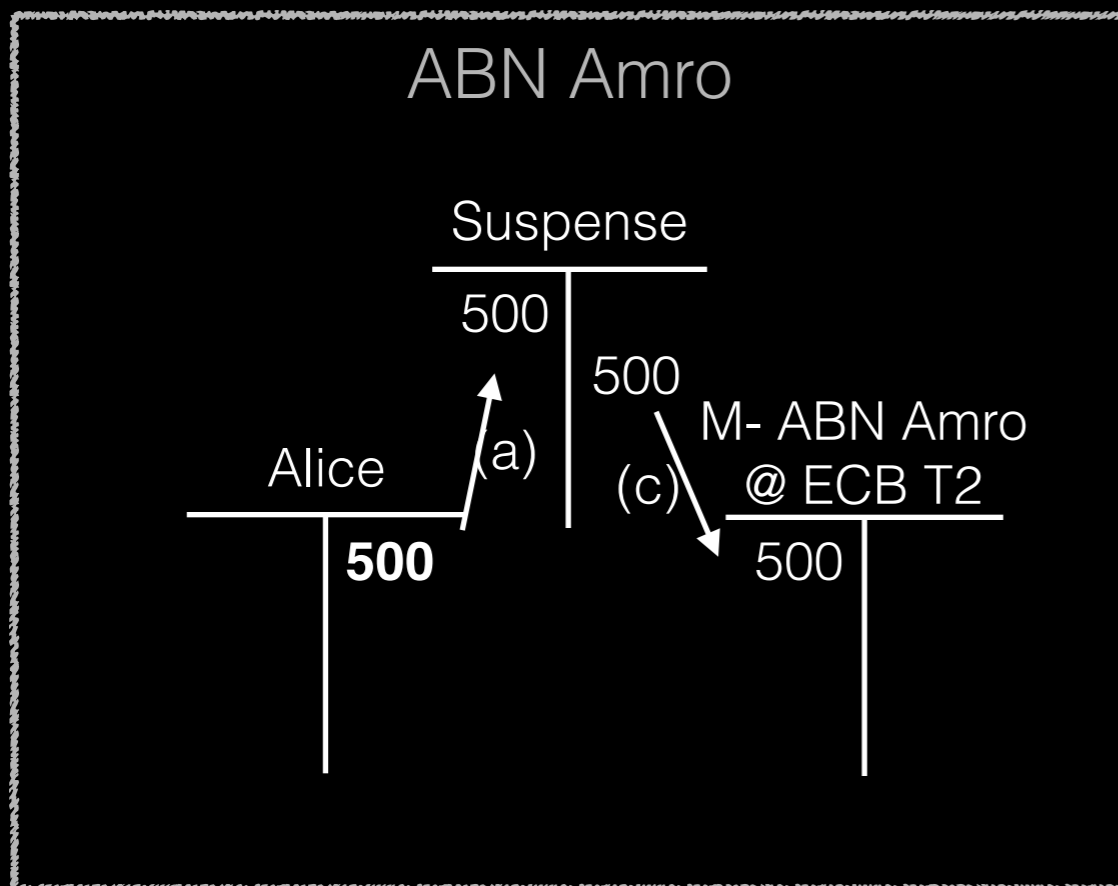
SNS Bank







- (a) After customer submits payment order, set money aside
- (b) Clearing house instructs T2 to transfer central bank money
- (c) After banks receive batch from clearing house and notification from T2, credit beneficiary accounts



International cross-currency payments

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STRENGTH IN DEPTH ACROSS THE WORLD.

