ACC 1701
Accounting for Decision Makers

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Quick Prior Class Refresher

What have we done in Lecture 01?

- Fundamental Accounting Equation: **ASSETS = LIABILITIES + EQUITY**
- Basic Financial Statements:

(1) Statement of Financial Position (SFP) – also known as the Balance Sheet

Assets = Liabilities + Equity

(2) Statement of Profit & Loss (SPL) – also known as the Income Statement

Net Income = Revenues – Expenses + Gain/(Loss)

(3) Statement of Changes in Equity (SCE)

Beg Equity + Net Increase in Capital + Net Income – Dividends + OCI* = End Equity

(4) Statement of Cash Flows (SCF)

Changes in Cash = CFO + CFI + CFF

**OCI = Other Comprehensive Income (will not be covered in details in this module)*

Chapter 03

The Accounting Cycle : Mechanics of Accounting

Goals for Today

We will look deeper into the accounting process today…

Concepts	Accounting Procedures	Financial Analysis
• What are "transactions"? • Accounts in the accounting system • Double-entry accounting: **DEBIT & CREDIT**	• Analyze Transactions • Journal entries • T-accounts • Trial balance	• What is FSA? • ROA • Debt Ratio

What are “Transactions”?

Past events that have an economic impact on the company

- **External events**
  - exchanges of assets/service of one party for assets/service/liabilities of other parties.
  - e.g. Best Denki buys computers from Lenovo and pays in cash
    (exchange one asset “cash” for another asset “computer”)
- **Internal events**
  - not an exchange between the firm and other parties, but have a direct effect on the accounting entity.
  - e.g. an unexpected fire destroys a factory, the company suffers from losing one asset “factory” and there is a reduction in equity

NOTE:

- An event is not a transaction if the exchange hasn’t occurred yet (e.g. signing a contract for a service is not a transaction until the service has been rendered)
- Events that cannot be reliably measured in monetary terms cannot be recorded in the accounting system and thus will not be reflected in the financial statements.

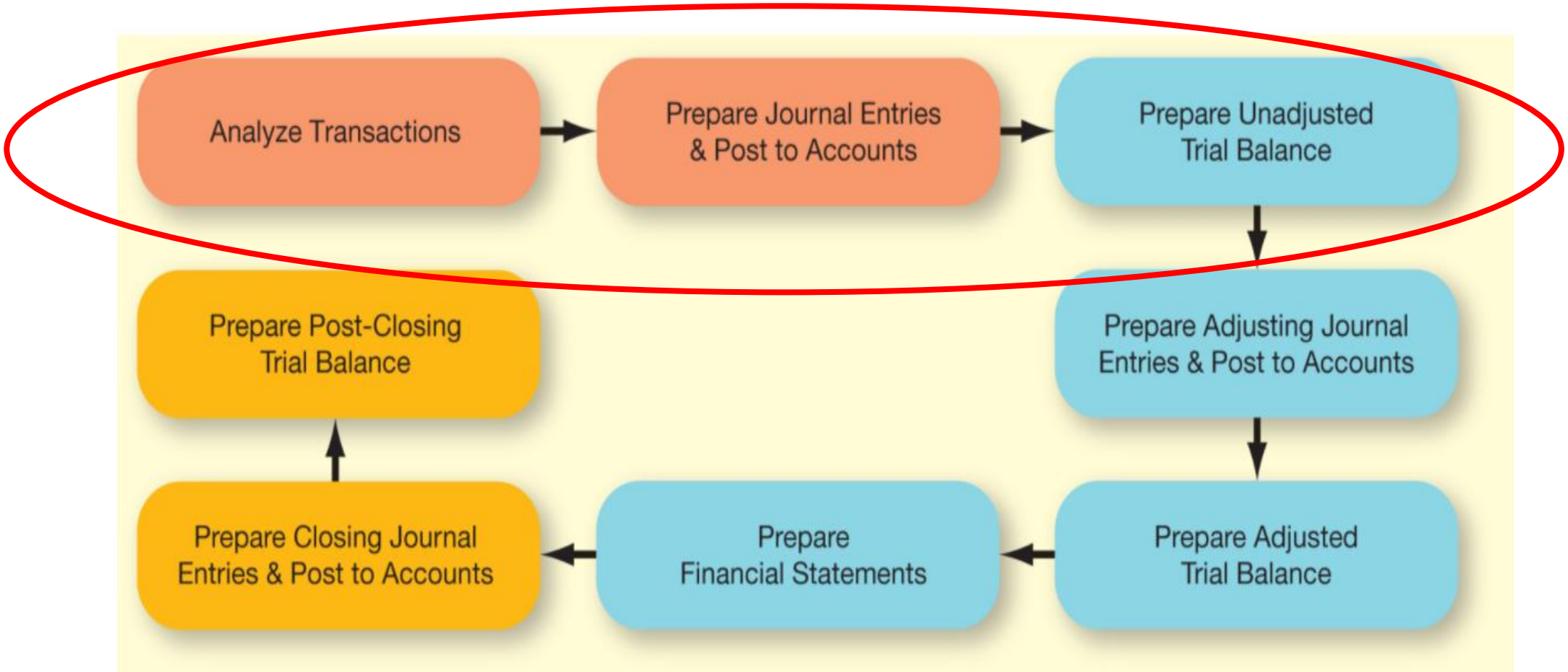
How Transactions are Recorded in the Accounting System

1) Analyze transaction
   - Using source documents that identify and describe the events
   - E.g. sales receipts, purchase orders, invoices from suppliers

2) Record transaction in a journal
   - In chronological order by date of occurrence
3) Post all the journals to a ledger account at the end of an accounting period
   - Transfer information from journals to ledger account
   - The ledger houses all the different types of accounts (e.g. cash, accounts payable, equipment, sales revenue)
4) Prepare Trial Balance
5) Use Trial Balance to prepare Financial Statements (FS)

The Accounting Cycle

The procedure for analyzing, recording, summarizing, and reporting the transactions of a business.



What is an Account?

An account keeps track of activities (recording increases/decreases)

- Account types are based on the fundamental accounting equation: asset, liability, equity, revenue, expense
- Think of an individual accounts as a summary of every transactions affecting that certain item.

All the accounts together makes up a General Ledger

- A record containing all accounts used by the company

Chart of Accounts is a list of all accounts along with individual unique identifying account numbers

- e.g. 101 Cash, 102 Accounts Receivable, 201 Accounts Payable, 301 Share capital, 401 Sales Revenue, 501 Cost of Sales etc…

Chart of Accounts Example: Different Types of Accounts

Sample chart of accounts of a hypothetical company showing some of the most common accounts you will encounter:

Assets (100–199)

Current Assets (100–150):
101 Cash
103 Notes Receivable
105 Accounts Receivable
107 Inventory
108 Supplies

Non-current Assets (151–199):
151 Land
152 Buildings
154 Office Equipment

Liabilities (200–299)

Current Liabilities (200–219):
201 Notes Payable
202 Accounts Payable
203 Salaries Payable
204 Interest Payable
206 Income Taxes Payable

Non-current Liabilities (220–239):
222 Mortgage Payable

Equity (300–399)

301 Capital Stock
330 Retained Earnings

Revenues (400–499)

400 Sales Revenue
410 Service Revenue

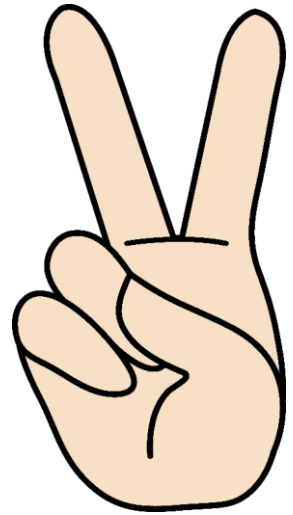
Expenses (500–599)

500 Cost of Goods Sold
501 Sales Salaries and Commissions
523 Rent Expense
525 Travel Expense
528 Advertising Expense
551 Officers' Salaries
553 Administrative Salaries
570 Payroll Taxes
571 Office Supplies Expense
573 Utilities Expense
578 Office Equipment Rent Expense
579 Accounting and Legal Fees
580 Interest Expense
590 Income Tax Expense

The Power & Beauty of Accounting

Double-Entry System

Each transaction affects at least TWO accounts!



