

The logo consists of the word "GLORY" in white, uppercase, sans-serif font, centered within a dark blue square with a white border. The background of the slide is a close-up, slightly blurred image of a stack of US one hundred dollar bills, with a pen resting on top of them.

GLORY

Cash 4.0

The Evolution of the Cash Cycle

May 2019

Zennan Green

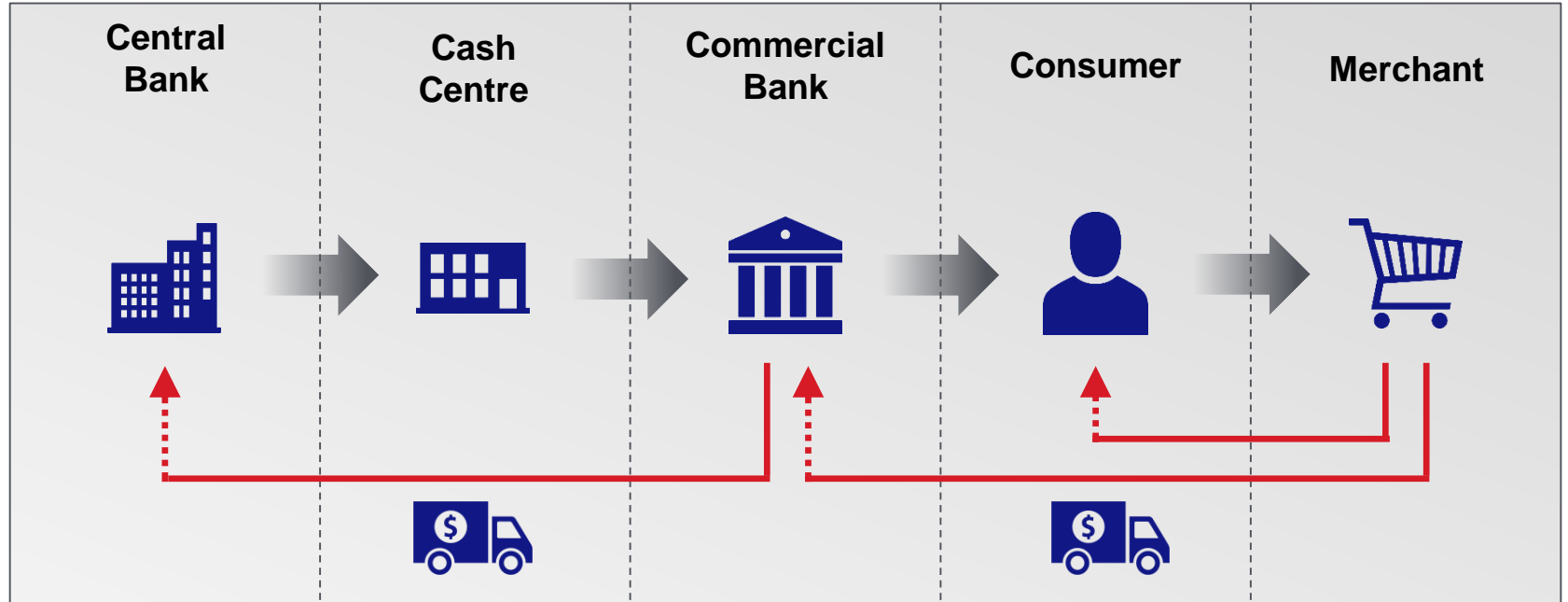
Global Strategic Marketing | GLORY



500,000,000,000



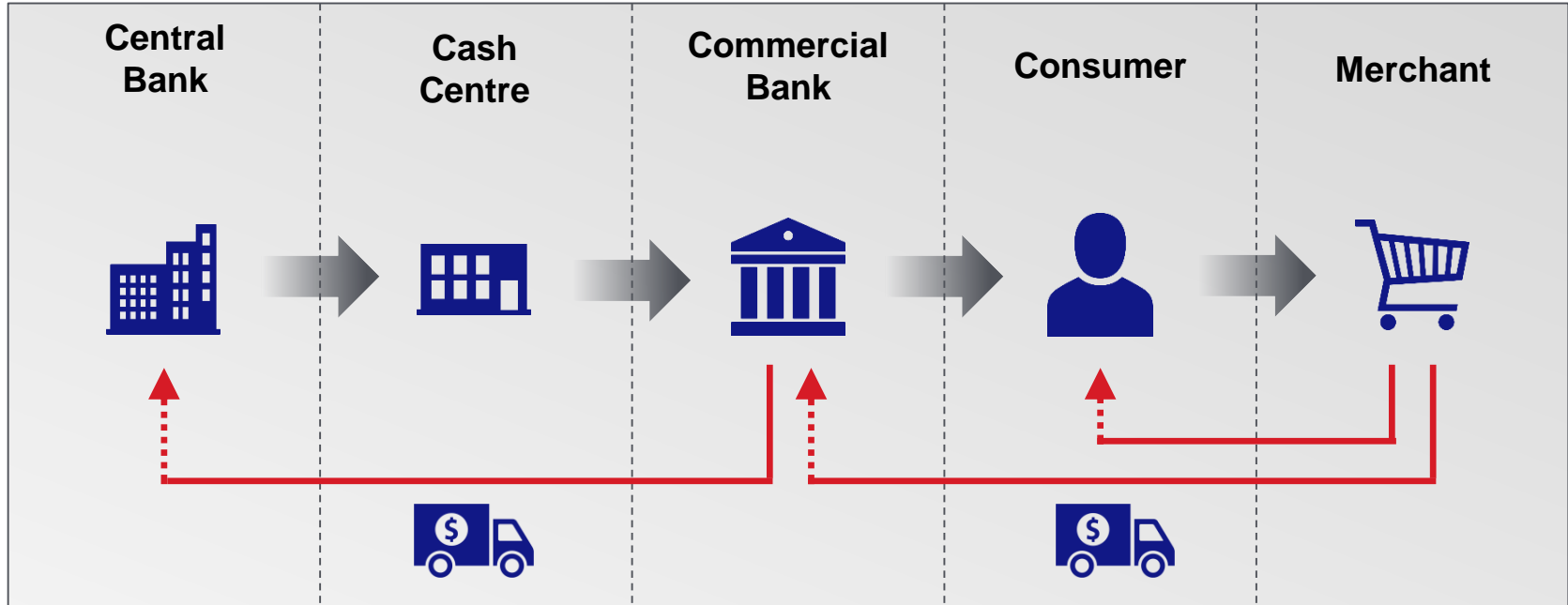
THE SECRET LIFE OF CASH: THE CASH CYCLE





200

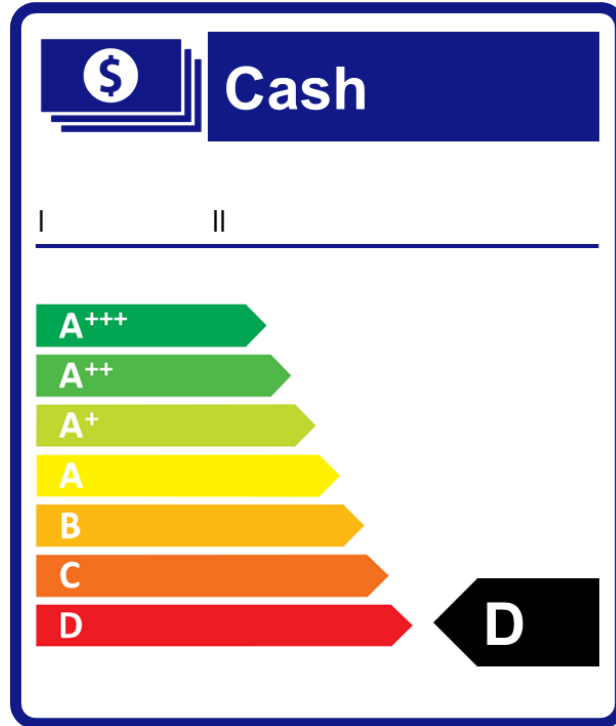
MORE THAN 100 TRILLION MOVEMENTS PER YEAR



500,000,000,000 bank notes x 200 movements per year

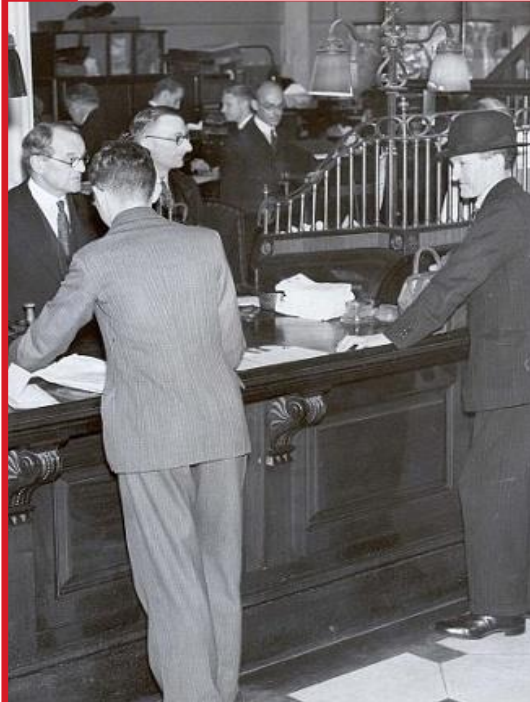


A FUNDAMENTALLY INEFFICIENT SYSTEM



CASH 0.0: A MANUAL APPROACH - THE MODERN CASH CYCLE BEGINS

Cash 0.0



Level of
Automation



Efficiency



Cash
Distribution



Central
Bank



Commercial
Bank



1900 – 1950's

EARLY INNOVATION: AUTOMATION BEGINS



