

# Supply Chain Financing

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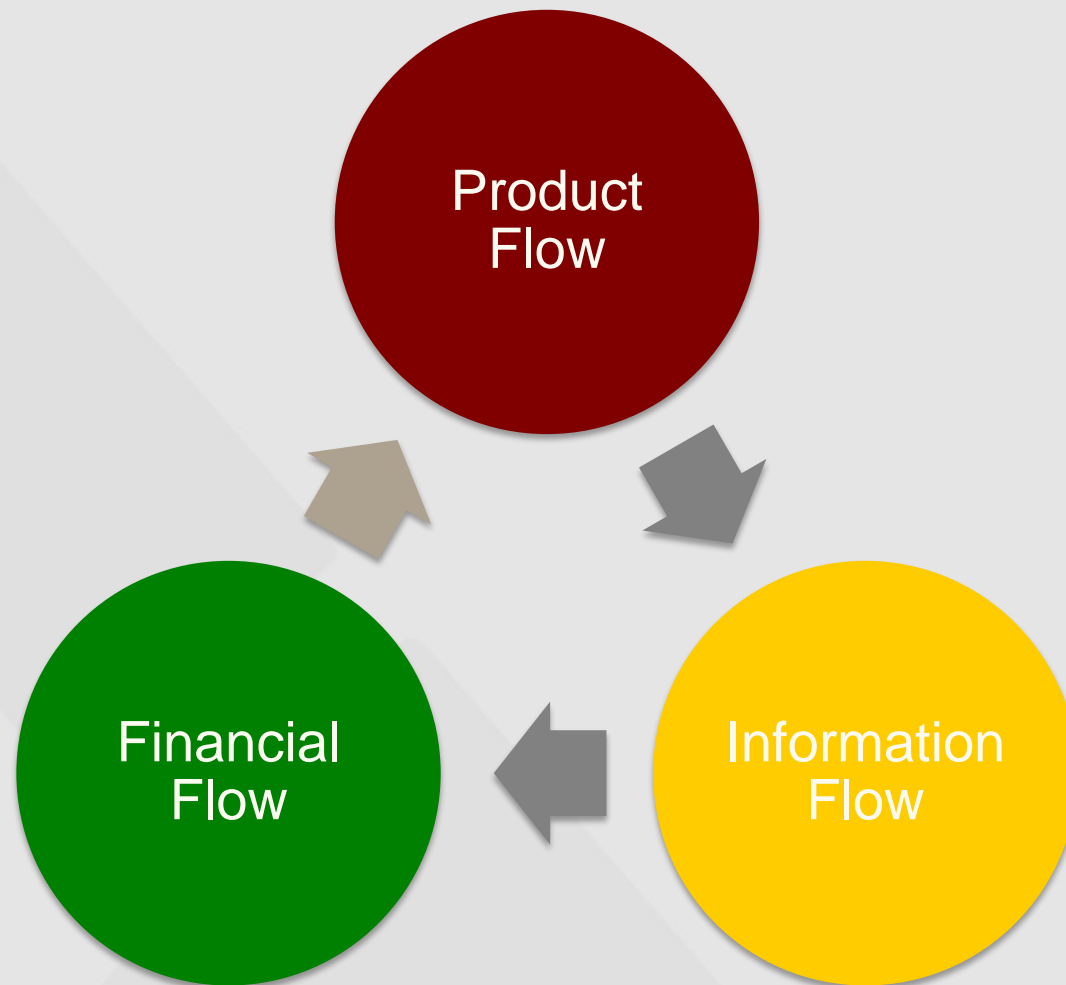
**W. P. Carey School of Business  
Arizona State University**

**January 25, 2017**

# Main Ideas

- Procurement Organizations need to be better educated on SCF
- Supplier Development with SCF
- How SCF programs work
  - Funding
- Amount of variability in the Fintechs
- Accounting Treatment (Alcoa Case)

# Supply Chain Flows



# Supply Chain Finance is:

1. Using the supply chain to fund the organization, and
2. Using the organization to fund the supply chain.

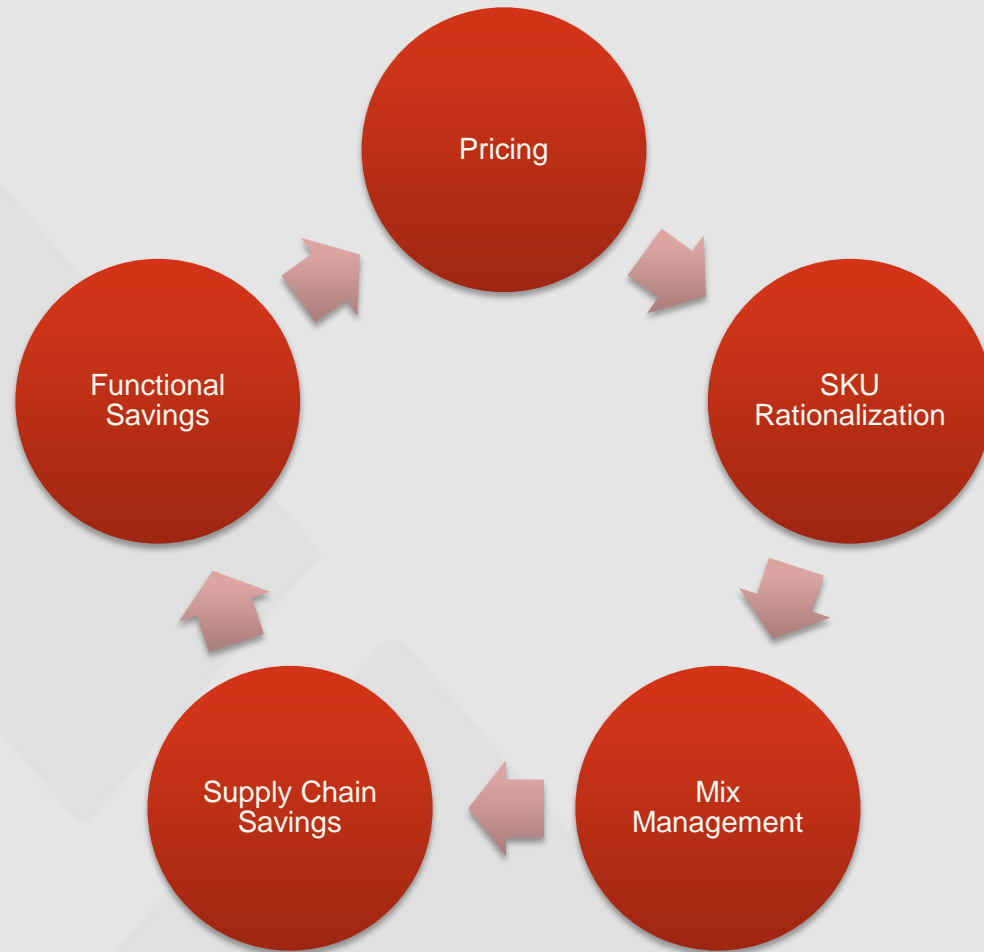
# Supply Chain Financing

Fund the Growth

# Fund the Growth

- Firms are looking to an efficient and effective supply chain to **fund the growth** of the company.
- Companies cannot only be dependent on revenues and financial management to grow profit.

# Sources of Operating Capital: An Example



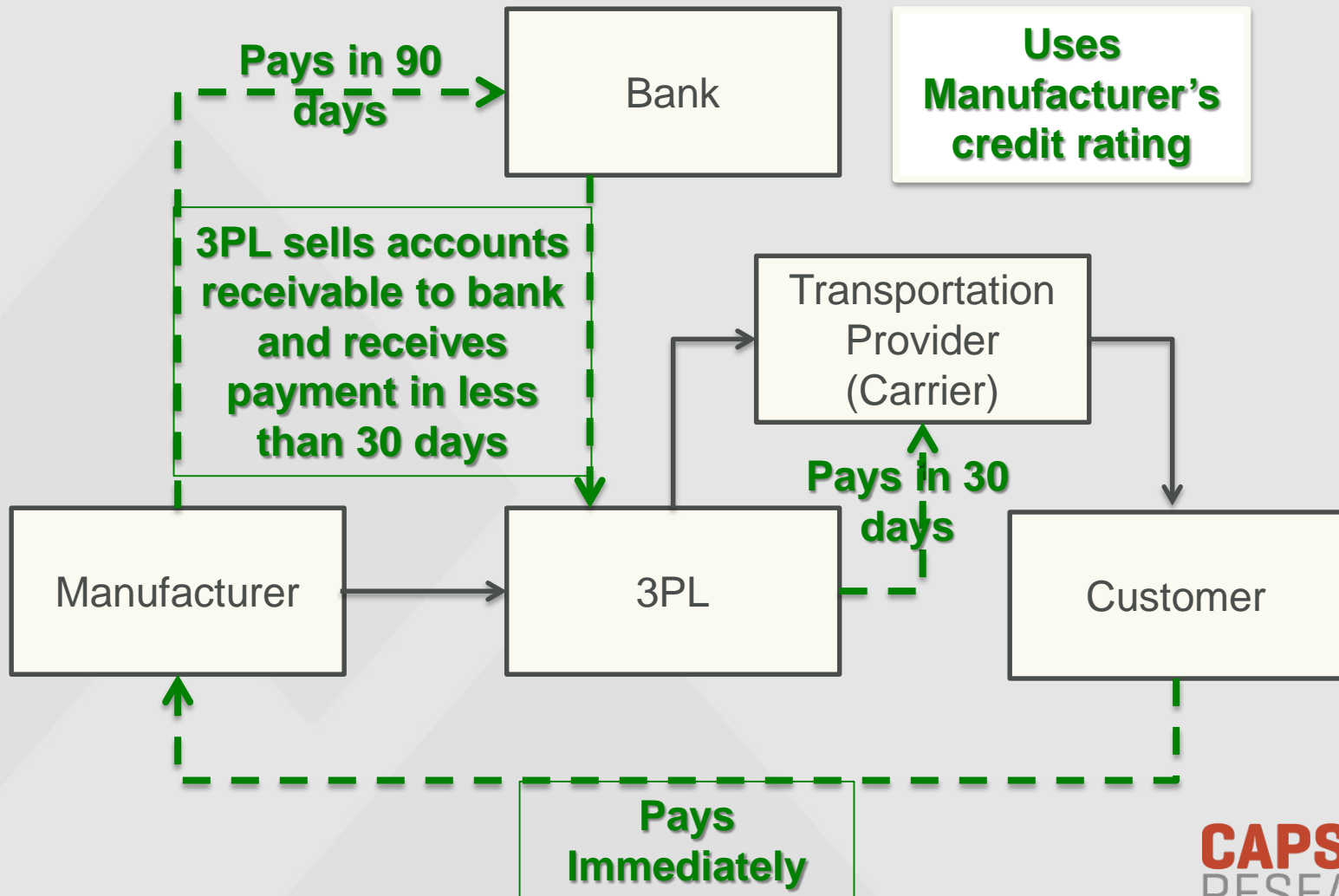
# Reasons for Increases In Cash Holdings