- Most transactions with external parties involved are exchanges
  - Where the business entity gives up something and
  - Receives something in return
  - That's the **duality of effect notion**!
- Recall the accounting equation:

Assets	=	Liabilities	+	Equity
◆ Resources owned or controlled by the firm		◆ Creditors' claim against the firm's resources ◆ Requires repayment		◆ Owners' claim against the firm's resources ◆ Requires no repayment but represents ownership interest in the firm

- A transaction affects (1) the goods/resources, and (2) the claim of it.
- And remember that the accounting equation must **ALWAYS** balances after every transaction!

Debit/Credit :
The T Accounts

Left side = DEBIT **Right side = CREDIT**

Account Title

DEBIT (Dr)	**CREDIT (Cr)**

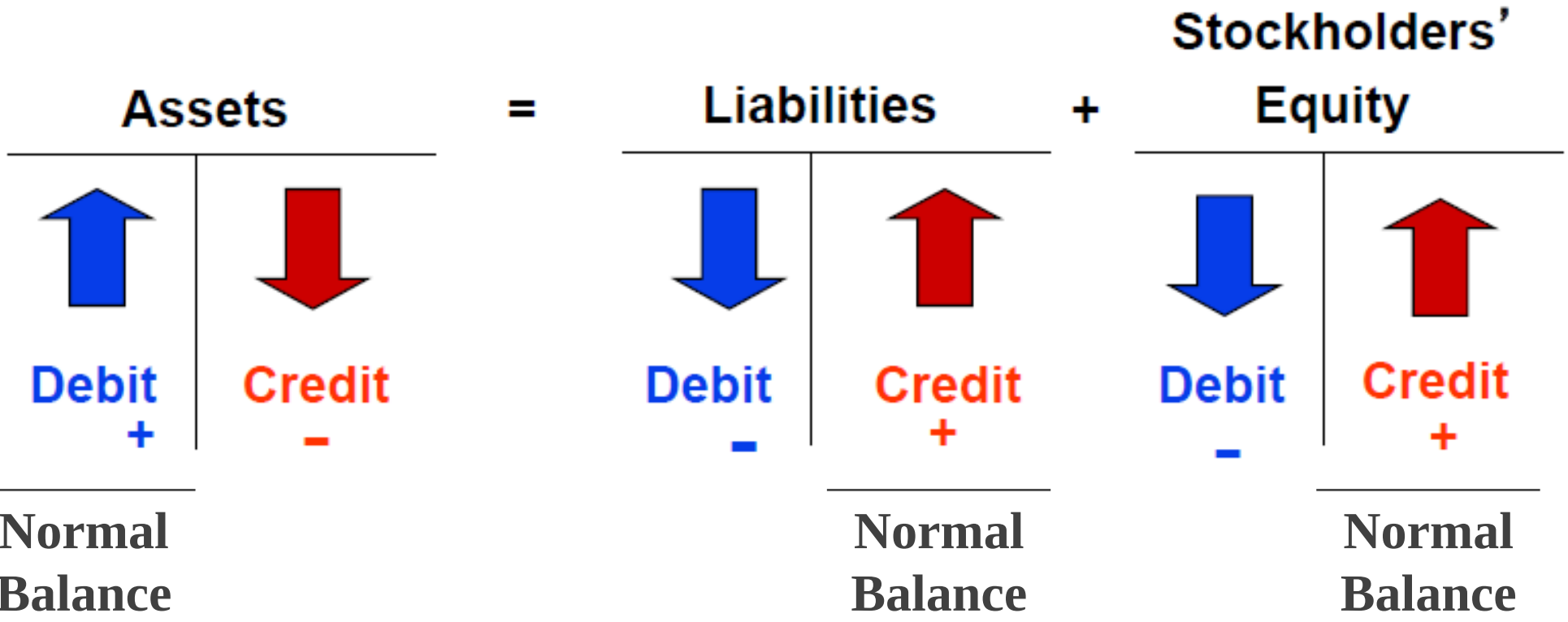
- Every business transaction involves at least **one debit** and **one credit**.
- We need to recognize two effects (duality) at the same time on (at least) two accounts!
- DEBIT must always equal CREDIT for each transaction.

Debit/Credit :
Double-Entry Accounting

The type of account determines how **increases** & **decreases** are recorded in it:

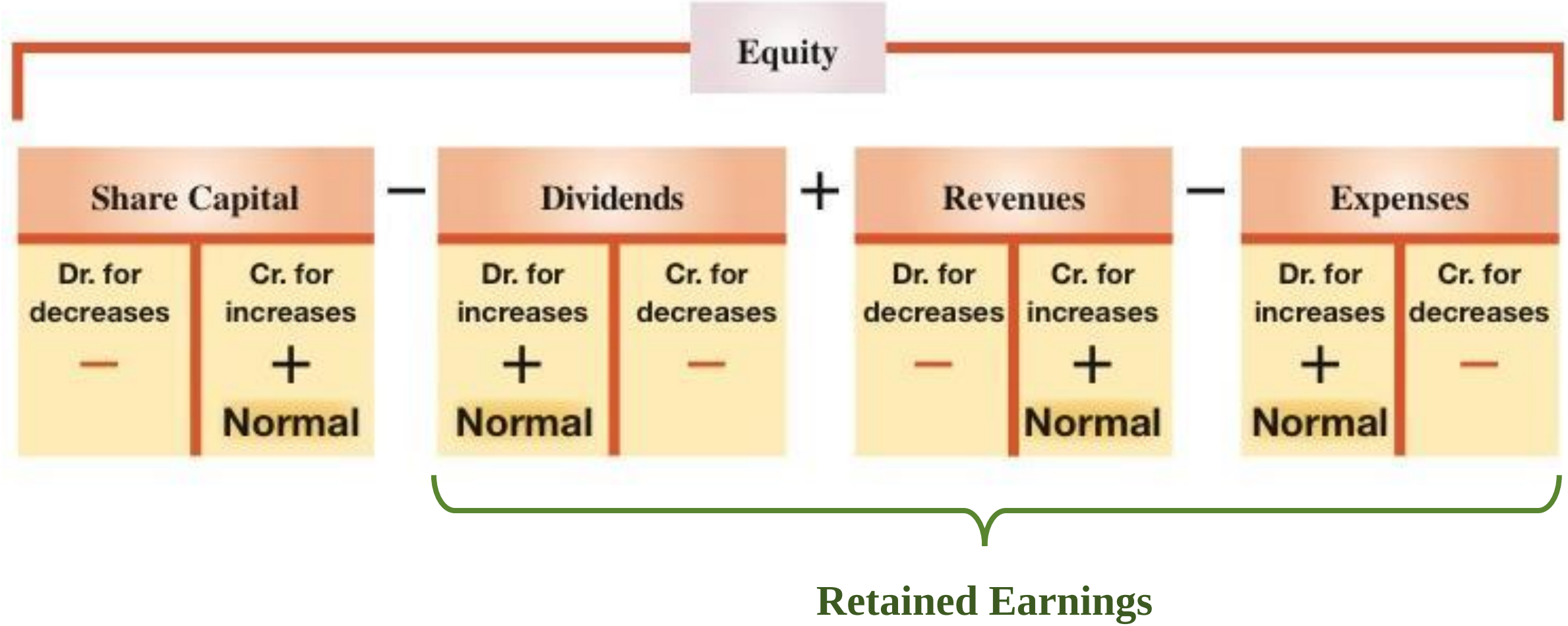
Accounting Equation

Rules of Debit and Credit



Debit/Credit :
Double-Entry Accounting

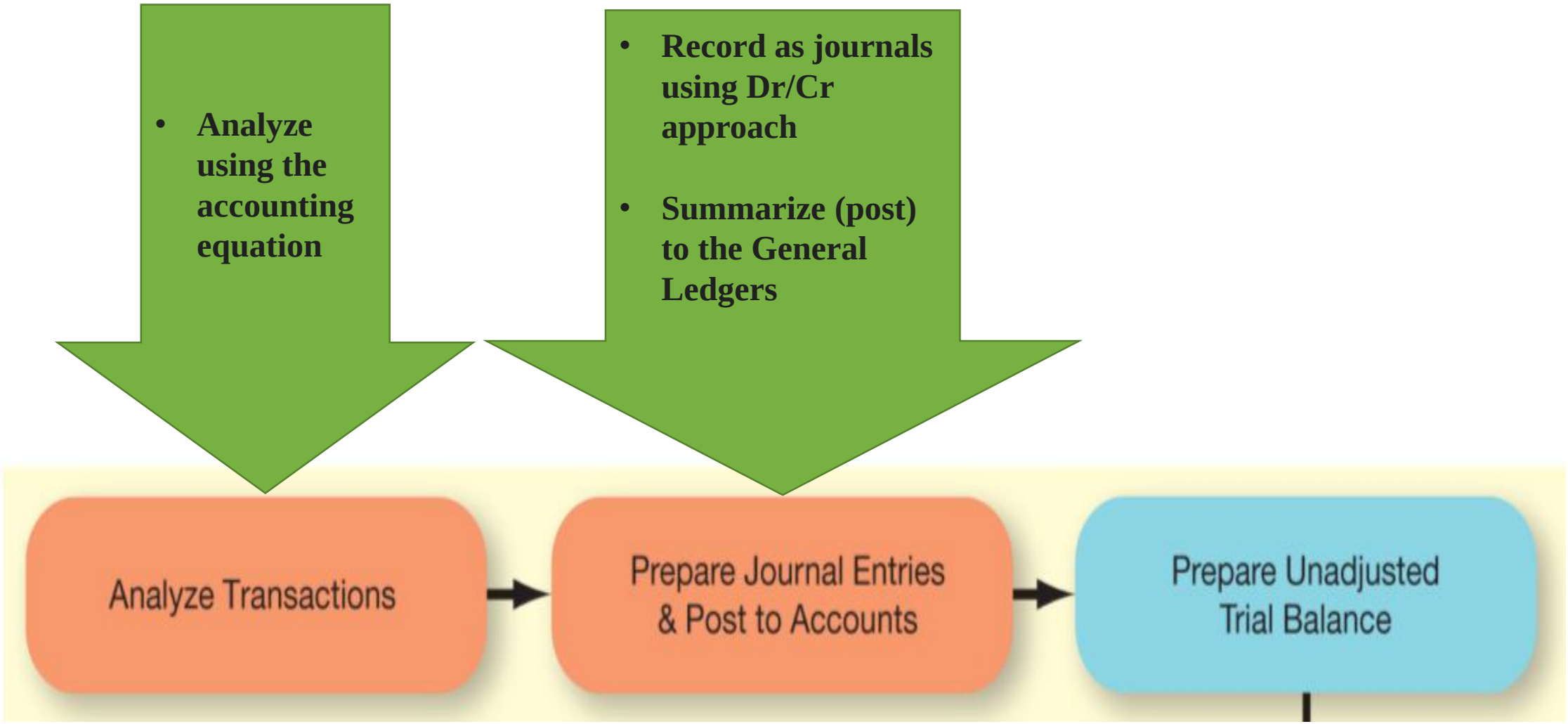
Further breakdown of Stockholders' Equity:



Accounting Procedures

Concepts	Accounting Procedures	Financial Analysis
• What are "transactions"? • Accounts in the accounting system • Double-entry accounting: **DEBIT & CREDIT**	• Analyze Transactions • Journal entries • T-accounts • Trial balance	• What is FSA? • ROA • Debt Ratio

The Accounting Cycle



Debit/Credit :
General Journal

Transactions are recorded as **journal entries** in a general journal, in chronological order.

- A journal entry is an accounting record which transactions are entered.
- A **typical journal entry** might look like this:

Provide a reference date for each transaction.

Debit entries are always written first.

General Journal — Page G1

Date	Account Titles and Explanation	Ref.	Debit	Credit
Aug. 29	Software		9,000	
	Cash			4,000
	Accounts Payable			5,000
	(Bought app using cash and credit.)			

Credits are indented and written after debits.

Total debits must equal total credits.

Dollar signs usually are omitted

Debit/Credit :
General Journal → T-Accounts

The journal entry gets summarized into the related T-accounts affected by the transaction.

For example:

		Debit	Credit
(g)	Software (+A)	9,000	
	Cash (−A)		4,000
	Accounts Payable (+L)		5,000

Software (A)

dr +		*cr −*
Beg. bal.	0	
(g)	9,000	
End. bal.	9,000	

Cash (A)

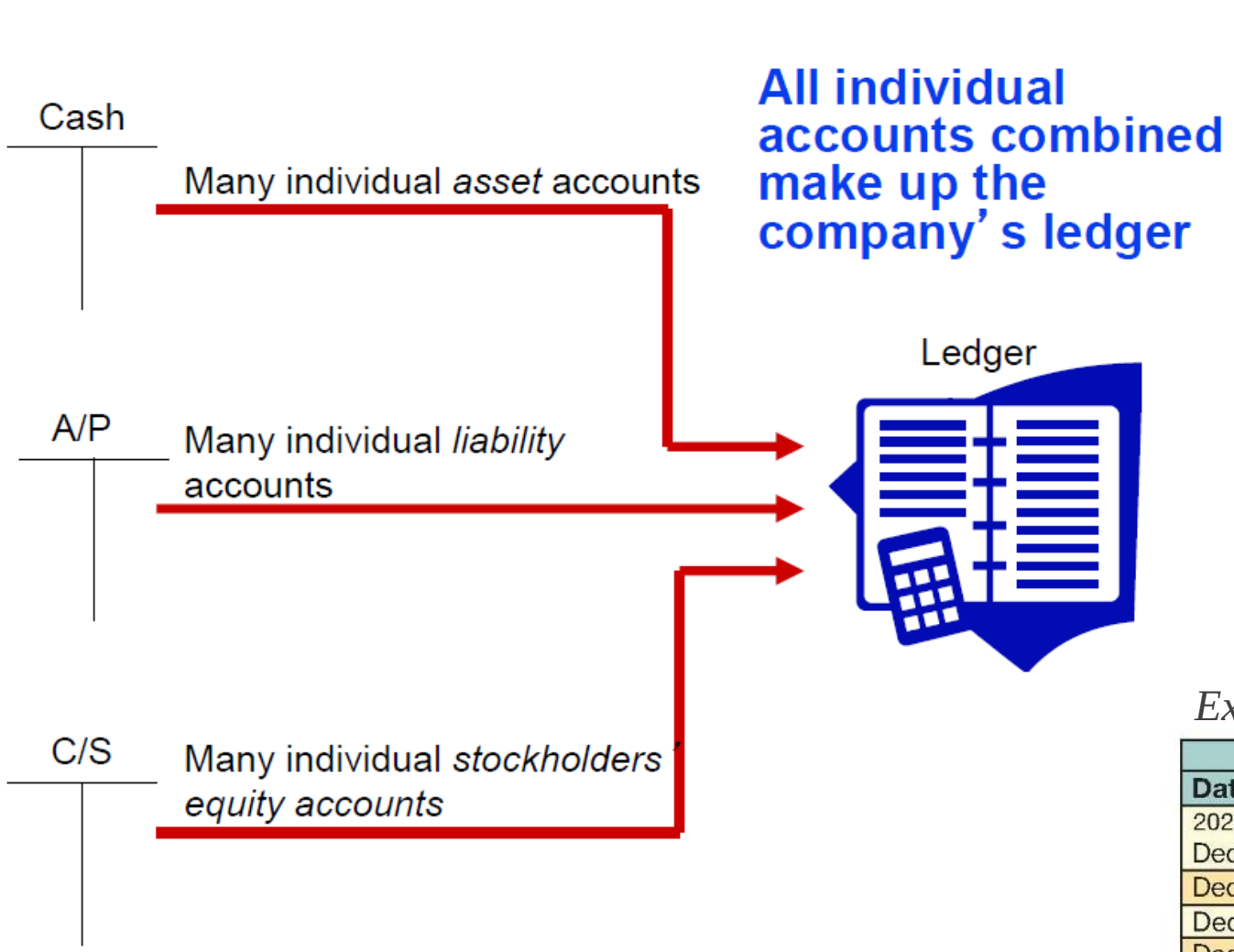
dr +		*cr −*	
Beg. bal.	0	300	(b)
(a)	10,000	5,000	(e)
(c)	20,000	4,000	(g)
End. bal.	20,700		

Accounts Payable (L)

dr −		*cr +*	
		0	Beg. bal.
(e)	5,000	9,600	(d)
		5,000	(g)
		9,600	End. bal.