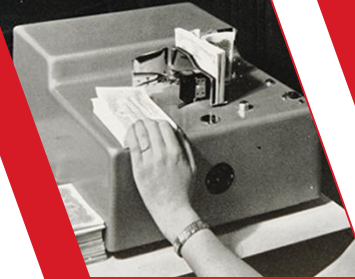
1896

First Coin
Dispenser



1950

Coin Counter



1957

First Banknote
Counting
Machine



1962

Coin Wrapper

CASH 1.0: BANKING CASH AUTOMATION BEGINS

Cash 1.0



Level of
Automation



Efficiency



Cash
Distribution



ATM



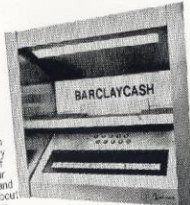
Commercial
Bank



1960's – 1980's

Barclaycash is anytime cash.

Now you can get up to £70 cash
24 hours a day, 7 days a week.



Thanks to Barclaycash you don't have to worry about running 'out of ready money' when our branches are closed and you can even keep your queueing at... well, when we're open. Barclaycash when you need it. To means '24/7 cash' when you need it. To draw £10 from your account, you simply tap out a personal code number, and receive a special voucher. If you need more money you

Just use more vouchers, we'll give you £10's worth and so on... it will be sent to you after every five transactions. And you can use them in any Barclays cash machine.