# Supply Chain Finance

## (Reverse Factoring)

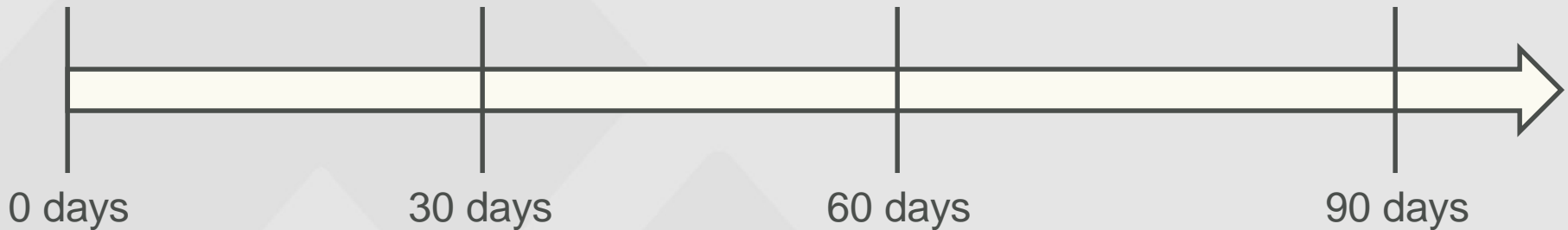


# Timeline

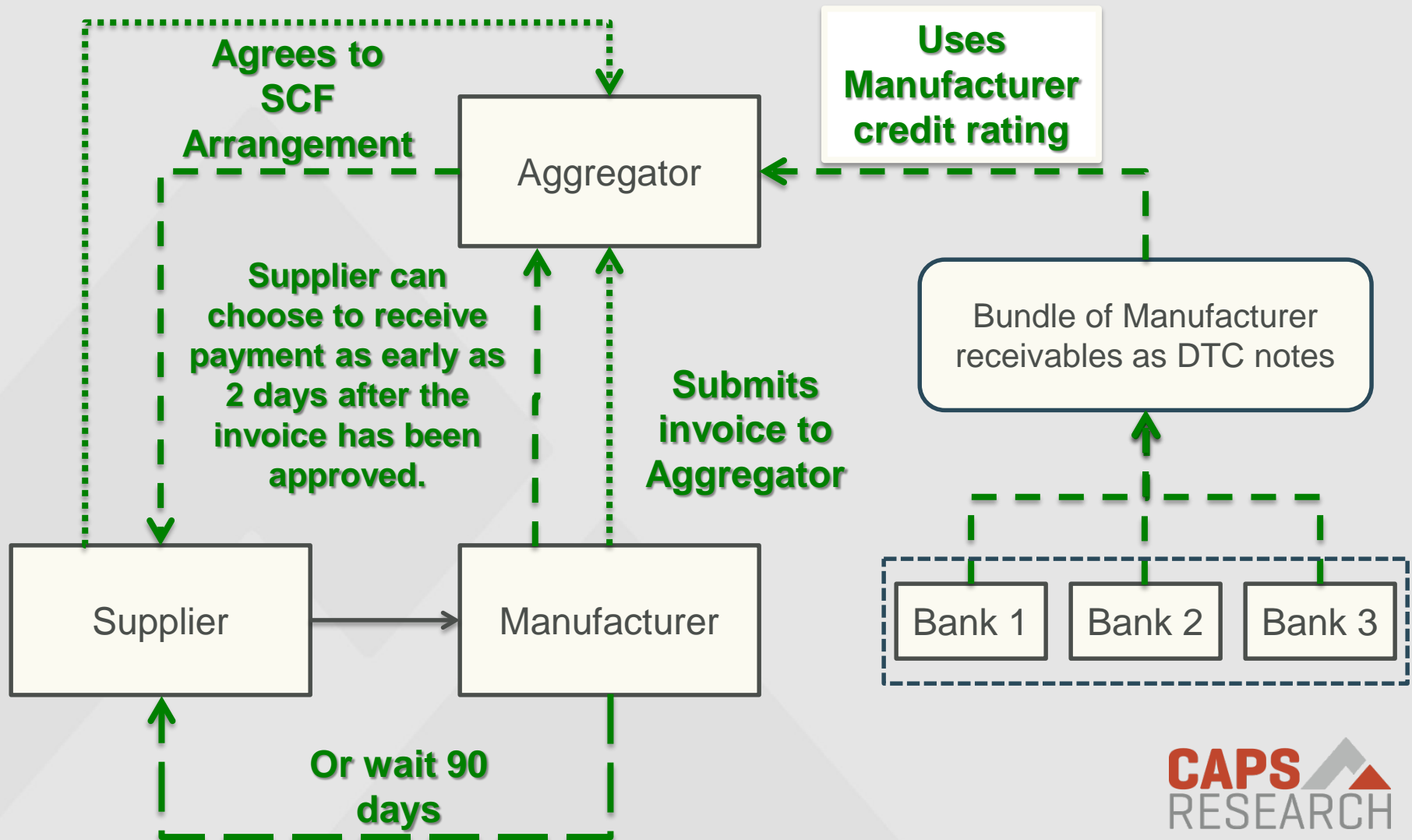
Bank pays the  
3PL

3PL pays the  
Transportation  
Carrier

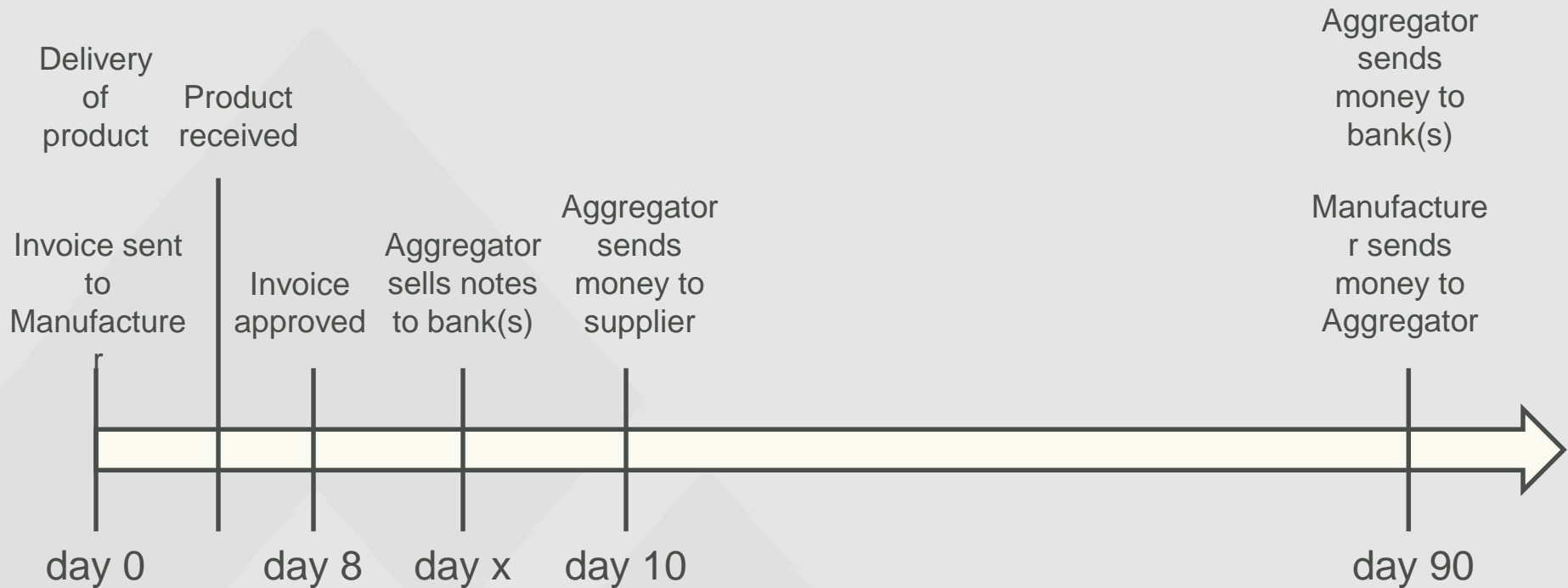
Manufacturer  
pays the Bank



# Supply Chain Finance



# Timeline



# List of Largest Banks Participating in SCF

*List of Largest Banks Active in SCF*

Bank Name	Description of Program	Country
Bank of America	One of the largest banks in the United States. In addition to SCF, they also offer commercial credit card programs.	USA
Banco Santander	Offers a number of trade finance solutions to businesses.	Spain
BNP Paribas	Has specific expertise in Commodities and Receivables Finance.	France
Citigroup	One of the first and largest programs in the United States. They also offer commercial credit card programs, among others, such as freight processing.	USA
Deutsche Bank	Has specific expertise in Receivables and Distribution Finance	Germany
HSBC	One of the largest SCF programs globally.	UK
JP Morgan Chase	One of the largest banks in the United States. In addition to SCF, they also offer commercial credit card programs.	USA
Standard Chartered	Mostly specialized in working in developing economies, such as Africa, Asia, or the Middle East.	UK
Sumitomo Mitsui Banking Corporation	One of largest Asian banks active in trade finance with expertise in Europe, Africa, Middle East, Asia Pacific, Latin America	Japan

# Fintech Firms

Firm	Specialization	Comments
<b>Ariba</b>	Supply Chain Financing and Dynamic Discounting	Unit of SAP, that is providing a complete procure-to-pay capability
<b>Basware</b>	Procure-to-Pay Platform	A Finnish software company selling enterprise software for financial processes, purchase to pay and financial management.
<b>C2FO</b>	Exchange-based Dynamic Discounting/early payment.	Similar concept to Priceline only for early payment of receivables. Target market is SME firms.
<b>GT Nexus / Infor</b>	Supply chain collaboration platform with some CF functionality.	Merged with TradeCard, another provider of Supply Chain Finance solutions. And it was recently acquired by Infor, a provider of cloud-based software for businesses.
<b>Orbian</b>	Supply Chain Financing	Early Fintech company that started originally as a JV between SAP and Citibank. They finance the purchases of the receivables with financial partners under Clearstream, Euroclear, and DTC note issuances under no-purchase agreement

Firm	Specialization	Comments
<b>Prime Revenue</b>	Supply Chain Financing and Dynamic Discounting	Technology platform that is widely considered to be the most robust. Their software can help analyze firm spend and provide a strategy to optimize payment terms based on multiple benchmarks and supplier characteristics. Technology includes payment terms optimization. Also, in addition to SCF can help firms do dynamic discounting.
<b>Taulia</b>	Supply Chain Financing and Dynamic Discounting	A procure-to-pay platform that is independent of ERP software firms or banks. They are able to provide flexible options for buyers and sellers.
<b>Textura</b>	Supply Chain Financing	Concentrates on the construction industry. Value proposition for general contractor is higher quality process.
<b>Trax</b>	Logistics transaction risk management and data refining.	Receives, standardizes, normalizes, and corrects logistics data, and general invoice risk data. They are able to provide an agreed upon risk score for each invoice which can then be

# SCF Funders

Name	Specialty	Countries
<b>Advance Global Capital</b>	Funding SMEs in the emerging markets throughout the world	UK
<b>Apex Peak</b>	Funding for SMEs throughout Singapore and in South Africa	Singapore
<b>Greensill Capital</b>	Principal investor group specializing in structured trade finance, working capital optimization, specialty financing and contract monetization	Australia, UK, and US
<b>GemCorp</b>	Investment Fund focused on emerging markets in Africa, Asia, and Europe across sectors and asset classes	UK
<b>Propel</b>	Provides Working Capital Solutions, such as Supplier Finance and Receivables finance to firms in African countries	South Africa
<b>Tower Trade Group</b>	Supply Chain Finance and IT services for companies in Ireland, South Africa, Spain, Switzerland, UK, and the US	Switzerland

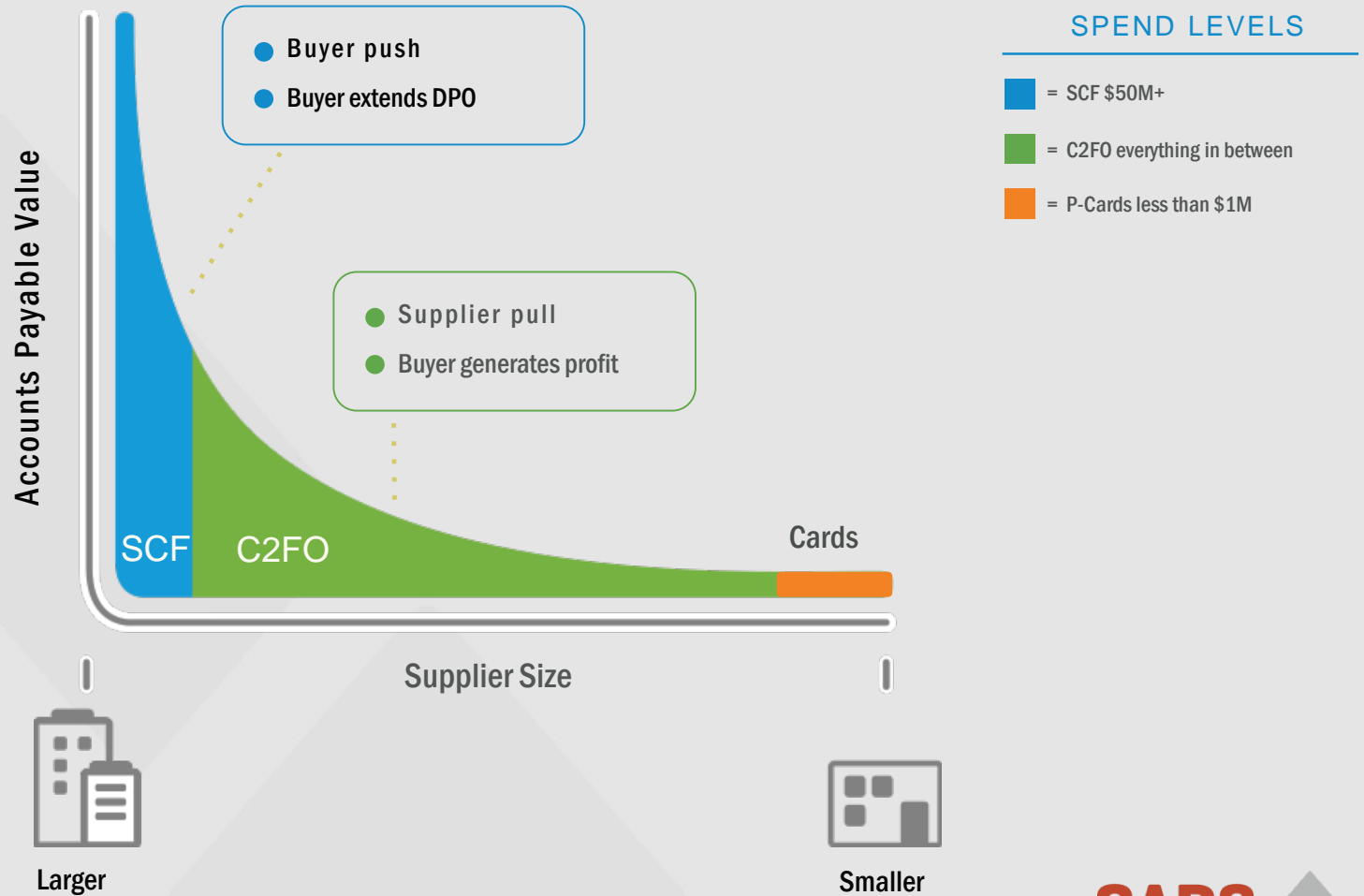
# Dynamic Discounting

- Offering of early payment discounts on approved invoices awaiting payment.
- Buyers have option of choosing an APR
- Supplier invoices discounted based on a sliding scale derived from the number of days supplier is paid early.
- Types:
  - Early Payments
  - Extended Discount Term
  - Dynamic Payment Terms (ASAP)