The ending balance on a T-account is the difference between the debit and credit entries in the account

Debit/Credit :
T-Accounts → General Ledger

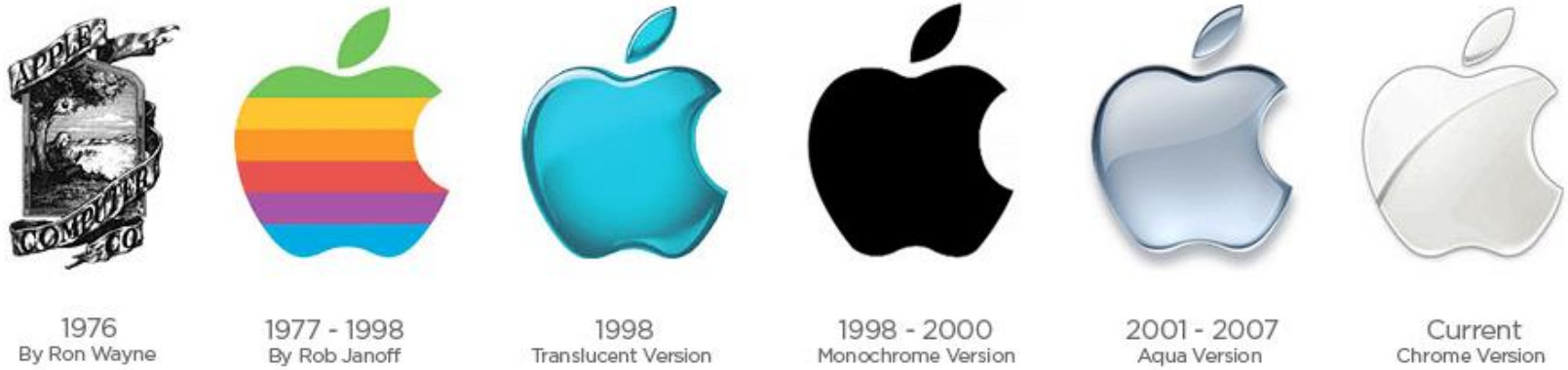


Note:
While T-accounts are useful for illustrative learning purposes, they are not really used in practice. Real companies simply use balance column ledger accounts to summarize their transactions.
(see an example below)

Example of a Cash ledger account:

Cash					Account No. 101
Date	**Explanation**	**PR**	**Debit**	**Credit**	**Balance**
2020 Dec. 1		G1	30,000		30,000
Dec. 2		G1		2,500	27,500
Dec. 3		G1		26,000	1,500
Dec. 10		G1	4,200		5,700

The Apple Story:
Recording Transactions in the Accounting System

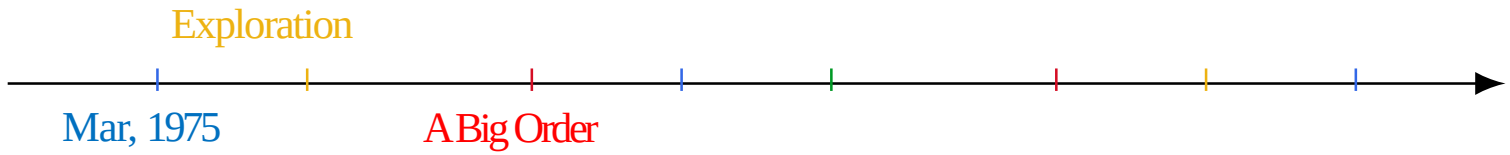


- Let's now hop on the time machine and travel back in time to 1976, with a story about how Steve Jobs and Steve Wozniak founded Apple Computer in 1976.
- We will (1) analyze the transactions and see how it affects the accounting equation

  (2) record the transactions using journal entries & illustrate the T-accounts

Apple Story - Event #1-3

(1) Transaction Analysis



1) In 1975, Steve Wozniak and Steve Jobs attended a club called Homebrew Computer Club and got inspired.
2) Wozniak estimated that it would cost $1,000 to lay out the design of the computer and would sell for $200 each set.
3) Jobs got a big order from The Byte Shop, whose boss ordered 100 assembled sets, and would pay $500 for each set, cash on delivery.

Should there be any transactions recorded for the above?

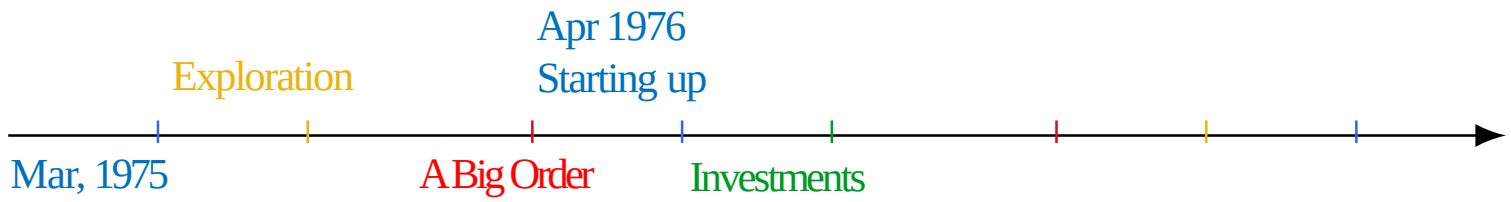
NO!

Why not?

Because there are no exchanges of goods/services.

Apple Story – Event #4

(1) Transaction Analysis



4) Wozniak sold his HP scientific calculator for $500, Jobs sold his VW bus for $800, and they borrowed $5,000 from a friend to start their company "Apple".

ASSETS (A)	=	LIABILITIES (L)	+	EQUITY (E)
+ 500 Cash				+ $500 Share Capital (Wozniak)
+ 800 Cash				+ $800 Share Capital (Jobs)
+ $5,000 Cash		+ $5,000 Debt		
$6,300	**=**	**$5,000**	**+**	**$1,300**

Transaction Type:
> Issuance of Shares.
> Financing through debt.

Verify that the accounting equation remains in balance!

Apple Story – Event #4
(2) Journal Entries & T-Accounts

4) Journal entry (General Journal):

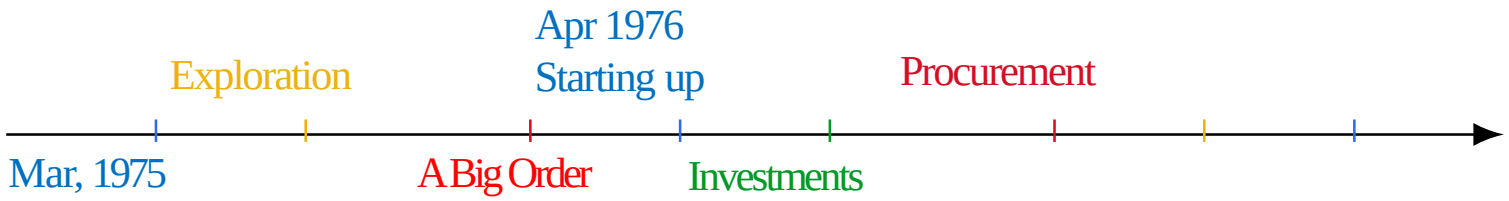
		Debit	Credit
4)	Cash (A)	6,300	
	Share Capital (E)		1,300
	Debt (L)		5,000

- Post to T-Accounts (General Ledger):

ASSETS	=	**LIABILITIES**	+	**EQUITY**
Cash		***Debt***		***Share Capital***
4) $1,300			4) $5,000		4) $1,300
4) $5,000					

Apple Story – Event #5

(1) Transaction Analysis



5) Wozniak spent $1,000 to lay out the design, of which let's assume $200 was used to buy equipment, and $800 for development expense.

ASSETS (A)	=	LIABILITIES (L)	+	EQUITY (E)
$6,300	=	**$5,000**	+	**$1,300**
- $1,000 Cash				- $800 Development Expense
+ $200 Equipment				
$5,500		**$5,000**		**$500**

Transaction Type:
> Acquiring equipment
> Incurring operating expense

Verify that the accounting equation remains in balance!

Apple Story – Event #5
(2) Journal Entries & T-Accounts

5) Journal entry (General Journal):

		Debit	Credit
5)	Equipment (A)	200	
	Development Expense (E)	800	
	Cash (A)		1,000

- Post to T-Accounts (General Ledger):

ASSETS = **LIABILITIES** + **EQUITY**

Cash

4) $1,300	5) $1,000
4) $5,000	

Debt

	4) $5,000

Share Capital

	4) $1,300

Equipment

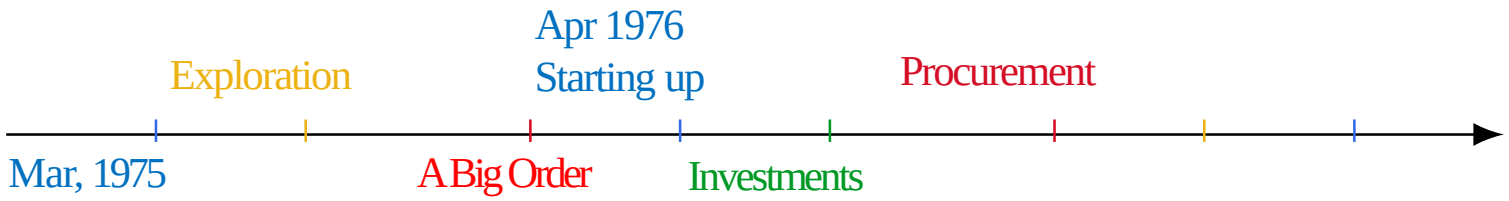
5) $200	

Development Expense

5) $800	

Apple Story – Event #6

(1) Transaction Analysis



6) Jobs purchased component parts from Cramer Electronics on credit, costing $20,000, payable on a net 30-days terms. These parts are to be used for producing the computers.