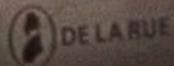
If you're not in a bank queue, it's another reason why you should come to Barclays. See your local Barclays for more info. A Barclaycash machine is now installed at:

**Barclays Bank,
48 Mutley Plain, Plymouth PL4 6LP
tel: Plymouth 69331.**

BARCLAYS

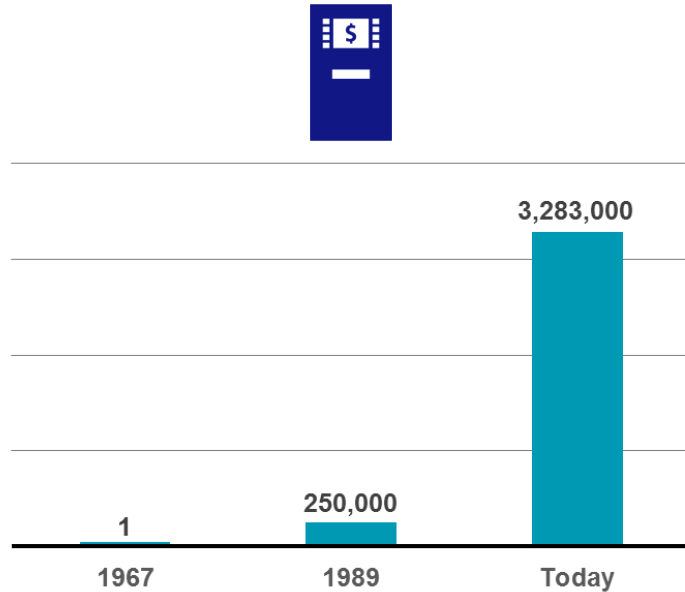
— we have ways to help you manage money better.

BARCLAYCASH

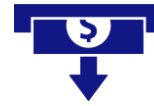


THE ATM IS NOT ALONE...