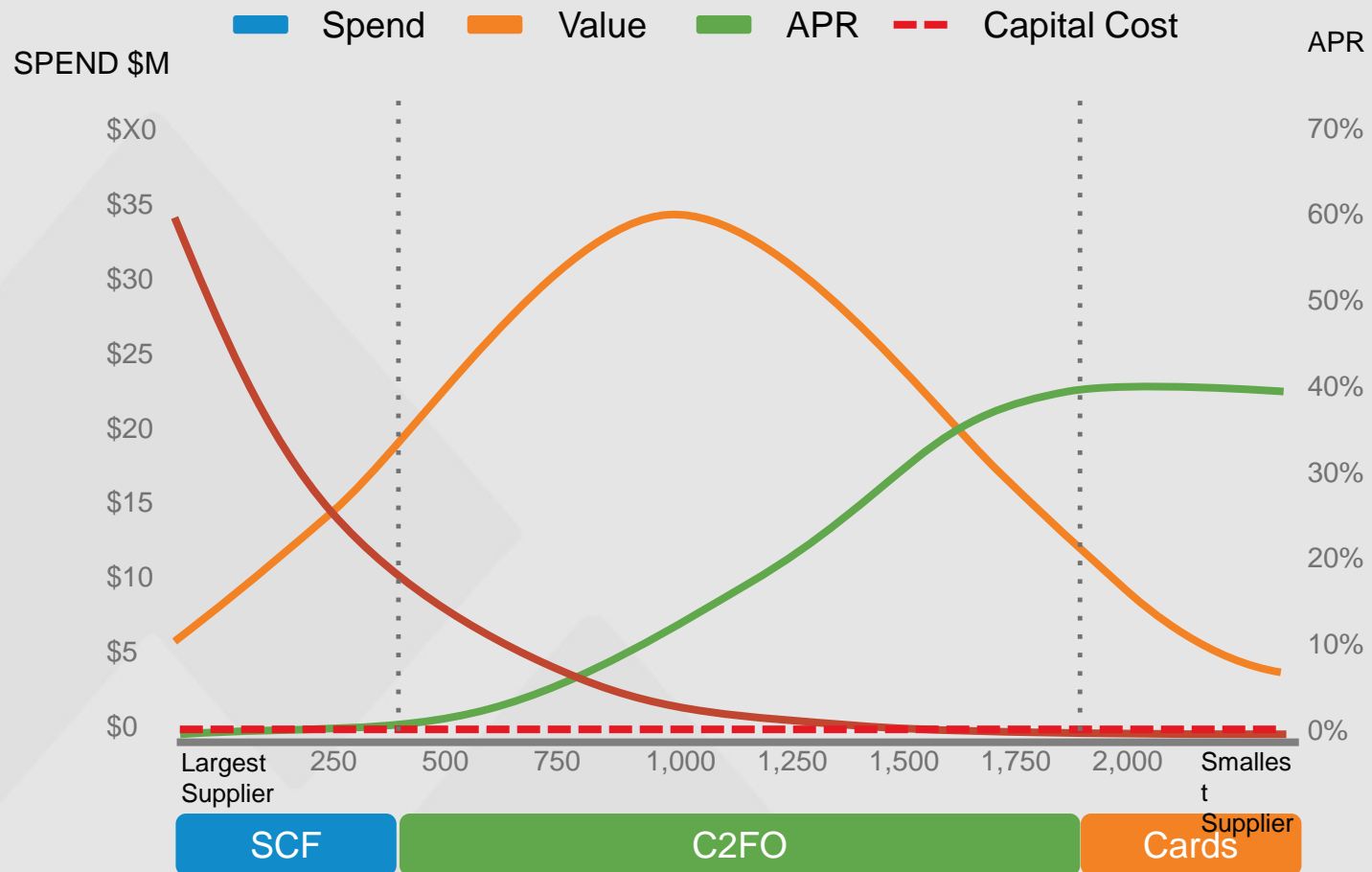
# HOW DOES IT FIT WITH OTHER EARLY PAY PROGRAMS?

THEY COMPLEMENT EACH OTHER PERFECTLY

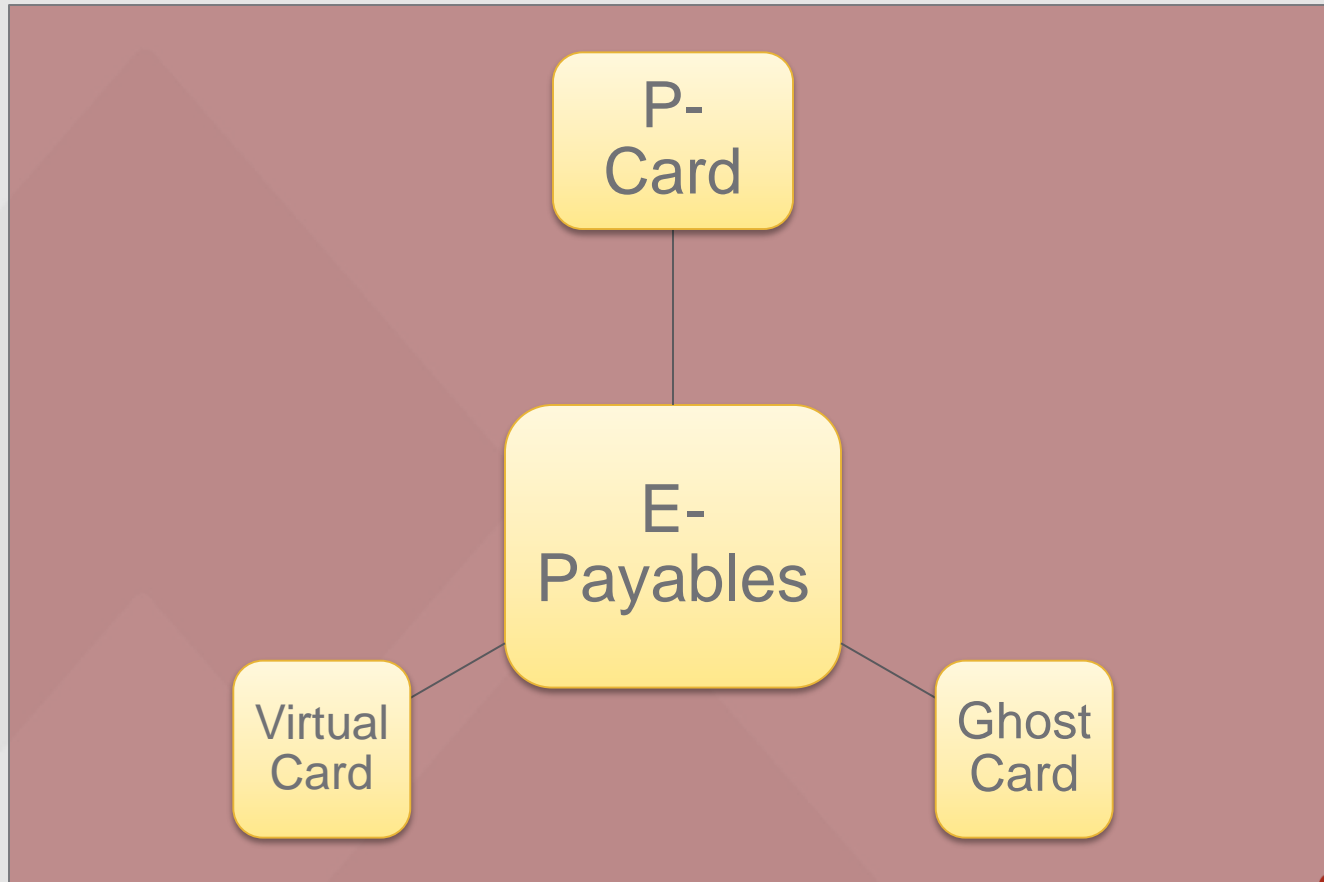


TOGETHER THEY HELP ADDRESS ALL PARTS OF THE SUPPLY CHAIN  
AND MAJORITY OF VALUE OPPORTUNITY IS IN MIDSECTION OF SPEND

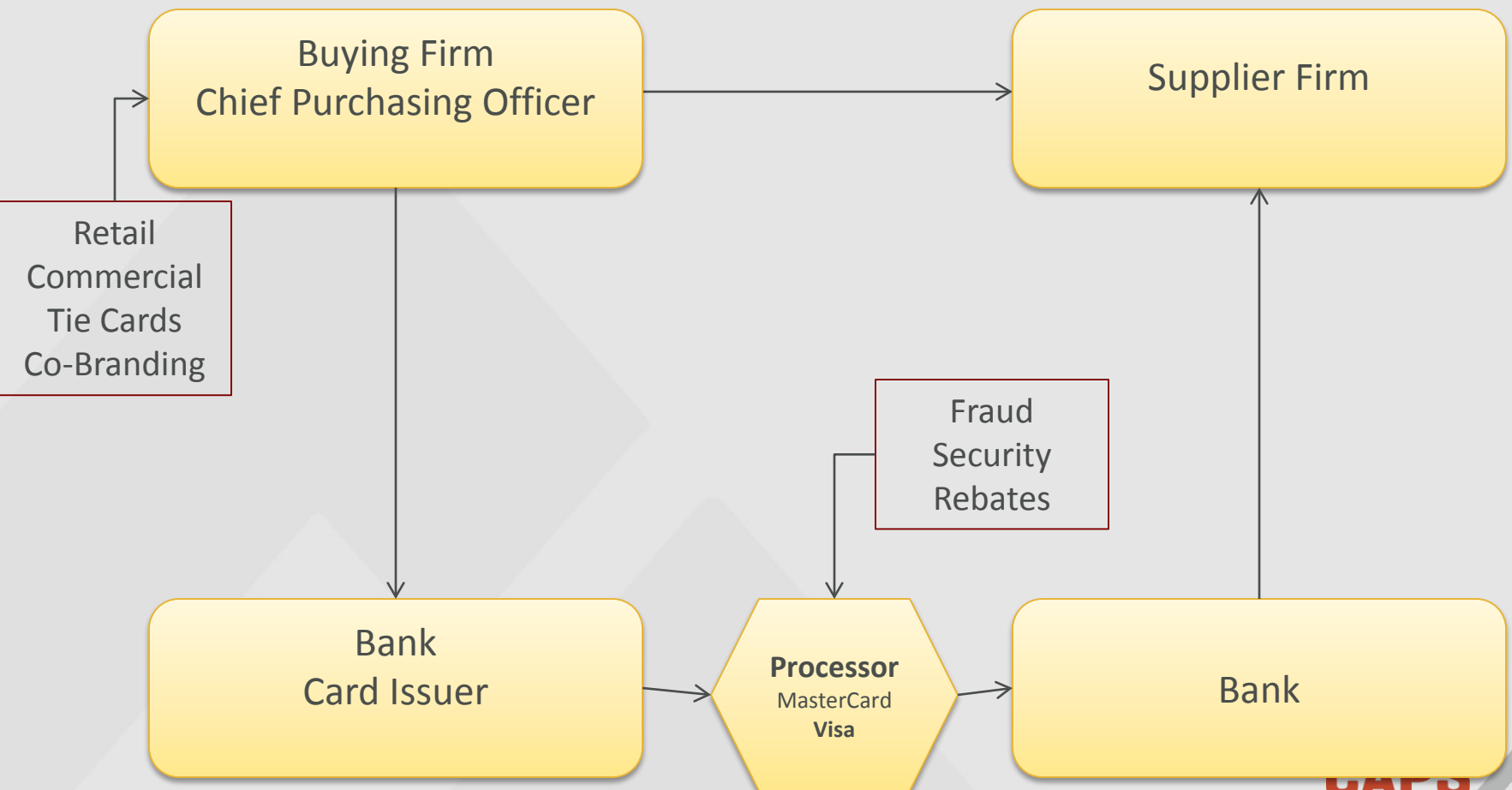
## Typical spend distribution of Fortune 500 company



