



Double-entry bookkeeping

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What is double-entry bookkeeping?

Double-entry bookkeeping is a system of keeping financial records, based on the observation that every financial transaction affects at least two accounts.

For example, if you buy £100 worth of stock for cash you:

- increase the value of stock by £100, but
- decrease your cash by £100.

If an asset is increased in value, this is called a **debit**. If it decreases in value, this is called a **credit**. So in the example above, the double entry is to debit stock by £100, and to credit cash by £100. The fact that every transaction is recorded twice acts as a check to ensure that every transaction is recorded properly.

The terms debit and credit are sometimes abbreviated to Dr and Cr. This dates from the first use of double-entry bookkeeping by traders in Genoa in 1304. They recorded transactions in two columns headed *dare* (to give) and *avere* (to receive). Double-entry bookkeeping was taken up by Venetian traders in 15th century, and slowly became adopted worldwide. It became standard in Britain in 1830, though there is still no law that requires anyone or any business to use double-entry bookkeeping.

Traditionally, the debit entry is recorded indented to the left. A line of narrative appears under the entries, traditionally starting with the word "To". All journal entries are dated.

So a traditional journal would record this transaction as:

1 March 2018		
	<i>Dr</i>	<i>Cr</i>
Stock	100.00	
Cash		100.00
<i>To purchase of £100 worth of stock.</i>		

These terms often confuse people new to bookkeeping, as we associate the word "credit" with an *increase*. If we say that £50 has been credited to our bank account, we mean that our account has increased by £50. And that is how it will be shown on our bank statement.

This is because bank statements reflect the account from the *bank's* perspective.

If we consider the purchase of stock from the *seller's* perspective, he has *decreased* his stock by £100 but increased his cash by £100. So the seller with debit cash by £100 and credit stock by £100. Similarly what is a credit in the bank's records is a debit in your records.

If you pay £50 into your bank account, you are *debiting* your bank and crediting cash. That is the convention under double-entry bookkeeping.

The important rule in double-entry bookkeeping is to remember that an increase in an asset is always a debit. If the bookkeeper struggles to identify the relevant debits and credits, working back to the simple question of what assets have increased can often provide the answer.

For the purposes of bookkeeping, a transaction is not necessarily something that involves money changing hands, nor even involving a third party. A transaction can include adjusting values, such as writing off debts or depreciating fixed assets.

Examples of trading transactions

The above example assumes that we buy stock with cash. Suppose our supplier is prepared to allow us 30 days in which to pay their bill. We now have two transactions: buying the stock and paying the supplier.

A traditional journal would record this as:

1 March 2018		
	<i>Dr</i>	<i>Cr</i>
Stock	100.00	
Creditors		100.00
<i>To purchase of £100 worth of stock</i>		

31 March 2018		
	<i>Dr</i>	<i>Cr</i>
Creditors	100.00	
Cash		100.00
<i>To paying stock supplier.</i>		

We have created a new account called "creditors". On 1 March 2018 this has a credit balance of £100. On 31 March 2018, the same account is debited with £100. This means that this account returns to zero. Mathematically, we may regard debits as + numbers and credits as – numbers. A debit and a credit of the same amount will cancel each other out.

it is possible for a double-entry to have **more than one element** as a debit or credit. Suppose in addition to buying £100 worth of stock intended for resale, the same supplier provides some shelving for £40. The first entry in a journal would record this as:

1 March 2018		
	<i>Dr</i>	<i>Cr</i>
Stock	100.00	
Plant	40.00	
Creditors		140.00
<i>To purchase of stock and shelving.</i>		

The important point to understand about double entries is that the total of debits must always equal the total of credits.

If we **sell at a profit**, there will also be a multiple double-entry.

Suppose we sell £100 of stock to a customer for £150 cash and make a profit of £50. The double-entry would be:

1 March 2018		
	<i>Dr</i>	<i>Cr</i>
Cash	150.00	
Stock		100.00
Profit		50.00
<i>To sale of £100 of stock for £150.</i>		

This means that we have £150 more cash, £100 less stock and have made £50 profit.

Now suppose that we **charge VAT** on our sales. The double-entries are:

1 March 2018		
	<i>Dr</i>	<i>Cr</i>
Cash	180.00	
Stock		100.00
Profit		50.00
VAT		30.00
<i>To sale of £100 of stock for £150 plus VAT</i>		

We now have three credits, but they still total the same as the debits, £180 in this example. The £30 VAT is a creditor. It represents money that we owe to HMRC.

Suppose our purchases of stock and shelving had been subject to VAT at 20%. The journal entry would be:

1 March 2018		
	<i>Dr</i>	<i>Cr</i>
Stock	100.00	
Plant	40.00	
VAT	28.00	
Creditor		168.00
<i>To purchase of stock and shelving</i>		

We owe the creditor £168, as that is the total of his invoice to us.

If we consider the VAT account. This will have recorded a credit of £30 sales and a £28 debit on our purchases. These largely cancel out, leaving a credit balance of £2. The £30 is output tax; the £28 is input tax; the balance of £2 is what we owe to HMRC.