Number of ATM Installations



TCD Installations



100,000+
units

TCRs Installed in Banks



130,000
units

Note Counters

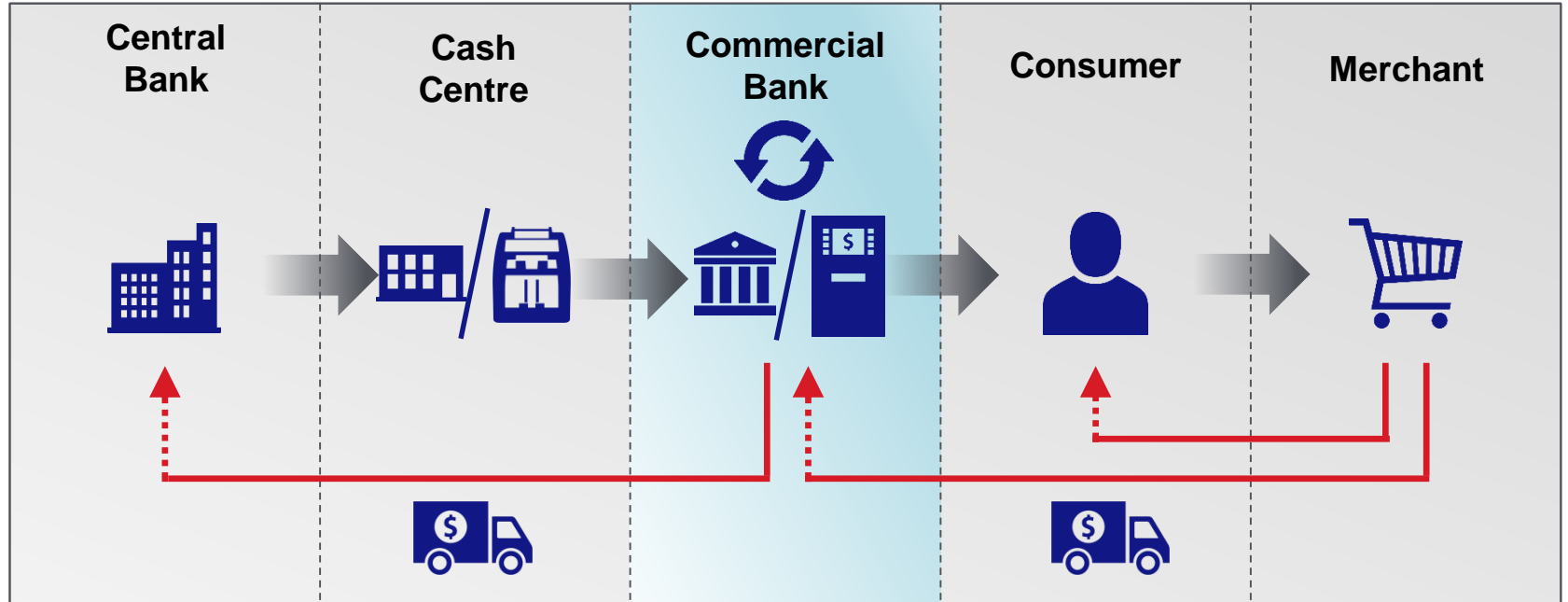


2,000,000+
units

Counting • Sorting • Volume • Convenience



CASH 1.0: RAPID RISE OF CASH AUTOMATION - GOOD FOR THE BANKS



CASH 2.0: CIT BUSINESS EXPANSION

Cash 2.0



Level of
Automation



Efficiency



Cash
Distribution



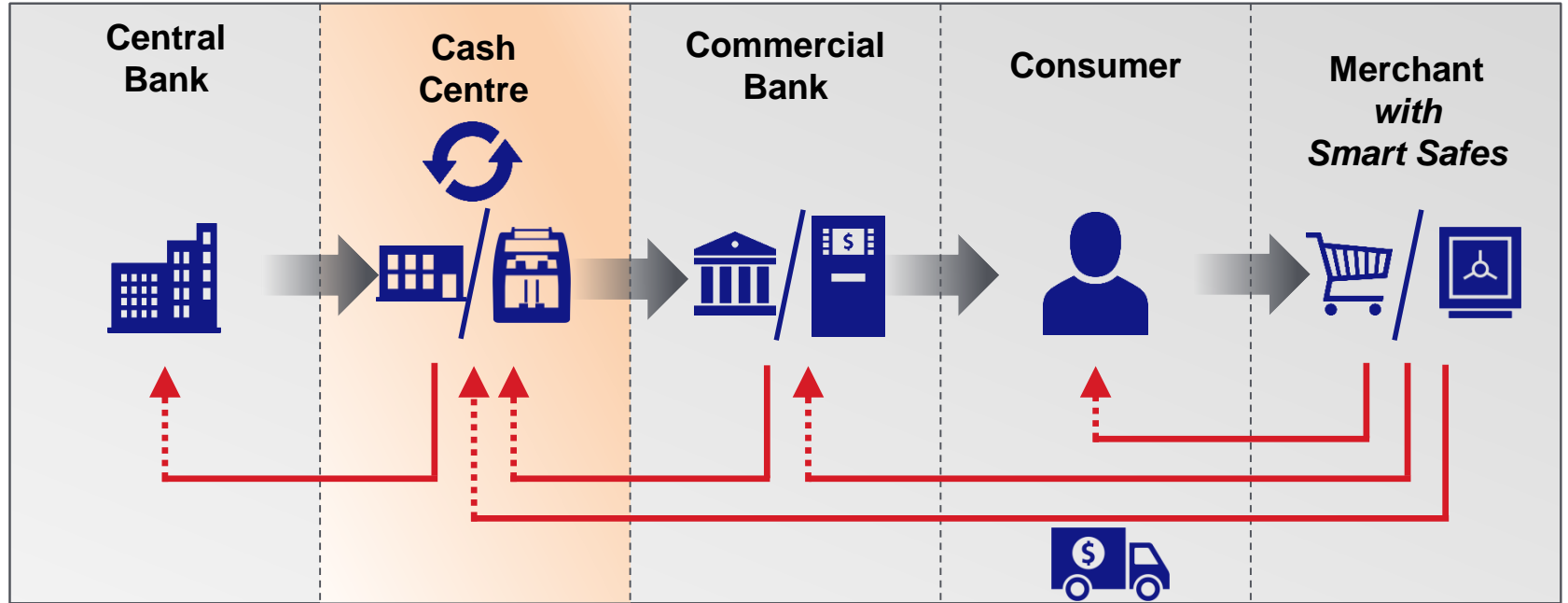
CiT



1990's




CASH 2.0: CITS EXPANDING THEIR MARKETS - GOOD FOR THE CITS






CASH 3.0: RETAIL AUTOMATION – MERCHANTS RECYCLING