# E-Payables



# E-Payables – P-Cards



# SCF vs. E-Payables

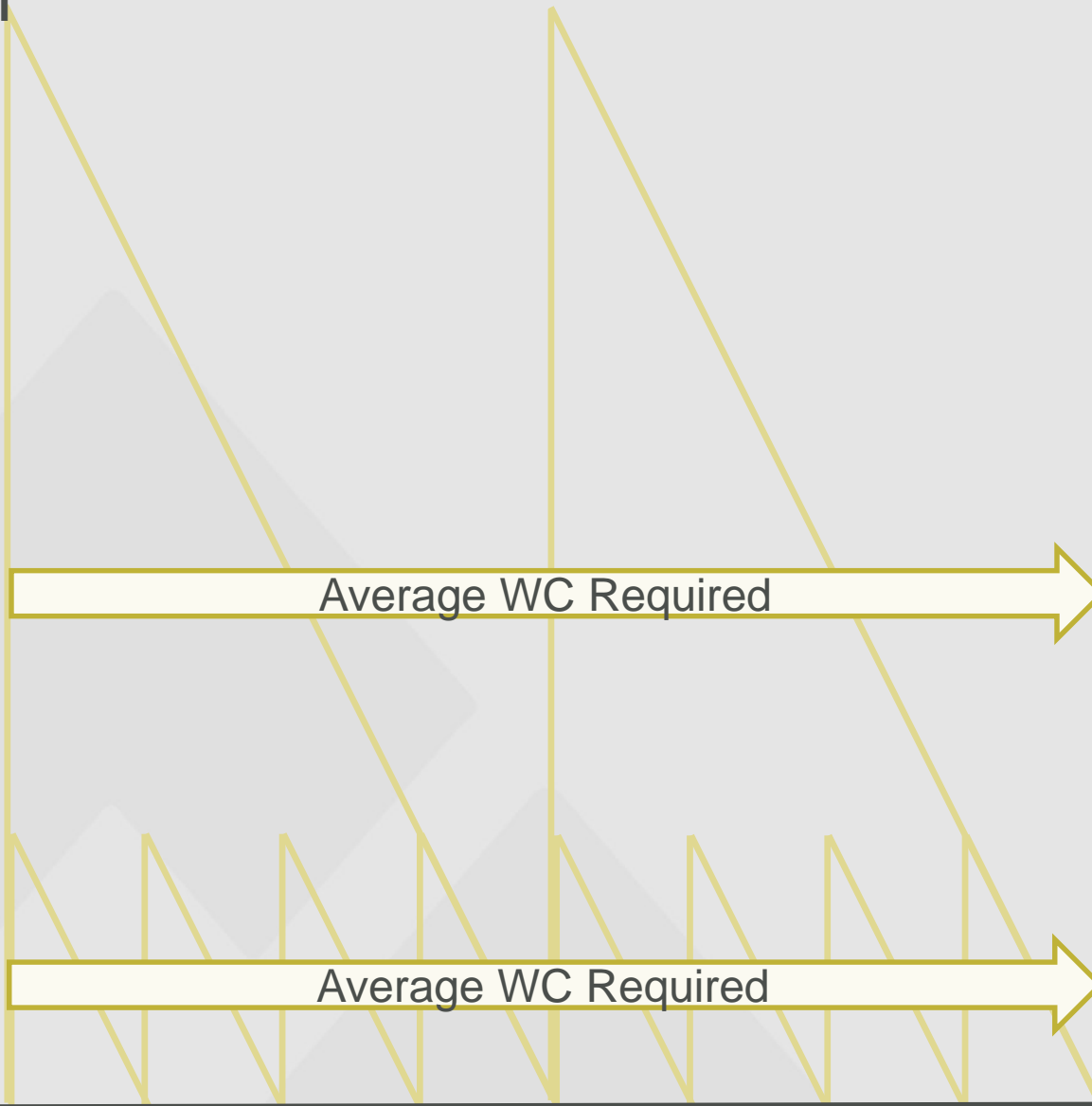
- SCF brings CPO and CFO together. The tension used to be on CPO focusing on price and CFO on working cap.
- SCF for core suppliers, large volume of money, frequent transactions.
- P-card (or virtual card) more for lots of SME suppliers.

# SupplierPay Pledge



1. *Provide A Working Capital Solution to Our Small Business Suppliers:* We will take active steps to lower the working capital cost of small business suppliers through *either*:
  - Paying our small suppliers faster than we do today in order to reduce their capital needs.
  - Enabling a financing solution that helps small suppliers to access working capital at a lower cost.
2. *Share Best Practices:* Our pledge is a first step in a larger effort to strengthen supply chains and support small firms with the goal of driving impactful follow on action from the broader marketplace. To encourage wider support, we'll highlight tangible outcomes for our own efforts, providing visibility into our actions and publicize key learnings in implementing this pledge.
3. *Implement a 'Win-Win' Solution:* We will implement this pledge in a manner that ensures our small suppliers are able to take advantage of our commitment while minimizing new administrative or operational burdens. We will define 'small supplier', and if we choose to offer these solutions to the entire supply chain we will continue to focus our efforts on the small suppliers that will benefit most. We will not use our pledge to offer financing solutions as a means of extending payment terms with our current small business supplier base.