For details see pages 181/182

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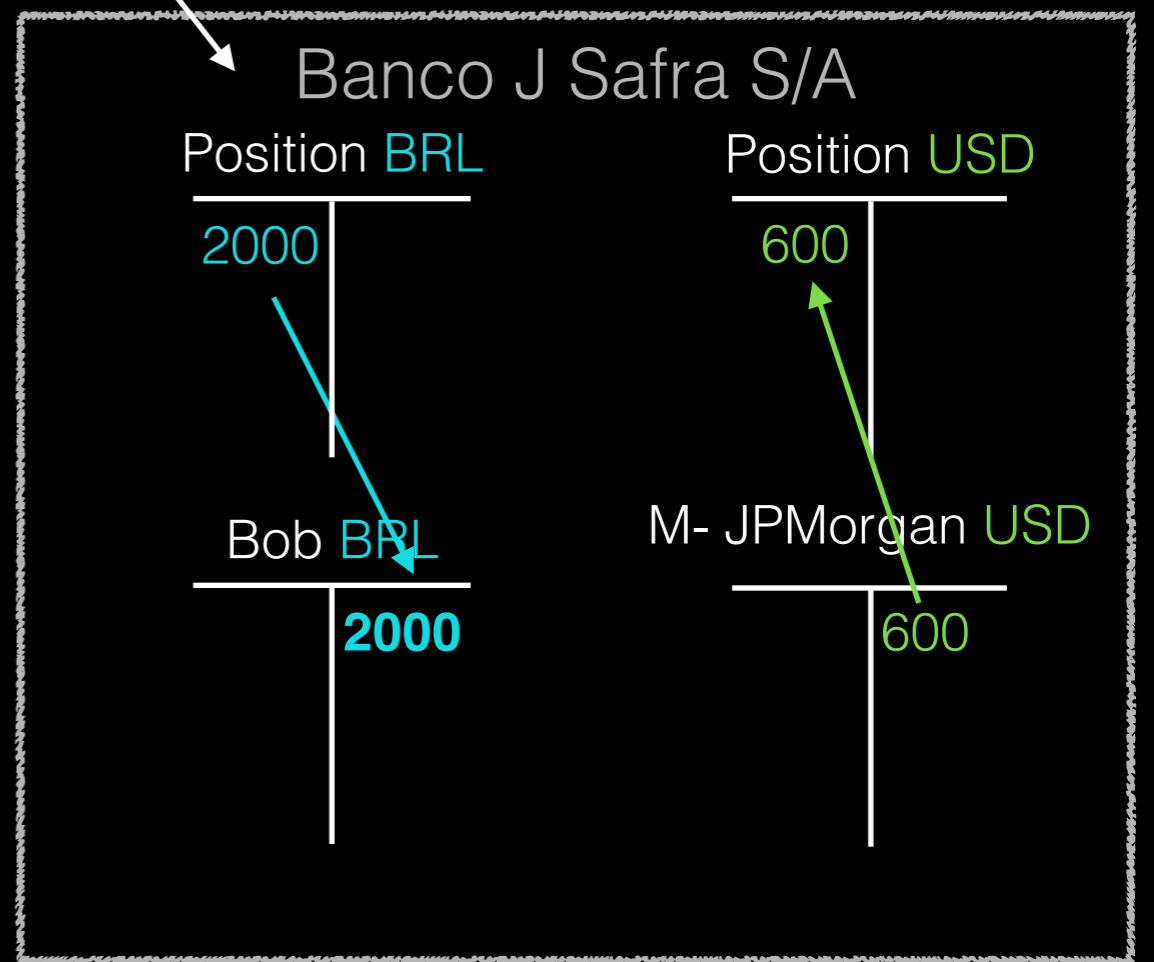