Cash 3.0




Level of Automation

★★★★★




Efficiency


★★★★★



Cash Distribution



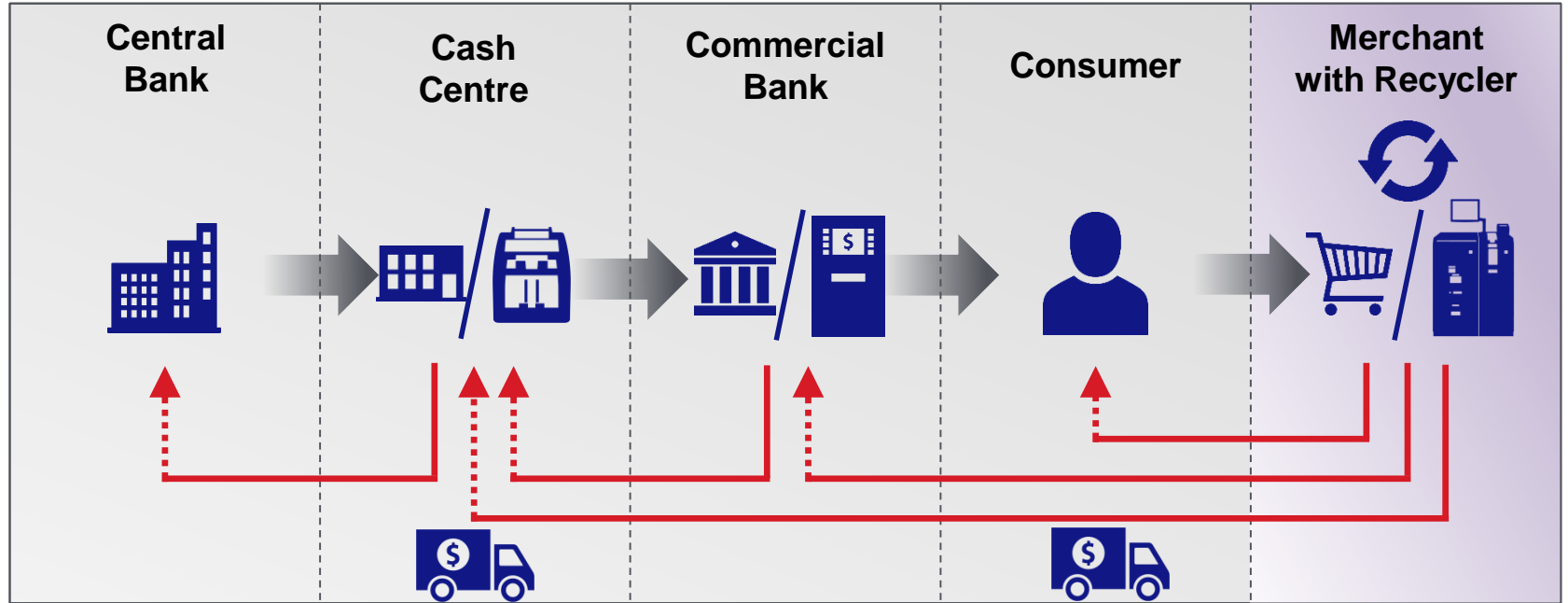
Merchants



2010's



CASH 3.0: OPERATIONAL EFFICIENCY & COST MANAGEMENT – GOOD FOR THE MERCHANTS



2 MAIN ISSUES

Cash 3.0



Issue 1



Need to get rid of incoming cash

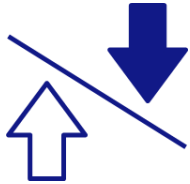
Issue 2



Wrong denominations

THE CASH CYCLE IS STILL CRAZY

Mismatches



**The cash we have
vs
The cash we need**

Availability of the
right change



Larger denominations
become “dead money”