Working  
Capital

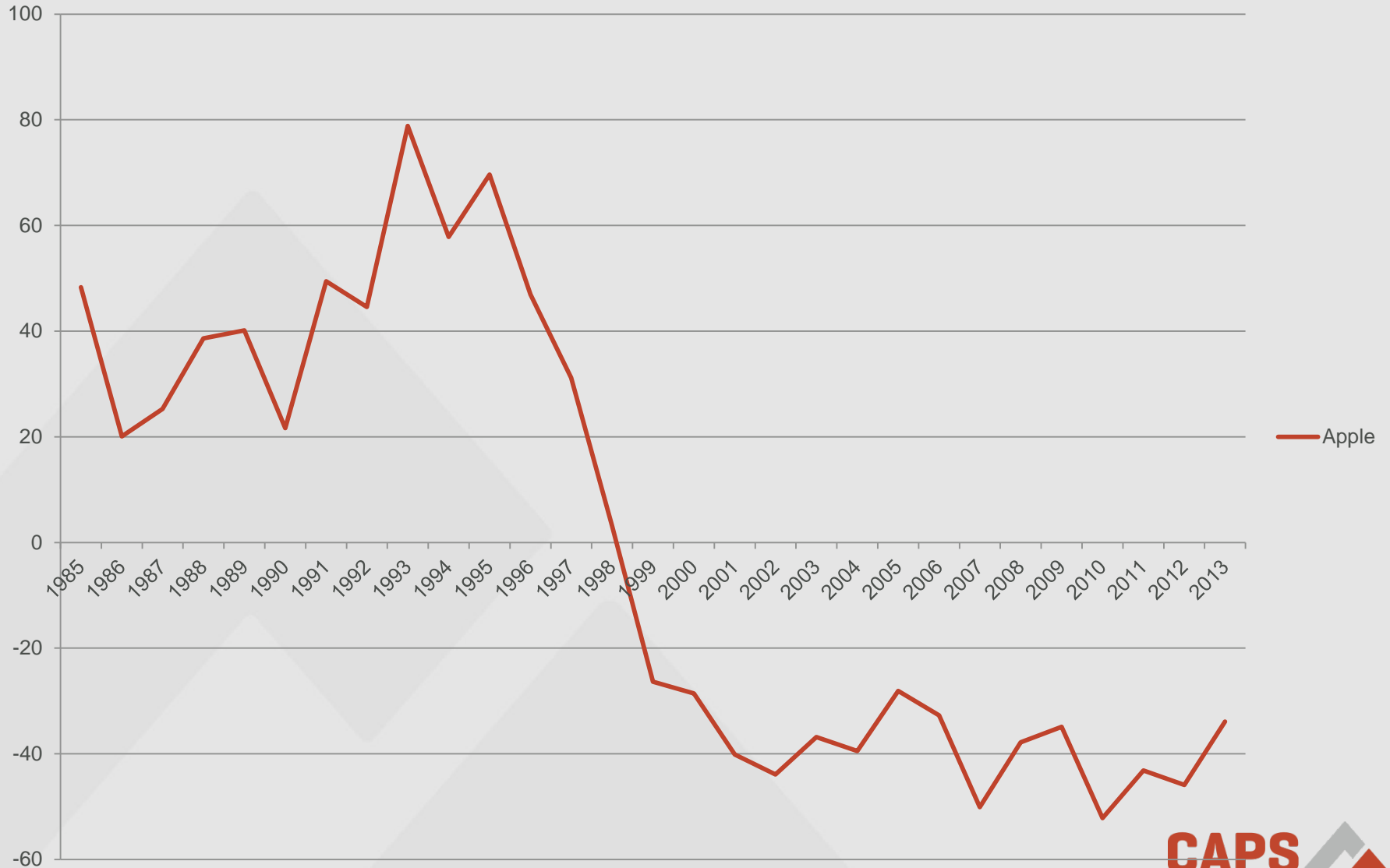


Monthly  
Payments

Weekly  
Payments

# Cash Conversion Cycle

## Apple





# Further Explanation

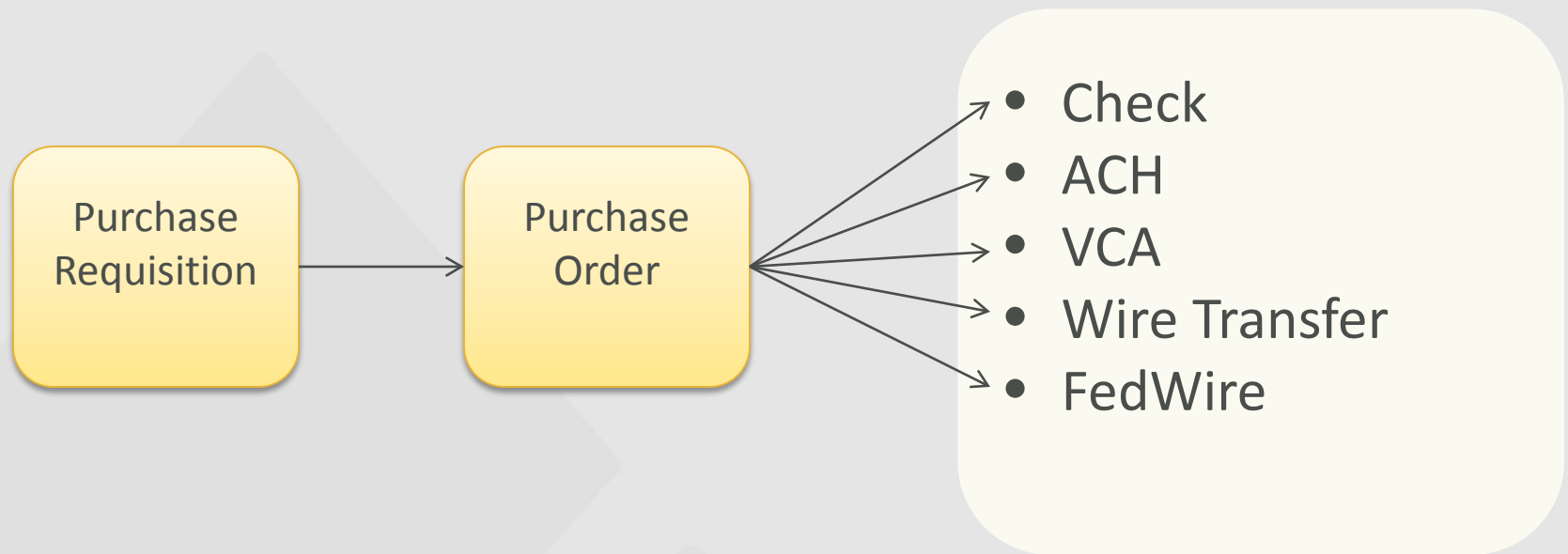
- <http://financing.supply>

# End Of Presentation



Extra slides follow

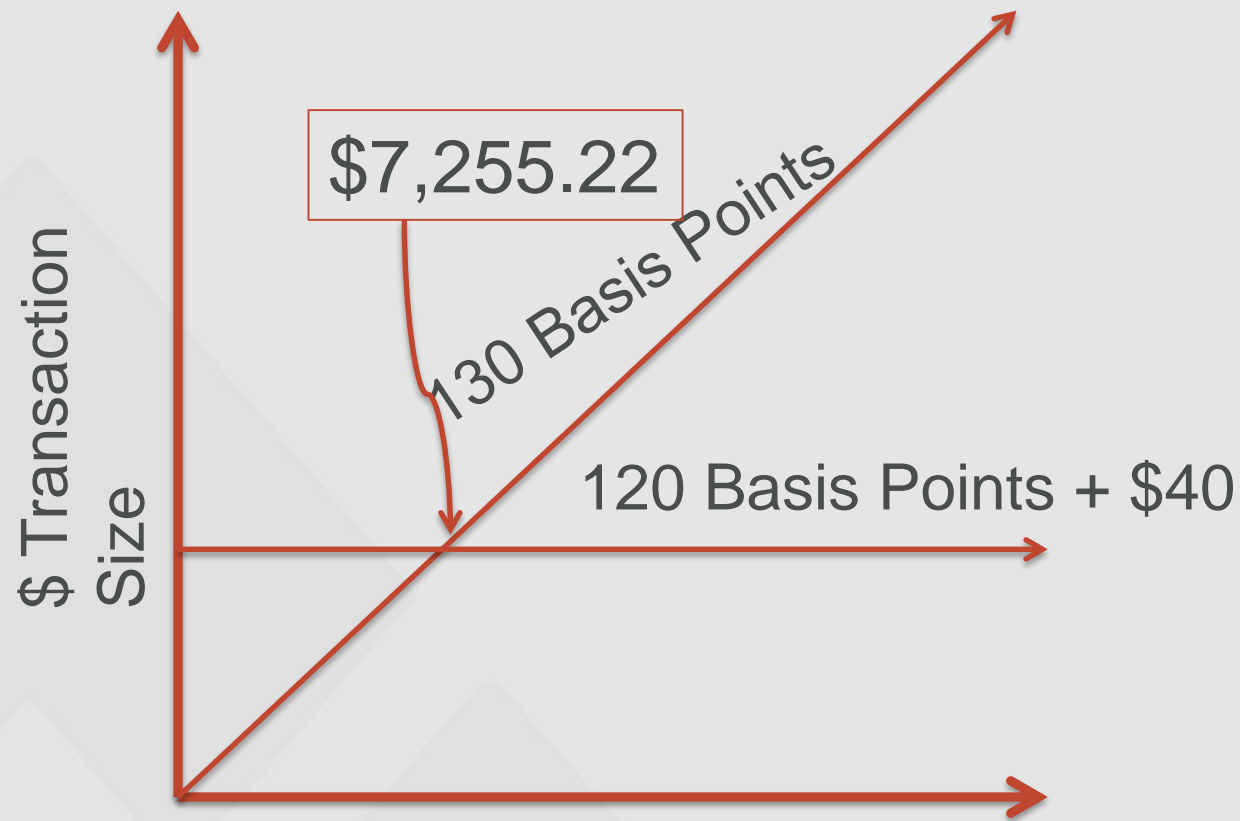
# Payments



# SCF vs. E-Payables

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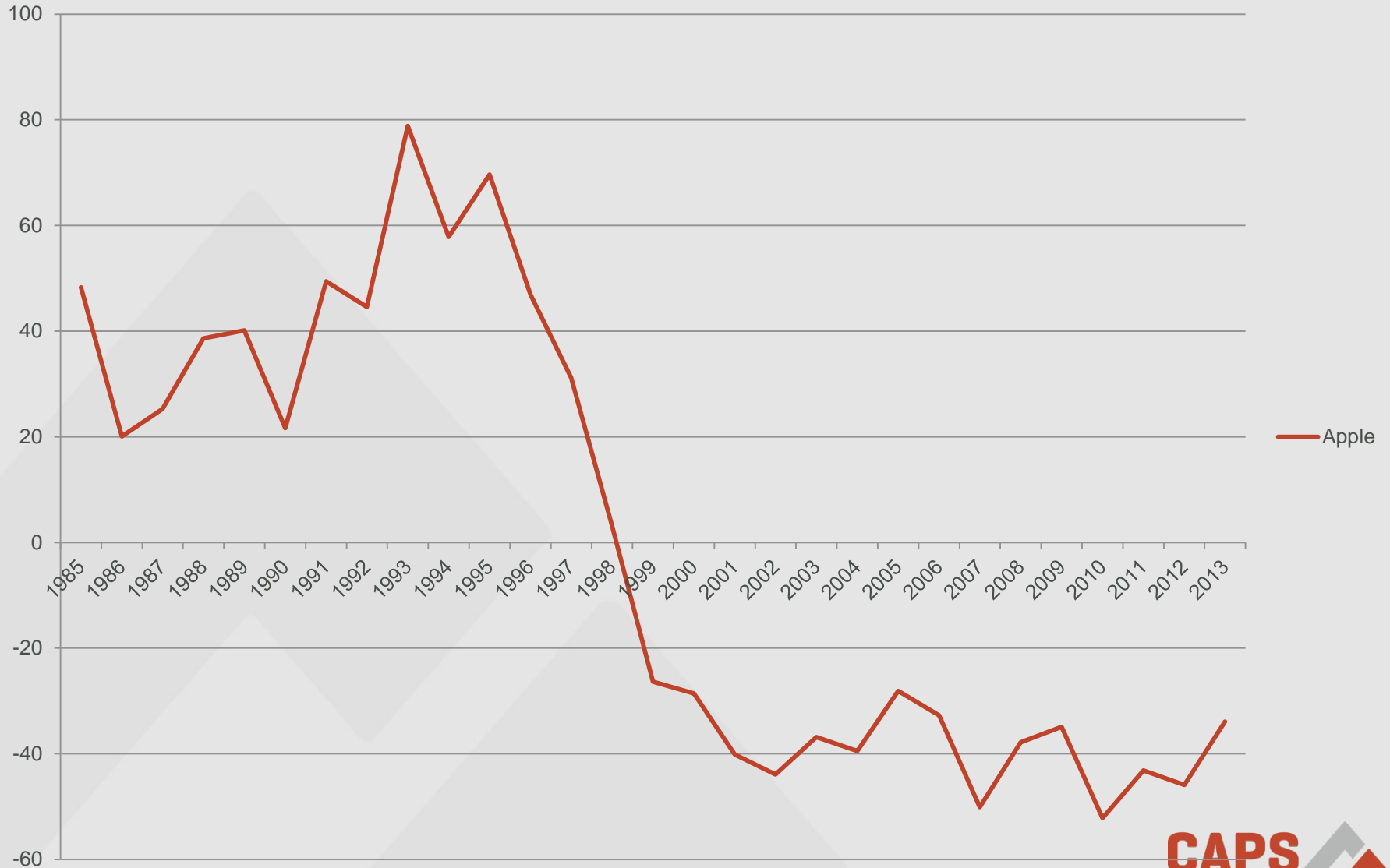
# Fees



Fees

# Cash Conversion Cycle

## Apple



# Cash Conversion Cycle

$$\text{CCC} = \text{DSO} + \text{DIO} - \text{DPO}$$

- Days Sales Outstanding (DSO): the number of days needed to collect on sales.
- Days Inventory Outstanding (DIO): how many days it takes to sell the inventory.
- Days Payable Outstanding (DPO): the company's payment of its own bills.

# Further Explanation

- <http://financing.supply>



# Funder Solutions

## Working Capital Solutions

### Accounts Receivable Finance

- Pooled or single name programs to fund ineligible receivables (e.g., foreign and large concentrations)
- Multi-year contract monetization of licenses, products, royalties or services

### Accounts Payable Finance

- Supply Chain Finance offers early settlement to Suppliers in exchange for extended payment terms
- Re-invoicing service for the Buying company to pay the discount cost in return for rapid working capital improvement

### Property Sale Leaseback

- Monetize underutilized physical assets
- Leverage new Capital Lease accounting treatment

## Margin Improvement Solutions

### Expedited Payment Program

- Suppliers are offered early settlement at their existing payment terms in return for a discount
- The Buying company obtains a share of the discount without the use of their cash or the shortening of their DPOs

### Project Finance

- Purchase multi-year cash flows committed by the project off-taker
- Lowers the cost of the project and retains a larger portion of equity for the project sponsor

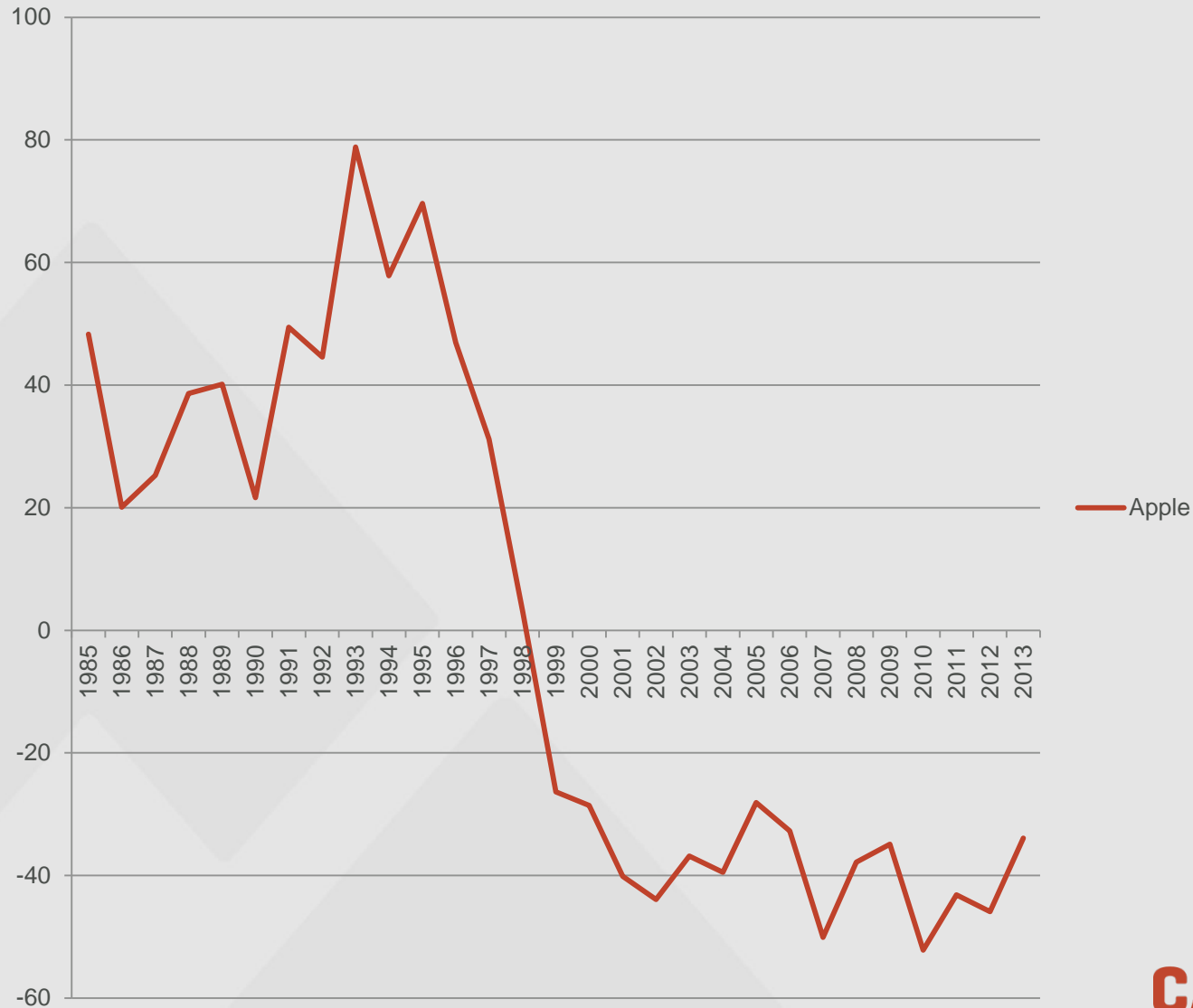
#### Notes:

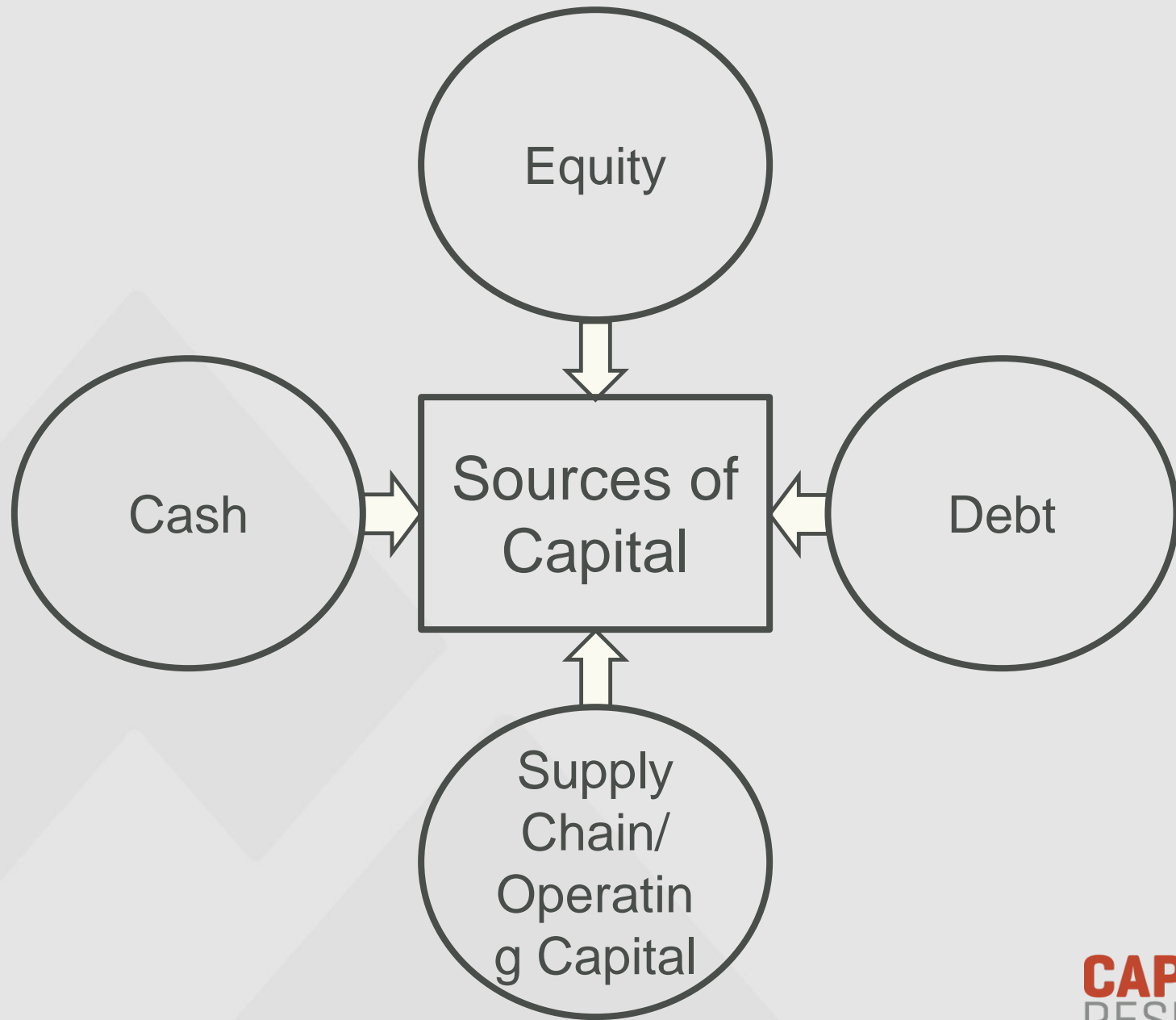
- The liquidity for the programs is provided by Greensill Capital, the Buying company itself or a syndicate of investors arranged by Greensill Capital
- In many cases, the Buying company can treat the cash they apply to the programs as an investment and retain it on the balance sheet