ASSETS (A)	=	LIABILITIES (L)	+	EQUITY (E)
$5,500	=	**$5,000**	+	**$500**
+ $20,000 Inventory		+ $20,000 Accounts Payable		
$25,500		**$25,000**		**$500**

Transaction Type: Purchase of inventory parts on credit

Verify that the accounting equation remains in balance!

Apple Story – Event #6
(2) Journal Entries & T-Accounts

6) Journal entry (General Journal):

		Debit	Credit
6)	Inventory (A)	20,000	
	Accounts Payable (L)		20,000

- Post to T-Accounts (General Ledger):

ASSETS = **LIABILITIES** + **EQUITY**

Cash

4) $1,300	5) $1,000
4) $5,000	

Equipment

5) $200	

Inventory

6) $20,000	

Debt

	4) $5,000

Accounts Payable

	6) $20,000

Share Capital

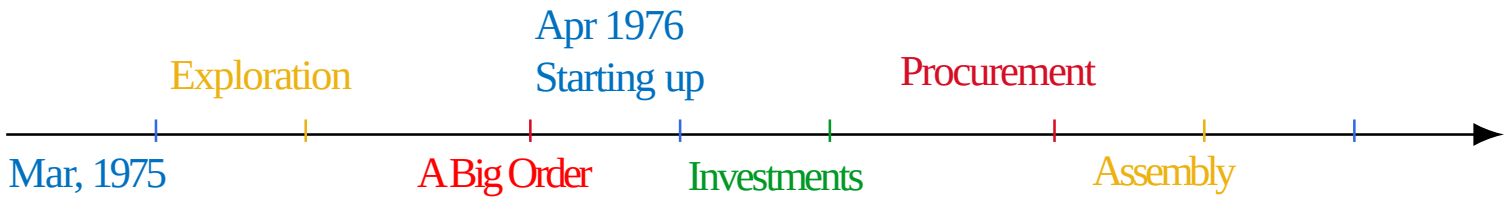
	4) $1,300

Development Expense

5) $800	

Apple Story – Event #7

(1) Transaction Analysis



7) In ten days, the two Steves assembled 100 sets of computer circuits in Wozniak family's garage, with additional $2,000 spent on parts.

ASSETS (A)	=	LIABILITIES (L)	+	EQUITY (E)
$25,500	=	**$25,000**	+	**$500**
- $2,000 Cash				
+ $2,000 Inventory				
$25,500		**$25,000**		**$500**

Transaction Type: Purchase of inventory parts by cash

Verify that the accounting equation remains in balance!

Apple Story – Event #7
(2) Journal Entries & T-Accounts

7) Journal entry (General Journal):

		Debit	Credit
7)	Inventory (A)	2,000	
	Cash (A)		2,000

- Post to T-Accounts (General Ledger):

ASSETS = **LIABILITIES** + **EQUITY**

Cash

4) $1,300	5) $1,000
4) $5,000	7) $2,000

Equipment

5) $200	

Inventory

6) $20,000	
7) $2,000	

Debt

	4) $5,000

Accounts Payable

	6) $20,000

Share Capital

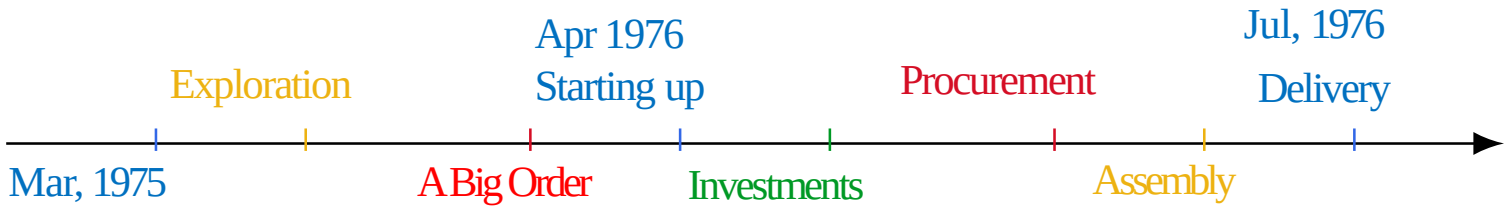
	4) $1,300

Development Expense

5) $800	

Apple Story – Event #8

(1) Transaction Analysis



8) In July, they delivered the 100 computer circuits to Byte Shop and got $40,000 in cash, and $10,000 credit. Byte sold each computer at $666.

ASSETS (A)	=	LIABILITIES (L)	+	EQUITY (E)
$25,500	=	**$25,000**	+	**$500**
+ $40,000 Cash + $10,000 Receivables				+ $50,000 Sales Revenue
- $22,000 Inventory				- $22,000 Cost of Goods Sold
$53,500		**$25,000**		**$28,500**

Transaction Type: Sold products for cash and credit.

Verify that the accounting equation remains in balance!

Apple Story – Event #8
(2) Journal Entries & T-Accounts

8) Journal entry (General Journal):

		Debit	Credit
8a)	Cash (A)	40,000	
	Accounts Receivable (A)	10,000	
	Sales Revenue (E)		50,000
8b)	Cost of Goods Sold (E)	22,000	
	Inventory (A)		22,000

*(Note that how much Byte sold the computer for to its own customers is **irrelevant** to Apple and is not a transaction related to Apple.)*

When company sell goods:

- Sales, whether made on account or for cash, require entries that reflect not only the sale, but also the cost of the inventory sold.
- The **"cost of goods sold"** is an expense. It is subtracted from the sales revenue in the Income Statement to determine the profitability of sales transactions.

Apple Story – Event #8
(2) Journal Entries & T-Accounts

8) (continued)

- Post to T-Accounts (General Ledger):

ASSETS = **LIABILITIES** + **EQUITY**

Cash

4) $1,300	5) $1,000
4) $5,000	7) $2,000
8) $40,000	

Equipment

5) $200	

Inventory

6) $20,000	8) $22,000
7) $2,000	

Accounts Receivable

8) $10,000	

Debt

	4) $5,000

Accounts Payable

	6) $20,000

Share Capital

	4) $1,300

Development Expense

5) $800	

Cost of Goods Sold

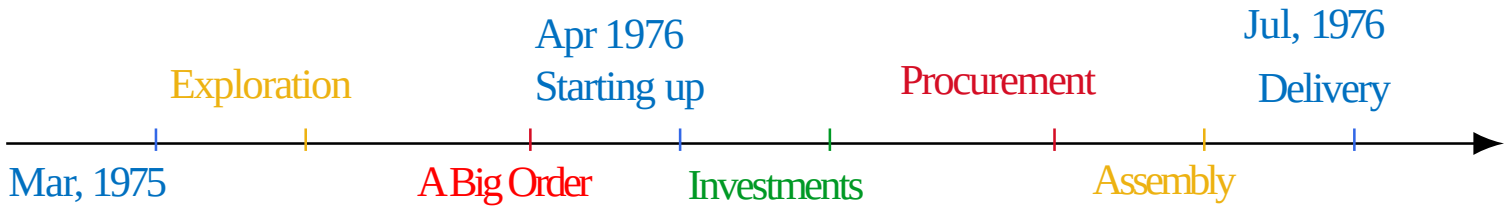
8) $22,000	

Sales Revenue

	8) $50,000

Apple Story – Event #9 &10

(1) Transaction Analysis



9) A week later, Byte Shop paid the remaining $10,000 in cash.
10) Apple paid back Cramer Electronics $20,000.

ASSETS (A)	=	LIABILITIES (L)	+	EQUITY (E)
$53,500	=	**$25,000**	+	**$28,500**
+ $10,000 Cash - $10,000 Receivables				
- $20,000 Cash		-$20,000 Accounts Payables		
$33,500		**$5,000**		**$28,500**

Transaction Type:
> Collection of cash from receivables.
> Payment of accounts payable.

Verify that the accounting equation remains in balance!