Costs



**Every cash
movement
means COST**

Central
Bank



Commercial
Bank



Merchant

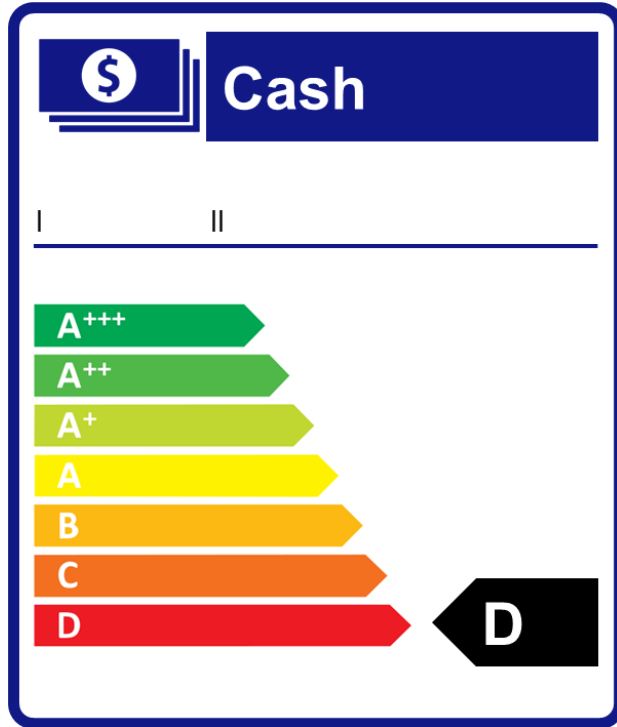


CIT





THE COST OF INEFFICIENCY

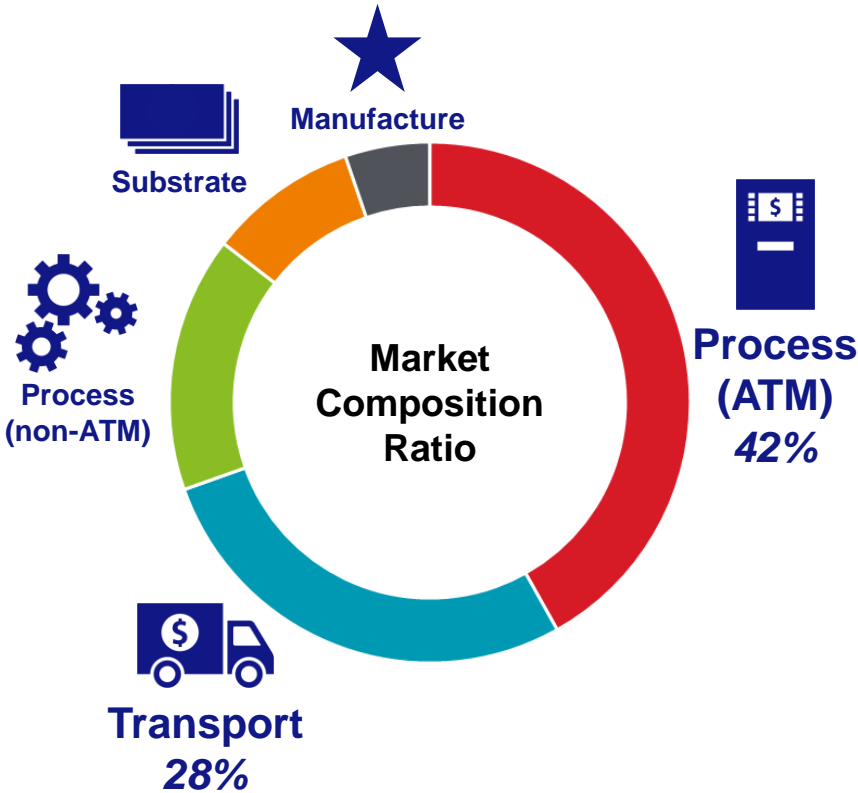


\$23.5 Billion

Source: Deloitte



THE COST OF INEFFICIENCY

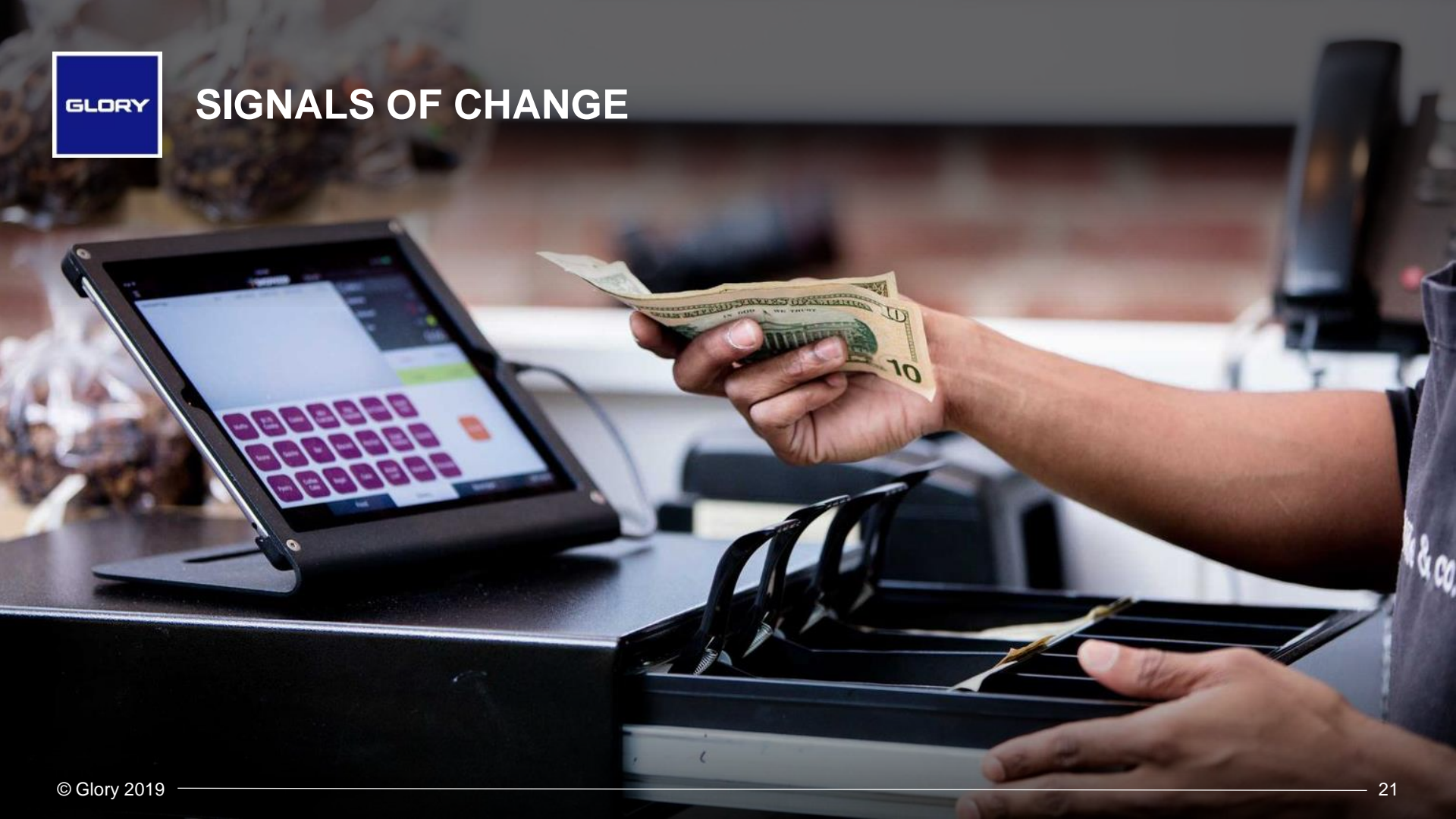


\$23.5 Billion

Source: Deloitte

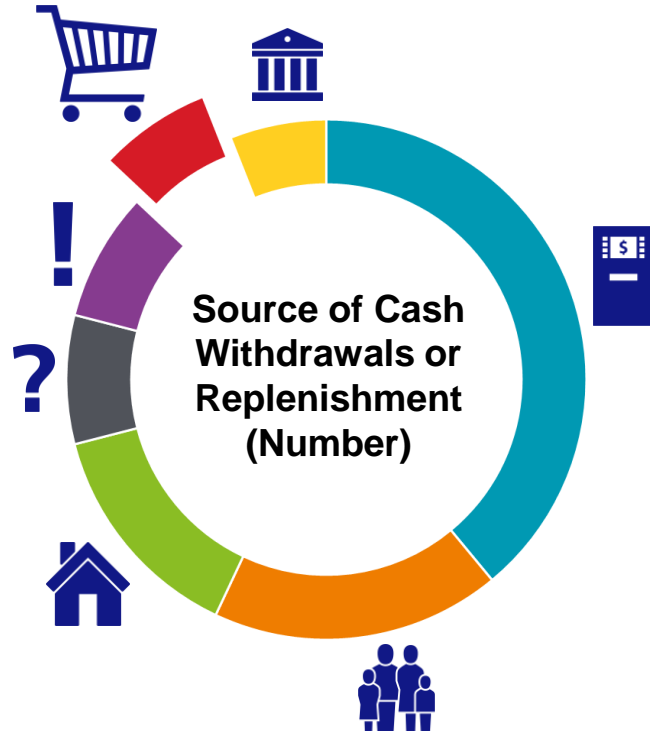









SIGNALS OF CHANGE



CASH WITHDRAWAL AND REPLENISHMENT BY SOURCE

- STILL ONLY 7% OF WITHDRAWALS AT A SHOP



	Average No. Per Person Per Year	Average Amount (EUR)
 ATM	26.6	€73
 Family, Friends & Colleagues	13.0	€25
 Cash Reserves at Home (coin jar etc)	9.5	€29
 Cashback at Shop	4.4	€15
 Bank Counter	3.8	€124
 Other	-	€63
 Not Stated	-	-