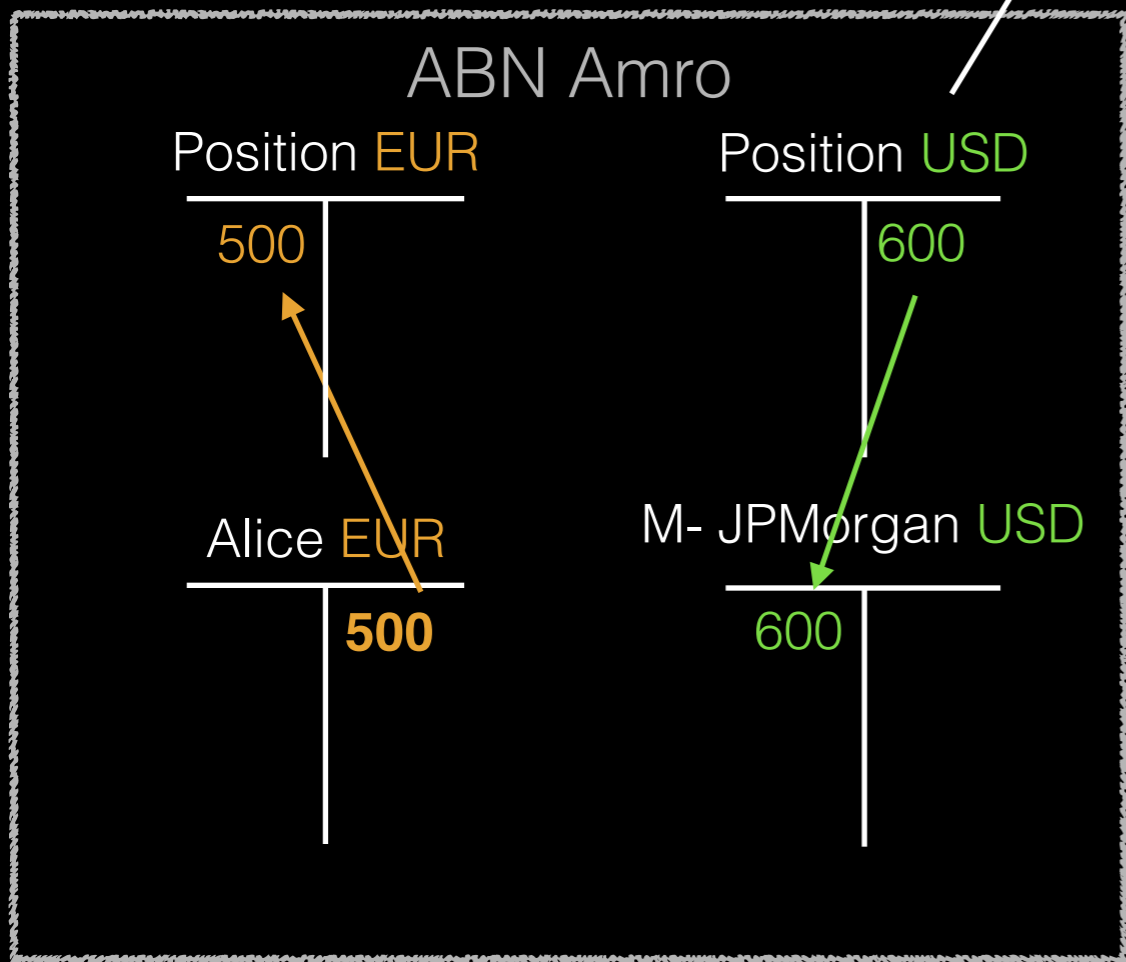
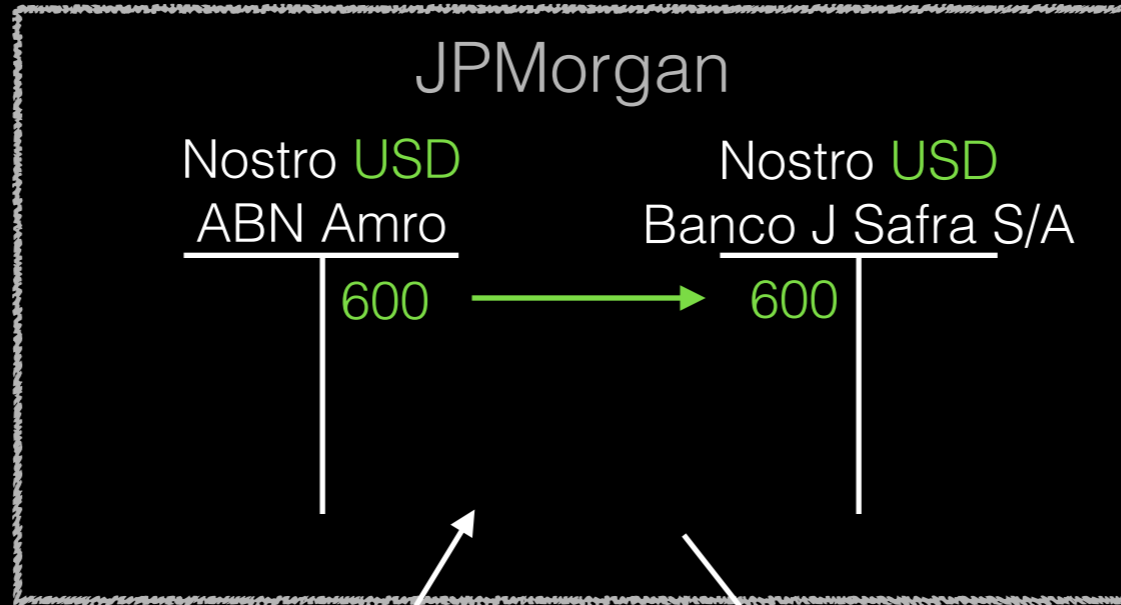
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