Apple Story – Event #9 &10
(2) Journal Entries & T-Accounts

9) & 10) Journal entry (General Journal):

		Debit	Credit
9)	Cash (A)	10,000	
	Accounts Receivable (A)		10,000
10)	Accounts Payable (L)	20,000	
	Cash (A)		20,000

- The collection of receivables merely involves exchanging one asset for another. No revenue is involved here.
- The payment of a payable merely involves a reduction an asset and liability (i.e. using an asset to reduce a liability).

Apple Story – Event #9 &10
(2) Journal Entries & T-Accounts

9 & 10) (continued): Post to T-Accounts (General Ledger):

ASSETS = **LIABILITIES** + **EQUITY**

Cash

4) $1,300	5) $1,000
4) $5,000	7) $2,000
8) $40,000	10) $20,000
9) $10,000	

Equipment

5) $200	

Inventory

6) $20,000	8) $22,000
7) $2,000	

Accounts Receivable

8) $10,000	9) $10,000

Debt

	4) $5,000

Accounts Payable

10) $20,000	6) $20,000

Share Capital

	4) $1,300

Development Expense

5) $800	

Cost of Goods Sold

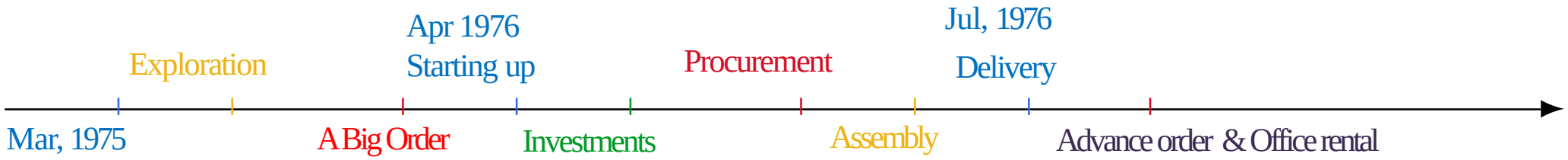
8) $22,000	

Sales Revenue

	8) $50,000

Apple Story – Event #11 & 12

(1) Transaction Analysis



11) Apple plans to move out of the garage next year and paid $3,500 in advance rent for a small office to start next year.

12) Byte Shop places an advance order to Apple for more computers to be delivered next year and paid $11,000 cash to Apple.

ASSETS (A)	=	LIABILITIES (L)	+	EQUITY (E)
$33,500	=	**$5,000**	+	**$28,500**
- $3,500 Cash + $3,500 Prepaid Rent				
+ $11,000 Cash		+ $11,000 Unearned Revenue		
$44,500		**$16,000**		**$28,500**

Transaction Type:
> Payment of advance rent.
> Collect cash in advance from customer.

Apple Story – Event #11 & 12
(2) Journal Entries & T-Accounts

11) & 12) Journal entry (General Journal):

		Debit	Credit
11)	Prepaid Rent (A)	3,500	
	Cash (A)		3,500
12)	Cash (A)	11,000	
	Unearned Sales Revenue (L)		11,000

- Prepaid Expense is an asset because it is a resource that a company has paid for, but has not enjoyed the benefits of it.
- Unearned Revenue is a liability because the company has received payment for goods/service yet to be delivered, so it is an obligation that needs to be fulfilled in the future.

Apple Story – Event #11 & 12
(2) Journal Entries & T-Accounts

11 & 12) (continued): Post to T-Accounts (General Ledger):

ASSETS = **LIABILITIES** + **EQUITY**

Cash

4) $1,300	5) $1,000
4) $5,000	7) $2,000
8) $40,000	10) $20,000
9) $10,000	11) $3,500
12) $11,000	

Equipment

5) $200	

Inventory

6) $20,000	8) $22,000
7) $2,000	

Accounts Receivable

8) $10,000	9) $10,000

Prepaid Rent

11) $3,500	

Debt

	4) $5,000

Accounts Payable

10) $20,000	6) $20,000

Unearned Sales Revenue

	12) $11,000

Share Capital

	4) $1,300

Development Expense

5) $800	

Cost of Goods Sold

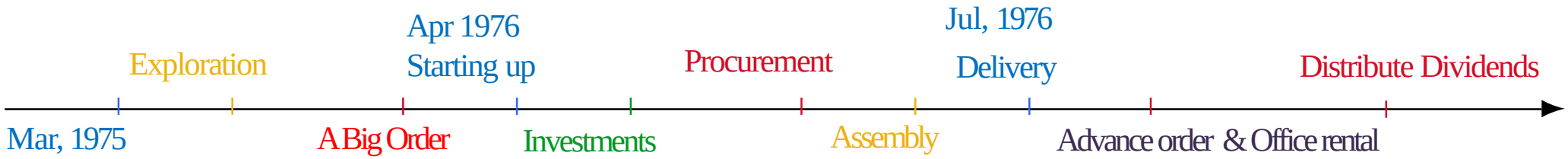
8) $22,000	

Sales Revenue

	8) $50,000

Apple Story – Event #13

(1) Transaction Analysis



13) Wozniak needs to buy a new scientific calculator and Jobs a new car, so Apple distributed $4,000 dividends in cash to its owners.

ASSETS (A)	=	LIABILITIES (L)	+	EQUITY (E)
$44,500	=	**$16,000**	+	**$28,500**
- $4,000 cash				- $4,000 dividends
$40,500		**$16,000**		**$24,500**

Transaction Type: Distribution of dividends in cash.

Verify that the accounting equation remains in balance!

Apple Story – Event #13
(2) Journal Entries & T-Accounts

13) Journal entry (General Journal):

		Debit	Credit
13)	Dividends (E)	4,000	
	Cash (A)		4,000

- Dividends results in a reduction of equity (retained earnings) as its decreases the owners' claim on the assets of the company.
- Corporations that are profitable generally pay dividends to their shareholders.

Apple Story – Event #13
(2) Journal Entries & T-Accounts

13) (continued): Post to T-Accounts (General Ledger):

ASSETS = **LIABILITIES** + **EQUITY**

Cash

4) $1,300	5) $1,000
4) $5,000	7) $2,000
8) $40,000	10) $20,000
9) $10,000	11) $3,500
12) $11,000	13) $4,000

Equipment

5) $200	

Inventory

6) $20,000	8) $22,000
7) $2,000	

Accounts Receivable

8) $10,000	9) $10,000

Prepaid Rent

11) $3,500	

Debt

	4) $5,000

Accounts Payable

10) $20,000	6) $20,000

Unearned Sales Revenue

	12) $11,000

Share Capital

	4) $1,300

Dividends

13) $4,000	

Development Expense

5) $800	

Cost of Goods Sold

8) $22,000	

Sales Revenue

	8) $50,000

Apple Story : Summary of Transaction Analysis using Accounting Equation

No.	ASSETS	=	LIABILITIES	+	EQUITY
(1) To (3) NO TRANSACTIONS TO BE RECORDED					
(4)	+ 500 Cash + 800 Cash + $5,000 Cash		+ $5,000 Debt		+ $500 Share capital + $800 Share capital
(5)	- $1,000 Cash + $200 Equipment				- $800 Development Expense
(6)	+ $20,000 Inventory		+ $20,000 Accounts Payable		
(7)	- $2,000 Cash + $2,000 Inventory				
(8)	+ $40,000 Cash + $10,000 Receivables - $22,000 Inventory				+ $50,000 Sales Revenue - $22,000 Cost of Goods Sold
(9)	+ $10,000 Cash - $10,000 Receivables				
(10)	- $20,000 Cash		-$20,000 Accounts Payables		
(11)	- $3,500 Cash + $3,500 Prepaid Rent				
(12)	+ $11,000 Cash		+ $11,000 Unearned Revenue		
(13)	- $4,000 Cash				- $4,000 Dividends
	$40,500 Assets	**=**	**$16,000 Liabilities**	**+**	**$24,500 Equity**

The accounting equation ALWAYS remains in balance!