Source: ECB and De Nederlandsche Bank

CASH 4.0: THE COMMUNITY CASH CYCLE

Cash 4.0



Level of
Automation



Efficiency



Cash
Distribution



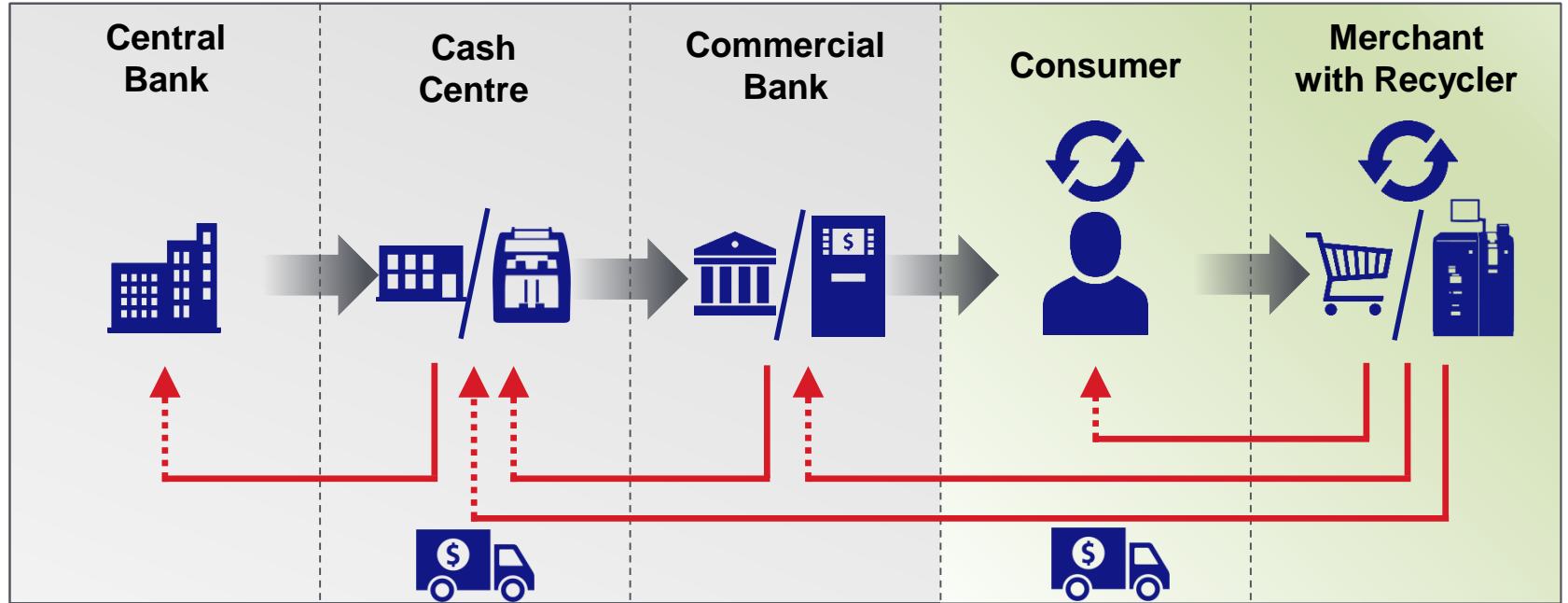
Consumers /
Communities



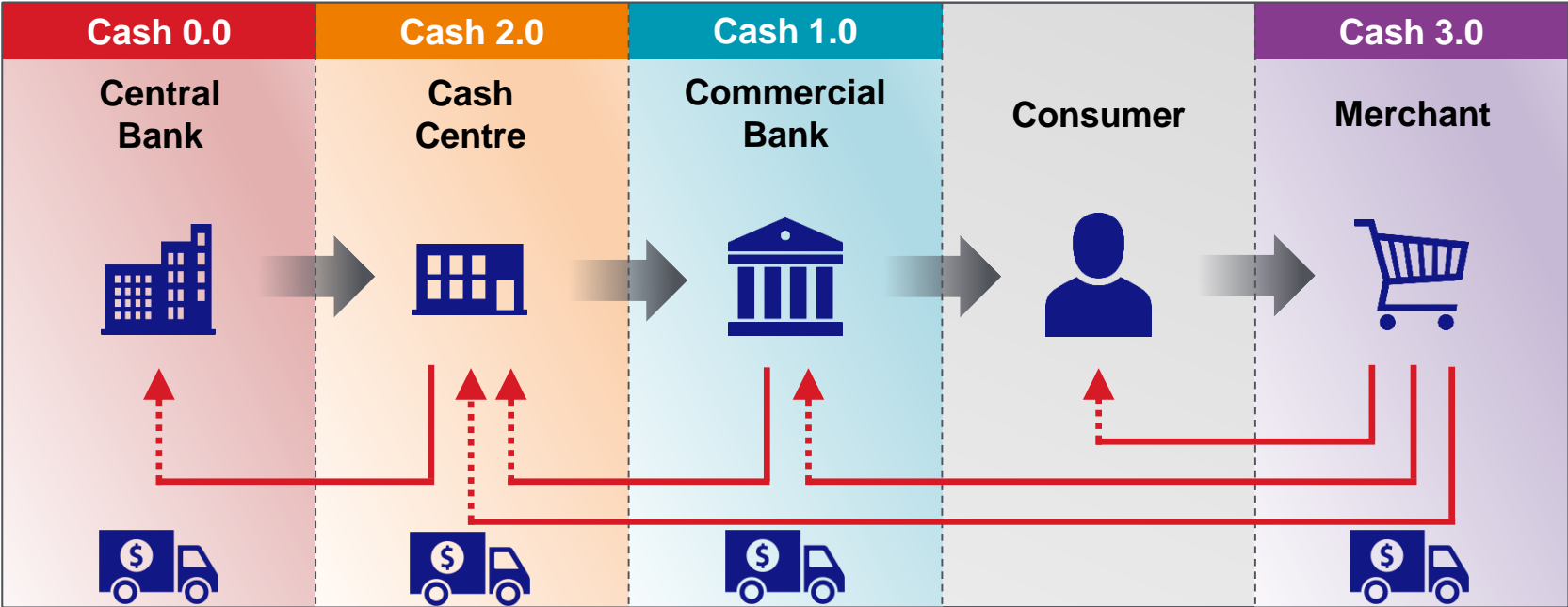