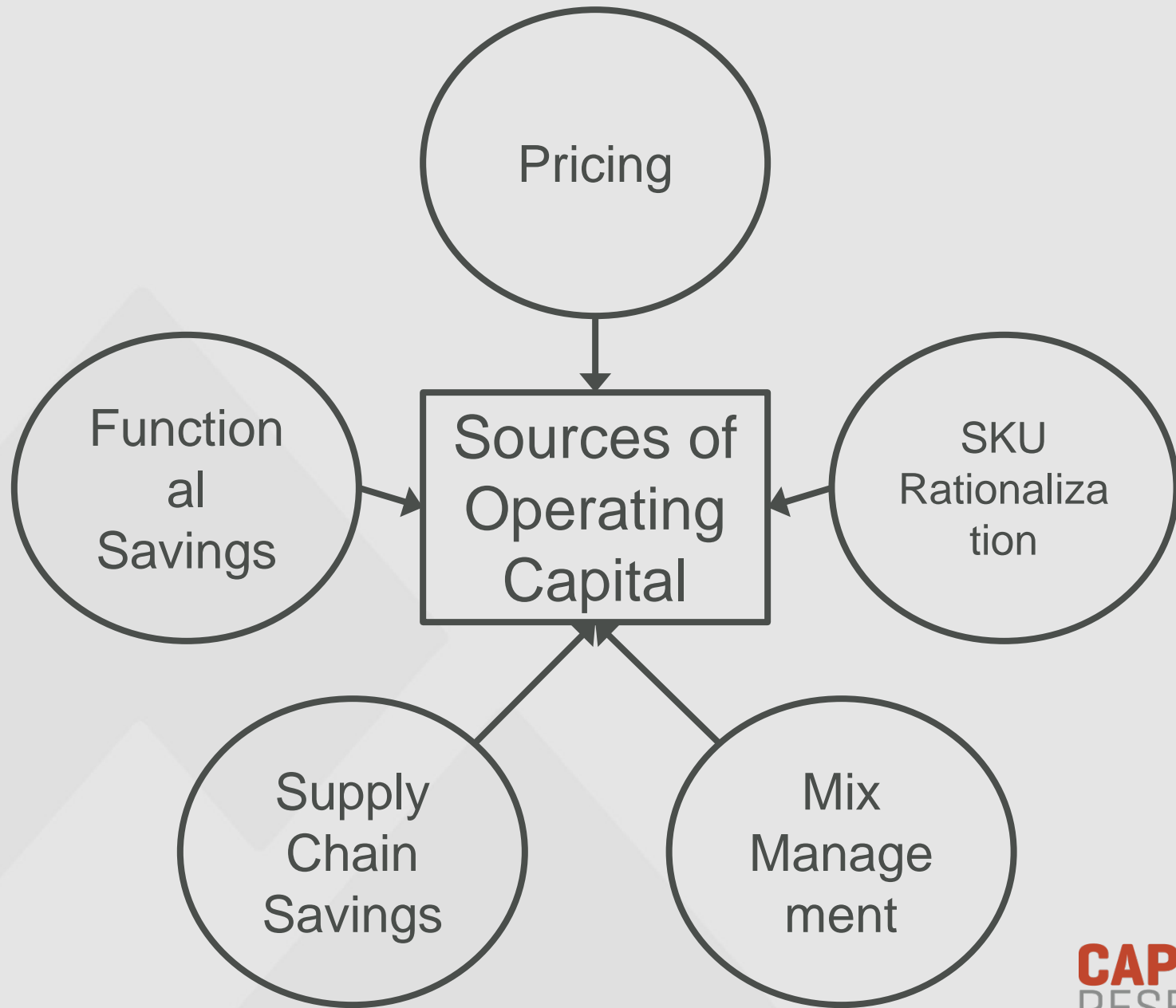


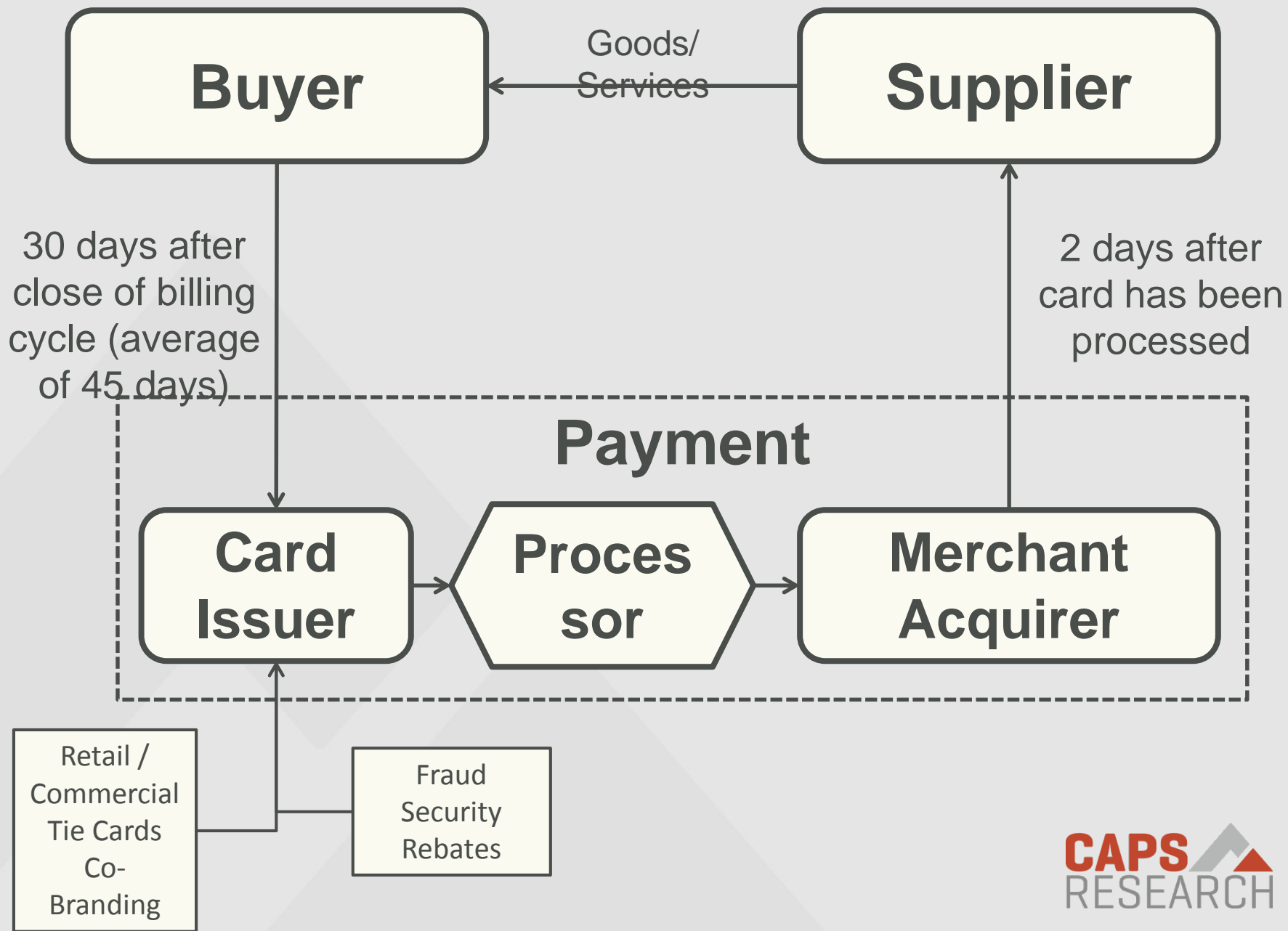
# Cash Conversion Cycle

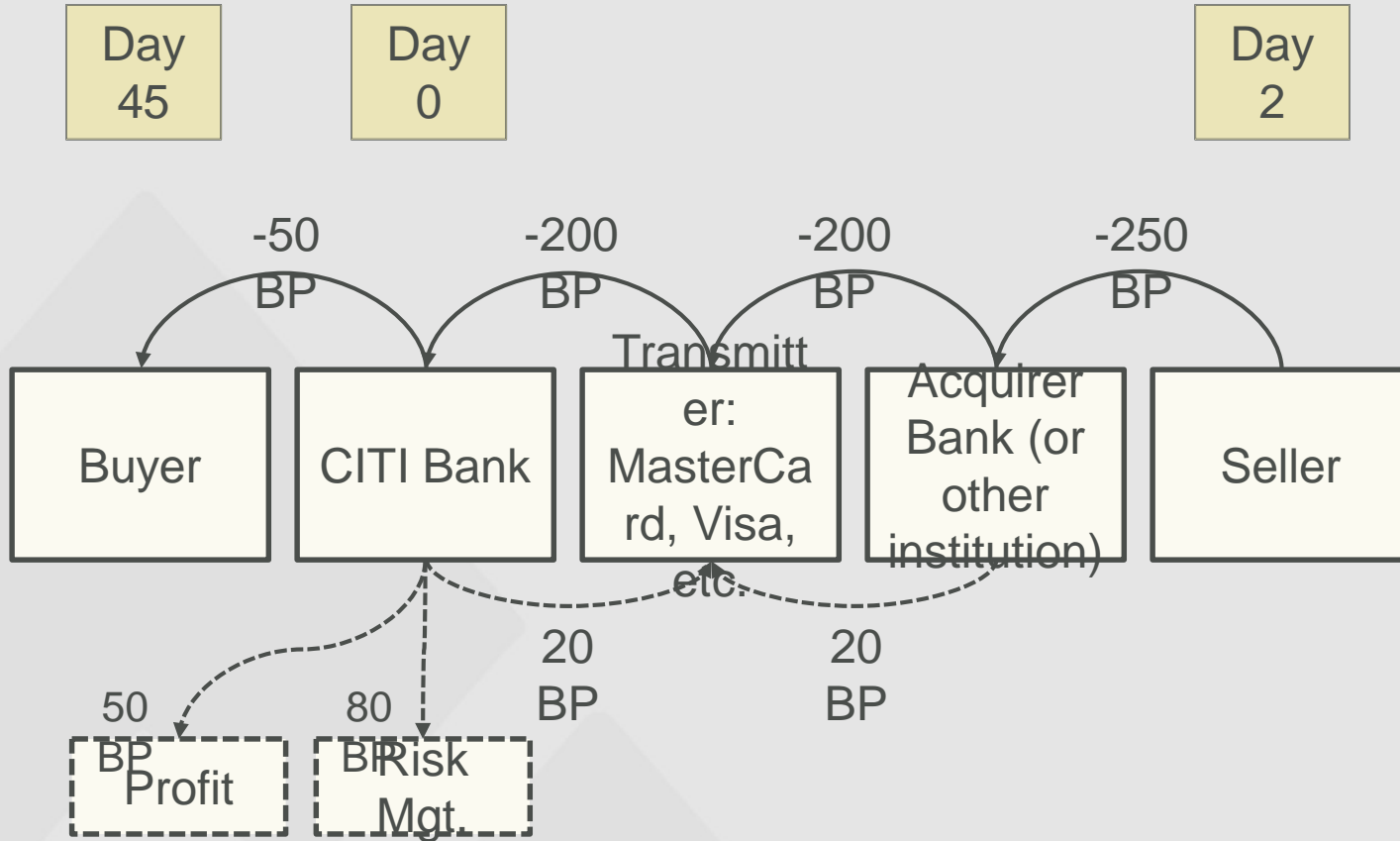
## Apple

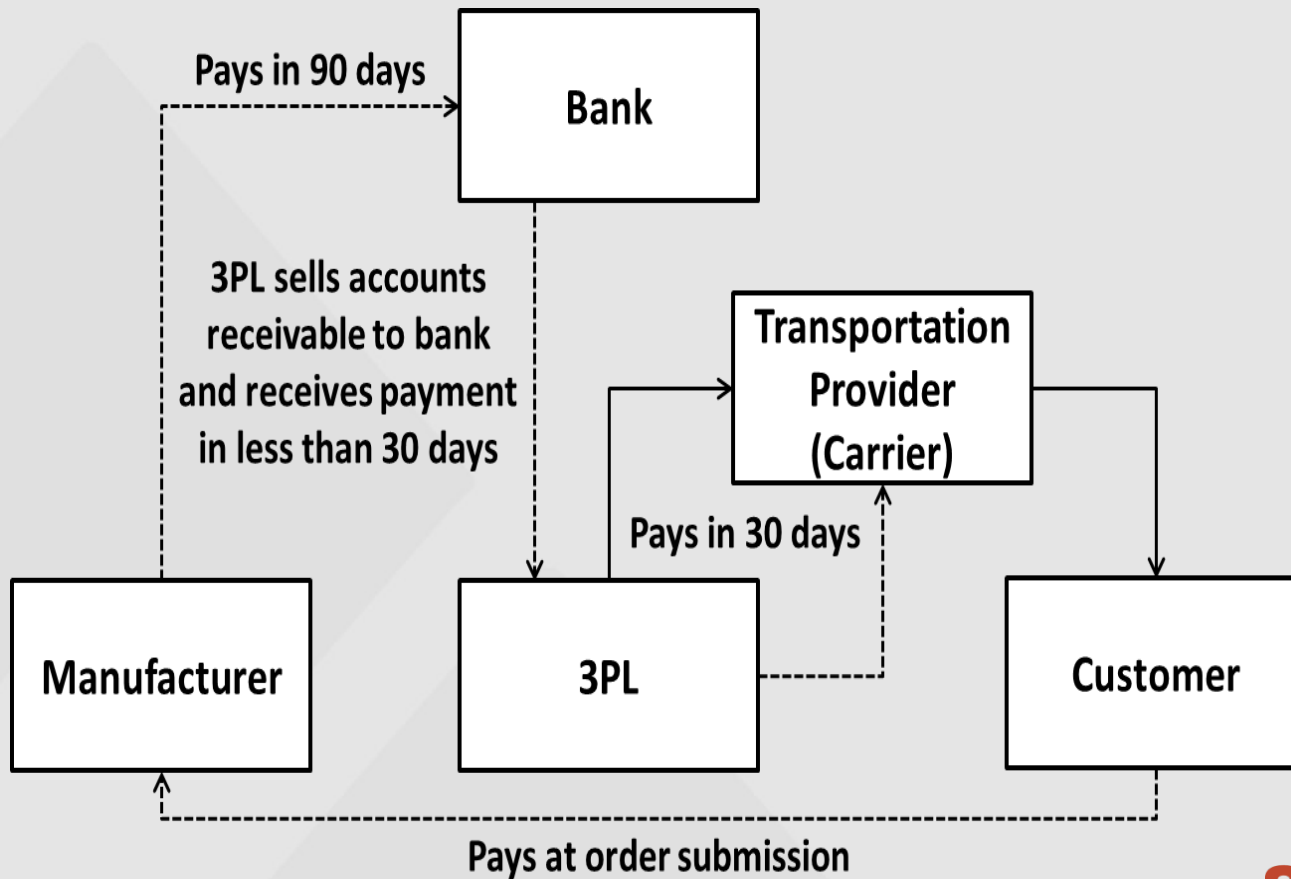




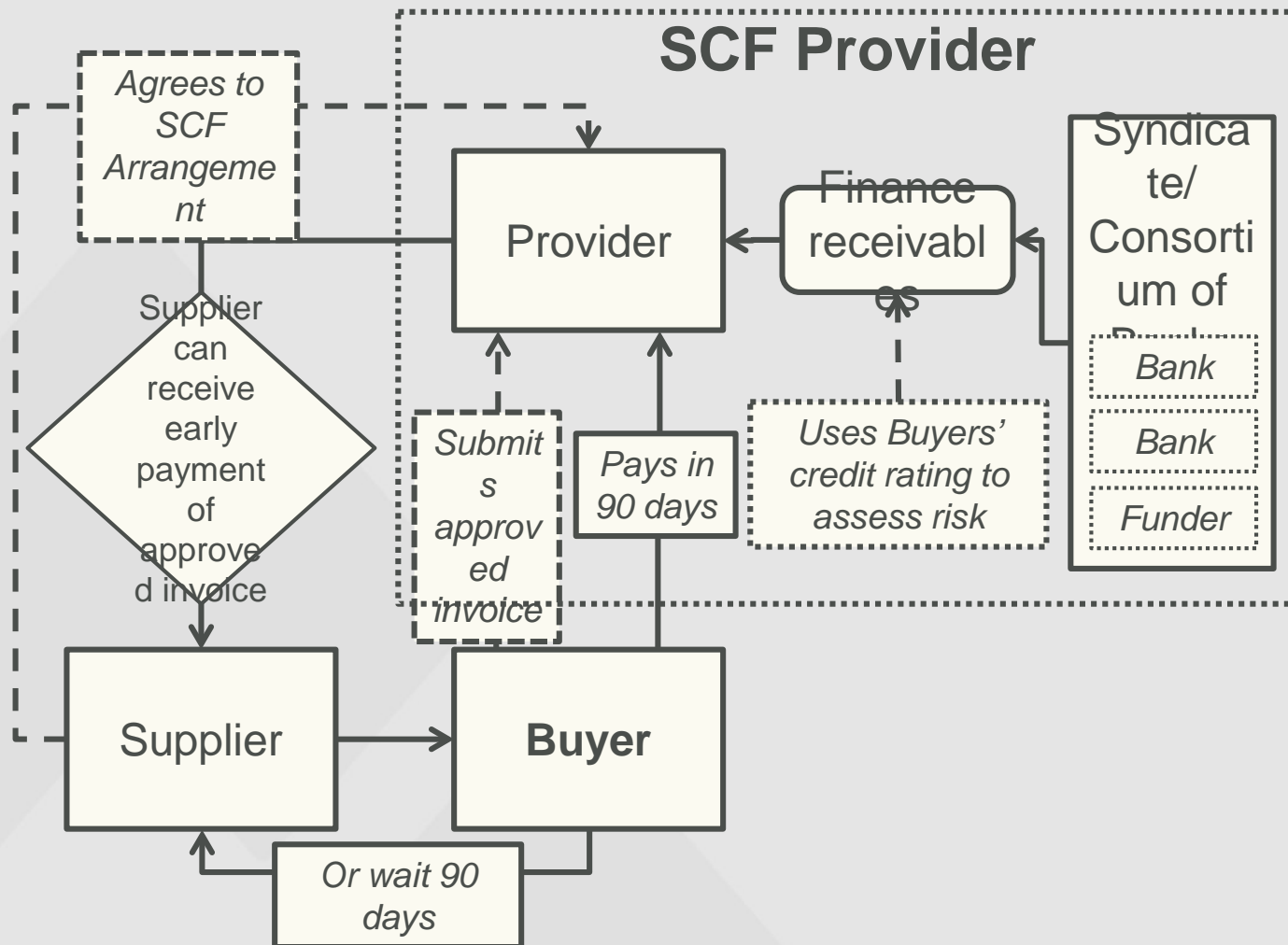






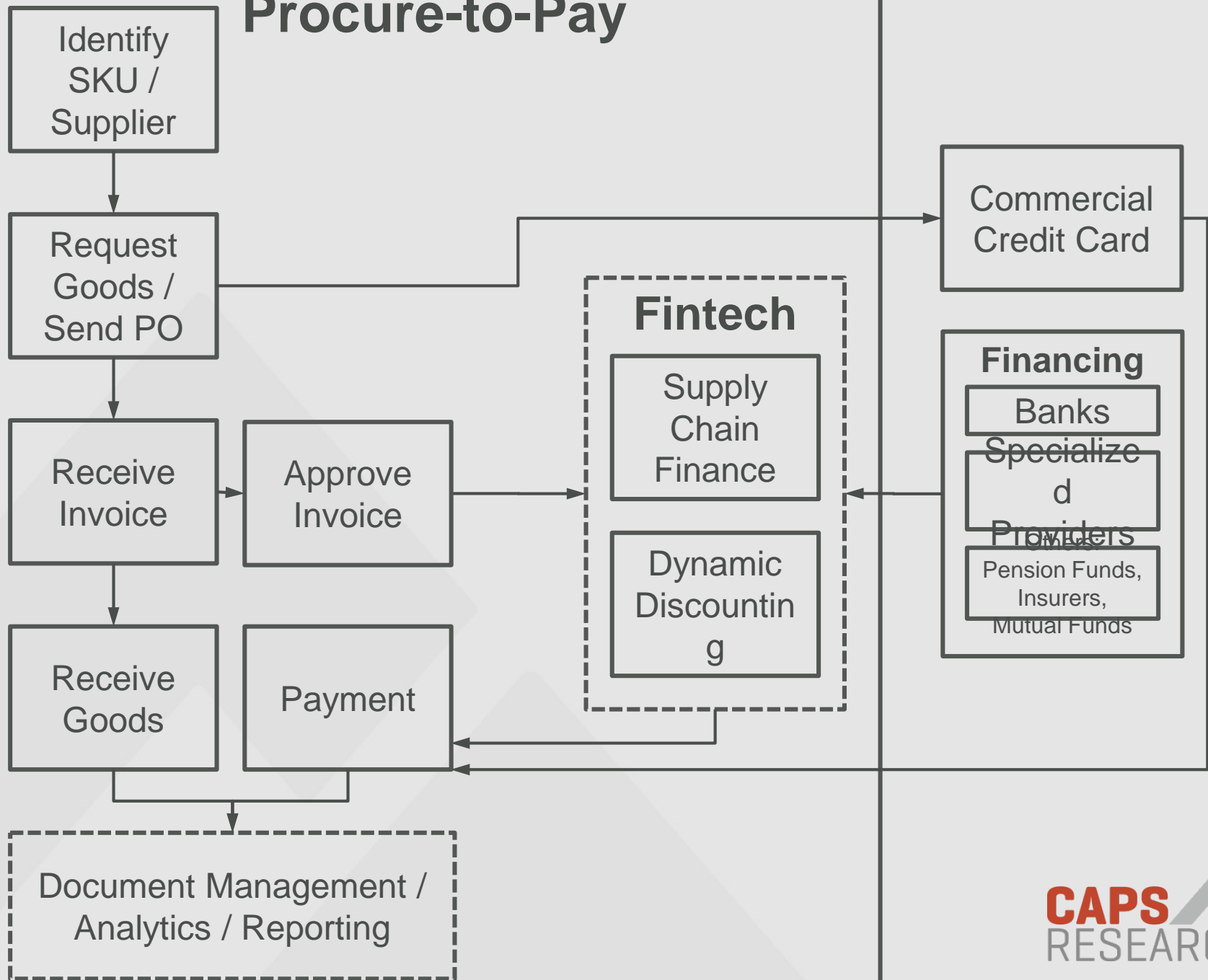


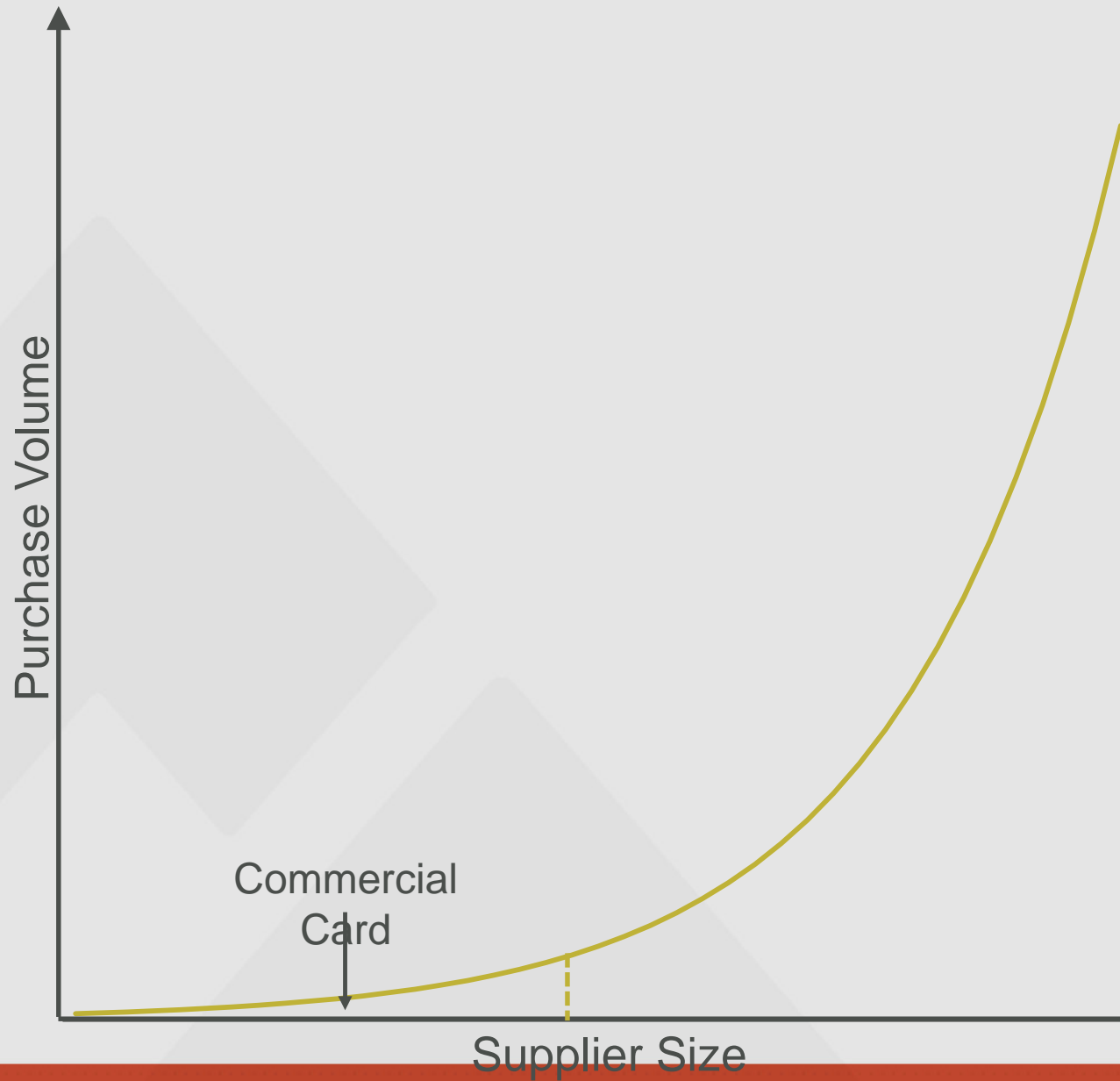
→ Product Flow    ----> Financial Flow

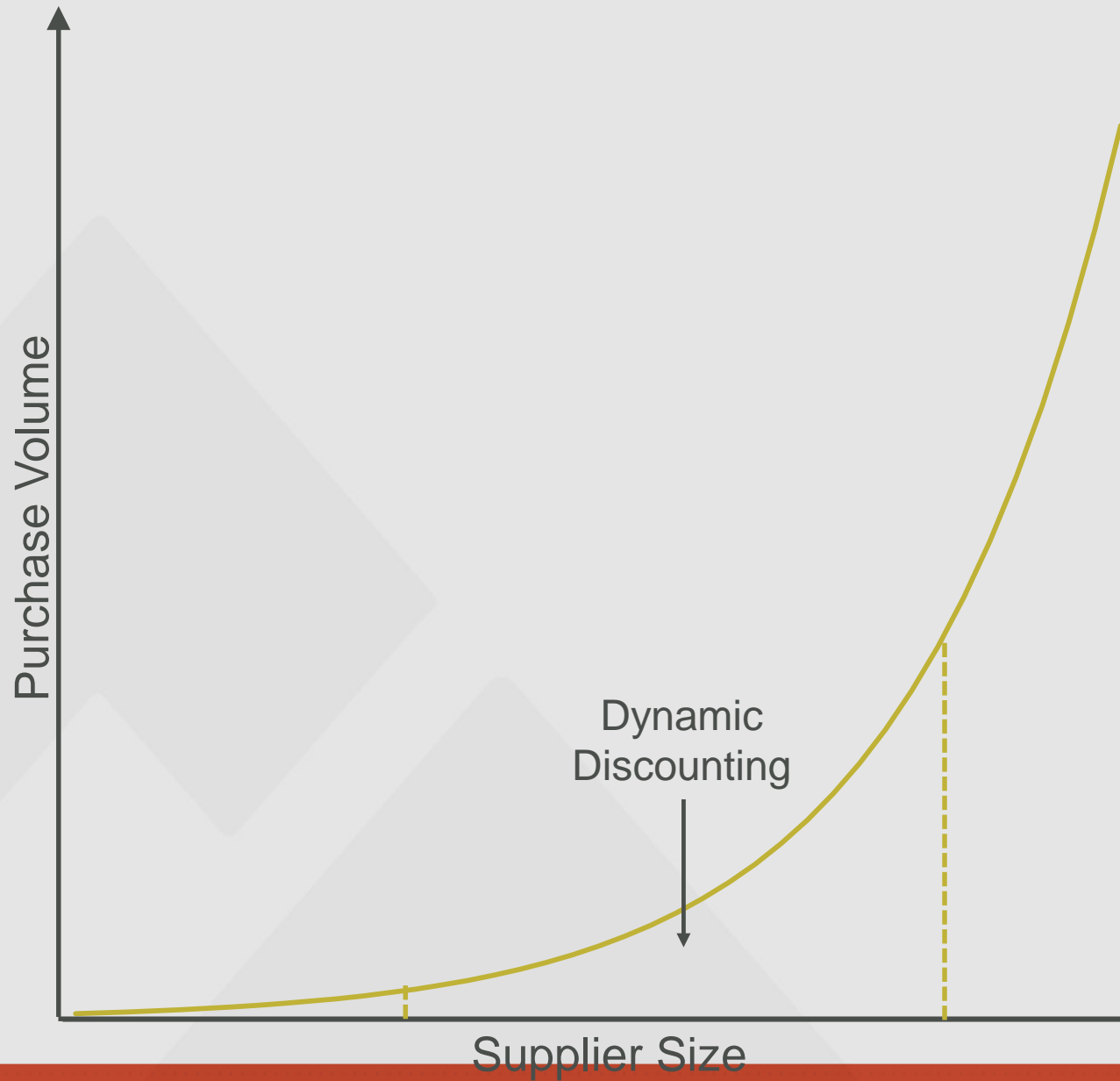


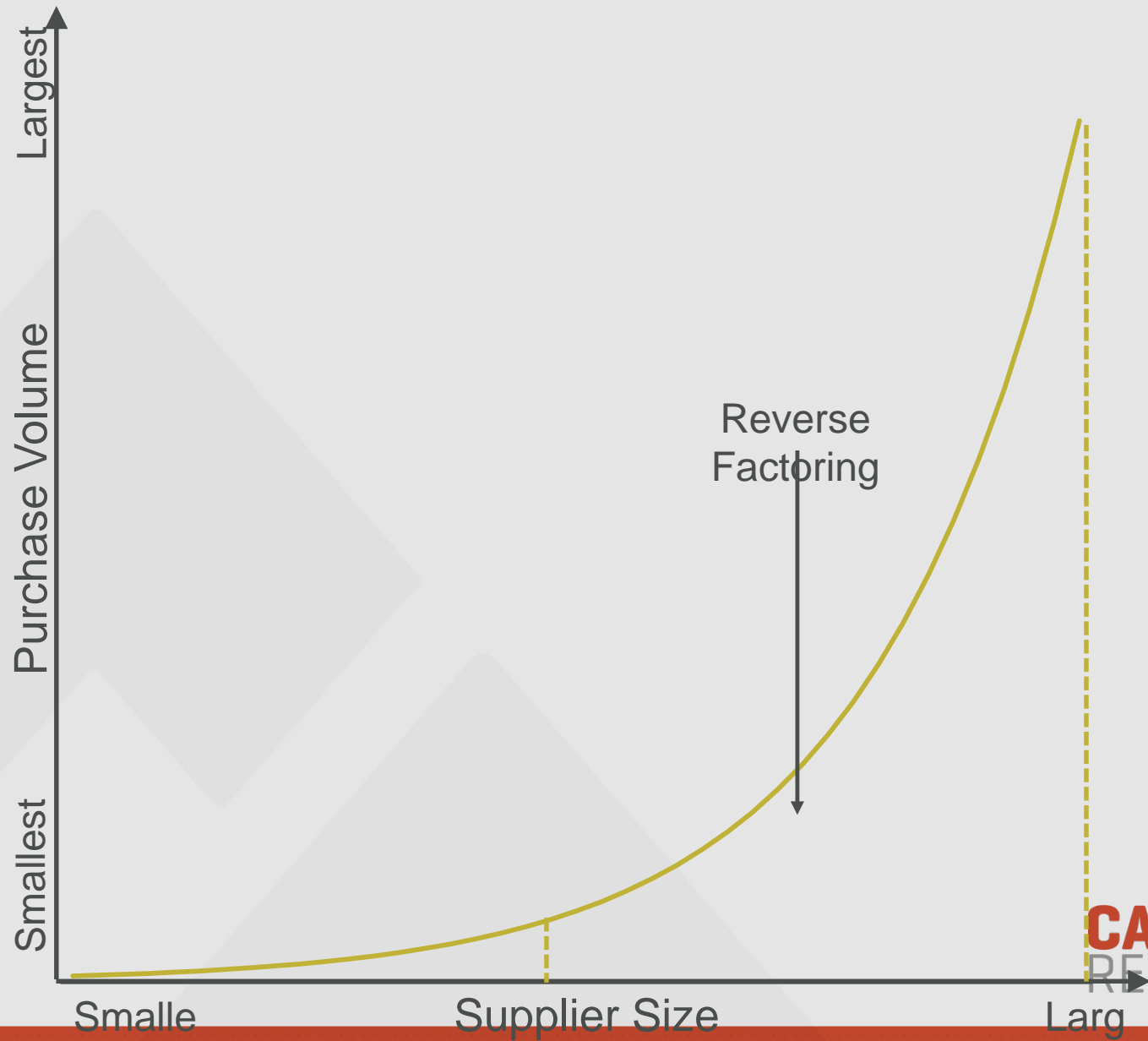


# Procure-to-Pay









# Cash Conversion Cycle

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# Sources of Data

- Income Statement:
  - Revenue
  - Cost of Goods Sold (COGS)
- Balance Sheet:
  - (Average) Accounts Receivable
  - (Average) Accounts Payable
  - (Average) Inventory
- The number of days in the period (year = 365 days, quarter = 90)

# Days Sales Outstanding

(Average) Accounts Receivable/ Revenue  
per day

- Choices:
  - Accounts Receivable
  - $AAR = (\text{beginning AR} + \text{ending AR}) / 2$
  - Time average of AR

# Days Inventory Outstanding

(Average) Inventory / COGS per day

- Choices:
  - Inventory
  - Average Inv. =  $(\text{beginning Inv.} + \text{ending Inv.}) / 2$
  - Time average of Inventory
  - De-inflate COGS?



# Days Payable Outstanding

(Average) Accounts Payable / COGS per day

- Choices:
  - Accounts Payable
  - AAP = (beginning AP + ending AP) / 2
  - Time average of AP
  - De-inflate COGS?