Apple Story:
Summary of Journal Entries

		Debit	Credit
4)	Cash (A)	6,300	
	Share Capital (E)		1,300
	Debt (L)		5,000
5)	Equipment (A)	200	
	Development Expense (E)	800	
	Cash (A)		1,000
6)	Inventory (A)	20,000	
	Accounts Payable (L)		20,000
7)	Inventory (A)	2,000	
	Cash (A)		2,000
8a)	Cash (A)	40,000	
	Accounts Receivable (A)	10,000	
	Sales Revenue (E)		50,000

		Debit	Credit
8b)	Cost of Goods Sold (E)	22,000	
	Inventory (A)		22,000
9)	Cash (A)	10,000	
	Accounts Receivable (A)		10,000
10)	Accounts Payable (L)	20,000	
	Cash (A)		20,000
11)	Prepaid Rent (A)	3,500	
	Cash (A)		3,500
12)	Cash (A)	11,000	
	Unearned Sales Revenue (L)		11,000
13)	Dividends (E)	4,000	
	Cash (A)		4,000

Total Debit $149,800 = Total Credit $149,800

Apple Story : Summary of T-accounts

Assets $40,500 = Liabilities $16,000 + Equity $24,500

ASSETS

Cash

4) $1,300	5) $1,000
4) $5,000	7) $2,000
8a) $40,000	10) $20,000
9) $10,000	11) $3,500
12) $11,000	13) $4,000
Bal $36,800	

Equipment

5) $200	
Bal $200	

Inventory

6) $20,000	8b) $22,000
7) $2,000	
Bal $0	

Accounts Receivable

8a) $10,000	9) $10,000
Bal $0	

Prepaid Rent

11) $3,500	
Bal $3,500	

=

LIABILITIES

Debt

	4) $5,000
	Bal $5,000

Accounts Payable

10) $20,000	6) $20,000
	Bal $0

Unearned Sales Revenue

	12) 11,000
	Bal $11,000

+

EQUITY

Share Capital

	4) $1,300
	Bal $1,300

Dividends

13) $4,000	
Bal $4,000	

Development Expense

5) $800	
Bal $800	

Cost of Goods Sold

8b) $22,000	
Bal $22,000	

Sales Revenue

	8a) $50,000
	Bal $50,000

Trial Balance

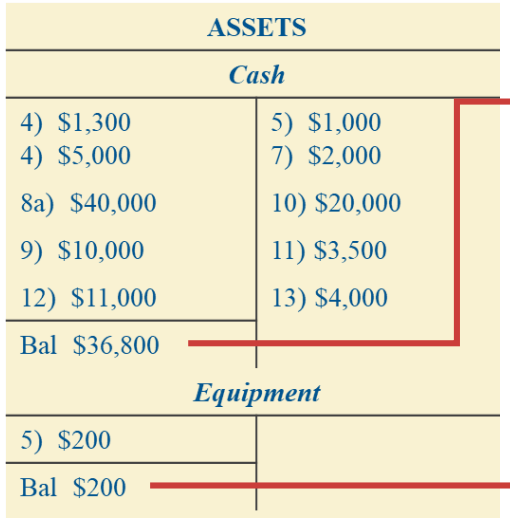
A list of all accounts with their balances to provide a check on the equality of debits and credits. **(Debit = Credit)**

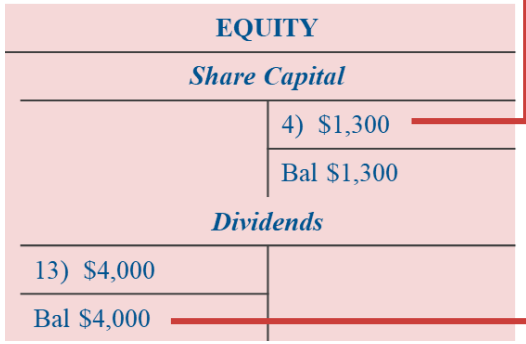
- Trial balance lists accounts in financial statement order: assets, liabilities, stockholders' equity, revenues and expenses.
- Helps in the preparation of the financial statements.
- A typical trial balance may look something like this:

Account Types	Debit	Credit
Cash	100,000	
Accounts Receivable	50,000	
Accounts Payable		20,000
Long-term Debt		45,000
Common Stock		50,000
Retained earnings		35,000
Total	**150,000**	**150,000**

Apple Story
Trial Balance

Use the ending balances from each T-account to create a Trial Balance:





Accounts	Debit	Credit
Cash	36,800	
Equipment	200	
Prepaid Rent	3,500	
Long-term Debt		5,000
Unearned Sales Revenue		11,000
Share Capital		1,300
Dividends	4,000	
Sales Revenue		50,000
Development Expense	800	
Cost of Goods Sold	22,000	
Total	**67,300**	**67,300**

Trial Balance is simply a list of accounts with their ending balances.

As always,
DEBIT = CREDIT

Common Mistakes in Preparing Trial Balance

- A trial balance must balance, so what happens when it does not…. balance?

❶Make sure the trial balance columns are correctly added.

❷Make sure account balances are correctly entered from the ledger.

❸See if debit or credit accounts are mistakenly placed on the trial balance.

❹Re-compute each account balance in the ledger.

❺Verify that each journal entry is posted correctly.

❻Verify that each original journal entry has equal debits and credits.

- NOTE: A trial balance that balance doe not necessarily mean that it is free of errors.

Apple Story

Financial Statements (excluding Cash Flow Statement)

Apple
Income Statement
For the period ended July 31, 1976

Sales Revenue	$ 50,000
Expenses:	
Cost of Goods Sold	22,000
Development Expense	800
Net Profit	**$ 27,200**

Apple
Statement of Changes in Equity
For the period ended July 31, 1976

	Share Capital	Retained Earnings	Total Equity
Beginning Balance	$ -	$ -	$ -
Plus: Issuance of Shares	1,300		1,300
Net Profit		27,200	27,200
Less : Dividend		4,000	4,000
Ending Balance	$ 1,300	23,200	24,500

Apple
Statement of Financial Position
As at July 31, 1976

ASSETS		**LIABILITIES**	
Current Assets		Current Liabilities	
Cash	$ 36,800	Unearned Sales Revenue	$ 11,000
Prepaid Rent	3,500	Total Current Liabilities	11,000
Total Current Assets	40,300	Non Current Liabilities	
Non Current Assets		Long-term Debt	5,000
Equipment	200	Total Liabilities	16,000
Total Assets	**$ 40,500**		
		STOCKHOLDERS' EQUITY	
		Share Capital	1,300
		Retained Earnings	23,200
		Total Equity	24,500
		Total Liabilities & Equity	**$ 40,500**

Recall:
Relationships Among the 4 FS

STEP 1:

Income Statement

NET INCOME

NI is a component to determine ending RE

STEP 2:

Statement of Changes in Equity

Beg Equity + share capital changes
+ **Net Income –** Dividends
+ OCI = Ending Equity

***Ending RE** = Beg RE + Net Income - Dividends*

STEP 3:

Statement of Financial Position

Assets (**Cash**)
Liabilities
Shareholders' Equity (ending equity, including **RE**)

Statement of Cash Flow (SCF)

Reports changes in cash
→ **CASH (End balance)**

- ***Ending Cash is reported on Balance Statement of Financial Position's Assets.***
- ***SCF provides greater details on how cash changes***

Note: SCF will be covered in the later part of the course

Financial Statement Analysis

Concepts	Accounting Procedures	Financial Analysis
• What are "transactions"? • Accounts in the accounting system • Double-entry accounting: **DEBIT & CREDIT**	• Analyze Transactions • Journal entries • T-accounts • Trial balance	• What is FSA? • ROA • Debt Ratio

Financial Statement Analysis (FSA)

Decision Making Using Financial Ratios

Financial ratios are often used to aid in decision making.

General areas of financial statement analysis:

(1) **Liquidity and efficiency** – ability to meet short term obligations and efficiently generate revenues.

(2) **Solvency** – ability to meet long term obligations and generate future revenues.

(3) **Profitability** – ability to generate attractive and sufficient financial rewards for investors.

(4) **Cash Flow –** ability to manage cash inflow and outflow: "Cash is King"

(5) **Market prospects** – ability to generate positive market expectations.

*Note: I will be covering different financial ratios along the way as we cover different topics. All these ratios can be found in Chapter 15 (Analyzing Financial Statements).