2020's



CASH 4.0: SHARE ECONOMY – COMMUNITY ECONOMY - GOOD FOR THE CONSUMER

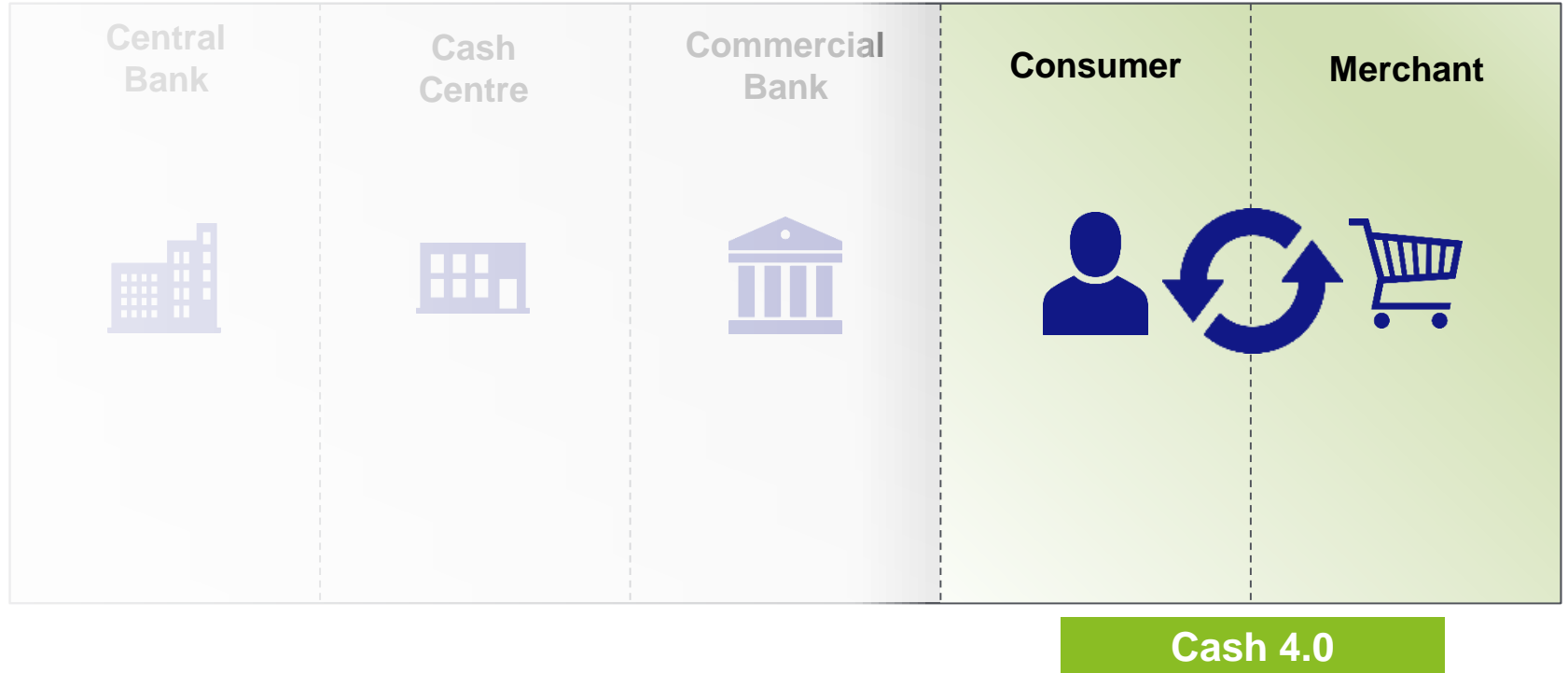


FROM CASH 0.0 TO CASH 3.0





AN INDUSTRY READY FOR DISRUPTION



THANK YOU

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