Return on Assets (ROA)

$$\text{Return on assets} = \frac{\text{Net profit}}{\text{Average total assets}}$$

- *Profitability* ratio that measures how much return (net profit) a company earns from its asset.
- Also known as "Return on Investment"
- Useful for evaluating management, analyzing profits and forecasting
- Benchmark with competitors / prior years performance
- Higher ratio is preferred (i.e. higher return)

ROA
An example: ComfortDelGro 2021, 2020 & 2019

SFP

	Note	The Group 2021 $'mil	2020* $'mil
ASSETS			
Current assets			
Short-term deposits and bank balances	4	919.1	742.8
Trade and other receivables	5	536.9	533.4
Due from subsidiaries	6	–	–
Grant receivables	12	0.6	20.1
Inventories	7	116.9	127.9
		1,573.5	1,424.2
Assets classified as held for sale	43	8.3	–
Deferred tax assets	16	6.5	–
Total current assets		1,588.3	1,424.2
Non-current assets			
Subsidiaries	8	–	–
Associates	9	0.8	0.7
Investments	10	27.7	22.5
Trade and other receivables	5	10.7	6.7
Due from subsidiaries	6	–	–
Vehicles, premises and equipment	13	2,430.5	2,604.1
Intangible assets	14	220.0	210.6
Goodwill	15	646.9	659.4
Deferred tax assets	16	30.1	30.4
Total non-current assets		3,366.7	3,534.4
Total assets		4,955.0	4,958.6

IS

	Note	2021 $'mil	2020* $'mil
Revenue	27	3,538.3	3,242.6
Staff costs	28	(1,711.9)	(1,550.1)
Depreciation and amortisation		(401.6)	(432.0)
Repairs and maintenance costs		(312.1)	(301.0)
Fuel and electricity costs		(264.2)	(182.0)
Contract services		(141.2)	(126.0)
Materials and consumables costs		(95.5)	(94.2)
Road tax and licence fees		(84.7)	(81.0)
Insurance premiums and accident claims		(81.1)	(85.7)
Premises costs		(80.2)	(77.6)
Utilities and communication costs		(17.3)	(18.9)
Advertising production and promotion costs		(16.9)	(12.7)
Net loss on disposal of vehicles, premises and equipment		(14.7)	(11.2)
Provision for impairment on vehicles and goodwill		(9.0)	(48.3)
Other operating costs		(97.9)	(100.2)
Total Operating Costs		(3,328.3)	(3,120.9)
Operating Profit		210.0	121.7
Net Income from Investments		6.2	8.8
Finance Costs	29	(11.3)	(14.7)
Profit before Taxation		204.9	115.8
Taxation	30	(44.9)	(24.1)
Profit after Taxation	31	160.0	91.7

(in $mil)	**2021**	**2020**	**2019**
ROA	**0.0323**	**0.0177**	**0.0605**
Net Profit	160	92	318
Current Yr Total Assets	4,955	4,959	5,379
Prior Yr Total Assets	4,959	5,379	5,137
Average Total Assets	4,957	5,169	5,258

What pattern do you observe in its ROA the past three years? Why do you think that is so?

COMFORTDELGRO

ROA
ComfortDelGro vs Uber

- Financial ratios are also useful for comparison with competitors

Let's compare ComfortDelGro with a competitor Uber *(Uber's 2021 Annual Report is available for download from Canvas) :*

	ComfortDelGro		**Uber**	
	2021	***2020***	***2021***	***2020***
Net Profit	160	92	(-8,506)	(-6,768)
Average Total Assets	4,957	5,169	36,013	32,507
ROA	**0.0323**	**0.0177**	**-0.2362**	**-0.2082**

- Comfort's ROA is positive, about 1.7% in 2020 and 3.2% in 2021.
- Uber is in the red (which means it is unprofitable). In 2021, it reported a loss of US$8.5 billion, and in 2021 it had a US$6.7 billion loss. And so, it has **negative** ROA. (In 2019, it reported loss of $8 billion.)

Assessing Solvency
Debt Ratio

Debt Ratio

$$\text{Debt Ratio} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

- *Solvency* ratio that measures much total liabilities a company has relative to its total assets.
- Useful for evaluating the level of debt risk
- Company finance its assets either through liabilities or equity so a company that uses a lot of liabilities to finance its assets is said to have high **financial leverage** (highly leveraged)
- Higher ratio indicates higher leverage → higher risk

Debt Ratio
An example: ComfortDelGro

SFP

	Note	The Group 2021 $'mil	The Group 2020* $'mil
ASSETS			
Current assets			
Short-term deposits and bank balances	4	919.1	742.8
Trade and other receivables	5	536.9	533.4
Due from subsidiaries	6	–	–
Grant receivables	12	0.6	20.1
Inventories	7	116.9	127.9
		1,573.5	1,424.2
Assets classified as held for sale	43	8.3	–
Deferred tax assets	16	6.5	–
Total current assets		1,588.3	1,424.2
Non-current assets			
Subsidiaries	8	–	–
Associates	9	0.8	0.7
Investments	10	27.7	22.5
Trade and other receivables	5	10.7	6.7
Due from subsidiaries	6	–	–
Vehicles, premises and equipment	13	2,430.5	2,604.1
Intangible assets	14	220.0	210.6
Goodwill	15	646.9	659.4
Deferred tax assets	16	30.1	30.4
Total non-current assets		3,366.7	3,534.4
Total assets		4,955.0	4,958.6

	Note	The Group 2021 $'mil	The Group 2020* $'mil
LIABILITIES AND EQUITY			
Current liabilities			
Borrowings	17	23.9	110.3
Lease liabilities from financial institutions	18	28.0	30.7
Lease liabilities	19	33.3	32.6
Trade and other payables	20	775.6	675.0
Due to subsidiaries	20	–	–
Deferred grants	21	0.6	30.5
Fuel price equalisation account		20.0	20.0
Provision for accident claims	22	44.3	48.7
Income tax payable		64.4	64.7
Total current liabilities		990.1	1,012.5
Non-current liabilities			
Borrowings	17	317.1	353.4
Lease liabilities from financial institutions	18	30.3	57.9
Lease liabilities	19	185.4	156.3
Deferred grants	21	4.8	5.8
Other liabilities	23	76.8	73.3
Fuel price equalisation account		20.0	20.0
Deferred tax liabilities	16	194.2	210.7
Total non-current liabilities		828.6	877.4
Total liabilities		1,818.7	1,889.9

	2021	2020	2019
Debt Ratio (TL/TA)	**0.3670**	**0.3811**	**0.4406**
Total Liabilities	1,819	1,890	2,370
Total Assets	4,955	4,959	5,379

Debt Ratio
ComfortDelGro vs Uber

- Financial ratios are also useful for comparison with competitors

Let's compare ComfortDelGro with its competitor Uber:

	ComfortDelGro			Uber		
	2021	***2020***	***2019***	***2021***	***2020***	***2019***
Debt Ratio	**0.3670**	**0.3811**	**0.4406**	**0.6041**	**0.5864**	**0.5220**
Total Liabilities	1,819	1,890	2,370	23,425	19,498	16,578
Total Assets	4,955	4,959	5,379	38,774	33,252	31,761

- Uber's debt ratio is much higher than ComfortDelGro.
- Uber is more highly leveraged than ComfortDelGro, indicating a higher level of debt risk.
- **Uber's debt ratio is constantly going up from 2019 to 2021. What do you think contributed to the ratio's increase year on year?**

Take Aways for Lecture 02

- Understanding the double-entry system
  - DEBIT / CREDIT
- How to analyze and record transactions
  - Journal entries (General Journal)
  - T-accounts (General Ledger)
  - Preparing trial balance
- Financial Analysis
  - Return on Assets (ROA)
  - Debt Ratio

What to expect for next 2 lectures? (Chapter 4)

PART 1 (Lecture 03): Adjusting Accounts

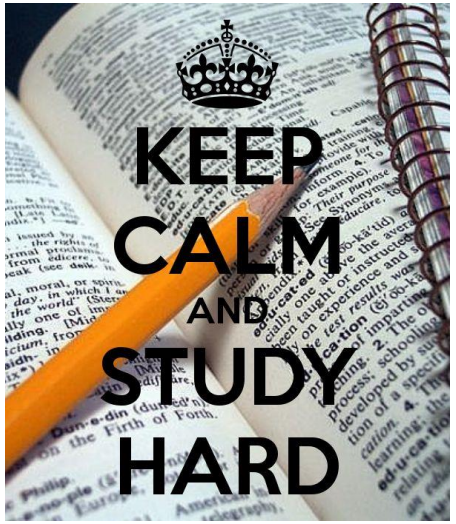
- Accrual vs. Cash Basis Accounting
- Adjustments : purpose and mechanics
  - Prepaid Expenses & Accrued Expenses
  - Unearned Revenues & Accrued Revenues

PART 2 (Lecture 04): FS Prep & Closing the Books

- Adjusted Trial Balance
- Preparing Financial Statements
- Closing the Books
- FSA: Net Profit Margin

That's all folks!

Another lecture with lots of materials covered!



Don't forget to review the materials after the lecture,

it will help you to understand the concepts better.

Post any questions/discussion in the Canvas Discussion Forum for Lecture 02.

Email me at hannykusnadi@nus.edu.sg if you would like to schedule a meeting with me.

See you next week!