For **payroll**, there may be more than one entry on each side. Suppose we pay an employee £100, but must also pay HMRC £13.80 as employer's national insurance. The employee pays £20 income tax and £12 as national insurance. The journal entry would be:

1 March 2018		
	<i>Dr</i>	<i>Cr</i>
Wages	100.00	
Employer's national insurance	13.80	
Employees		68.00
Income tax		20.00
National insurance		25.80
<i>To payment of wages</i>		

The £100 and £13.80 are both expenses of the business that must be borne by the employer. The employee actually receives £68. This figure is a creditor until the wages are actually paid when there will be a further journal entry (Dr: employees. Cr: cash). The £20 income tax and £25.80 national insurance (£12 from employee and £13.80 from employer) are both payable to HMRC, but are recorded separately.

Note that the total of debits and credits still add up to the same figure: £113.80.

Accounts

Every posting in a double-entry is to an **account**.

Even a simple business may find that its records can require hundreds of accounts to be comprehensive.

At the minimum, most businesses will need accounts for:

- each bank account
- petty cash
- stock
- sales
- purchases
- trade debtors
- other debtors
- trade creditors
- other creditors
- VAT (if registered)
- wages
- income tax and national insurance from payroll
- income tax or corporation tax payable by the business on its profits
- profit (or loss)
- each category of expenses (eg electricity, insurance, rates)
- each category of fixed assets (eg property, vehicles, furniture, computers)
- loan accounts
- depreciation
- deferred tax.

A limited company may also have accounts for share capital, share premium, dividends payable and retained profit. A sole trader may also have accounts for capital and retained profits. A partnership will have capital and loan accounts for each partner, in addition to retained profit.

There will usually be many other accounts, appropriate to the business.

Traditionally, the accounts were listed in a **nominal ledger**. Each journal entry has its various elements entered for the appropriate accounts. Debits are recorded as positive figures; credits as negative. When accounts were written by hand, credit figures were either written in red ink or with brackets round the numbers as in (103.25).

At least once a year, and sometimes also every quarter or every month, these accounts are totalled. As every single journal entry comprises debits and an equal total of credits, the totals of all the accounts should equal zero.

In practice, each account was listed with its balance (or total) as either a debit or credit. This is known as a **trial balance**. The total of all debits should equal the total of all credits. If it did not, a mistake had been made somewhere.

Assets and liabilities

Some of the accounts will refer to assets and liabilities.

An **asset** is:

- money (eg cash in petty cash, money in the bank)
- something that will become money (eg debtors, prepayments)
- something that is worth money (stock, furniture, premises).

A **liability** is the opposite. As you cannot have negative money or negative property, the only real liability is creditors — people to whom you owe money.

Debit and credit balances

Each account in the nominal ledger records a debit or credit balance. This comes from adding up all the debits and credits posted to that account.

What each balance represents depends on the nature of the account.

A **debit balance** represents one of:

- an asset
- an increase in an asset's value
- an expense
- the reduction of a liability
- purchases
- a trading loss.

A **credit balance** conversely represents one of:

- a liability
- a decrease in an asset's value
- non-trading income (or a refund of an expense)
- the increase of a liability
- sales
- a trading profit.

Prime books of account

It is possible to keep financial records under double-entry bookkeeping using just a journal and nominal ledger. If there are only a few transactions in a year, this may be satisfactory.

For most business, recording each sale, purchase and other transaction in a journal would be repetitious and tedious. In practice, similar transactions are grouped and recorded in **prime books of account**. Each such book acts in a similar way to a journal in that it produces a debit or debits, and a credit or credits, and the debits always equal the amount of credits. Those debits and credits are then posted to the nominal ledger.

For example all sales may be recorded in a **sales day book**. This usually lists all the invoices issued each day. From this a daily (or other periodic) total of sales (and probably VAT) is

produced. This will be entered straight into the nominal ledger as debit: trade debtors and credit: sales (or sales, and VAT).

Similarly there will be a **purchase day book** listing all invoices received. This will usually analyse the invoices across broad headings of expenditure, such as plant, stock, stationery, electricity, insurance etc. There is always a “sundry” account for unusual, small or occasional items. The periodic totals will be entered straight into the nominal ledger. Each category of expenditure is entered as a separate debit, and the total is entered as a credit to trade creditors (or trade creditors and VAT).

Each **bank account** has its own day book. In reality, each bank day book is really two prime books of account: one for receipts and one for payments. The receipts side may have the double-entry, debit: cash; credit: debtors. The payments side may have the double-entry, debit: creditors, credit: cash.

The **petty cash book** is another day book, though usually only the payments side is part of the double-entry. The receipts side typically contains cash payments made from a bank account, and so the double-entry is picked up from the bank account day book. Every transaction should be recorded once and only once. If money is paid into petty cash from another source, such as a customer settling a bill or unidentified cash on the premises, this may be recorded in the journal.

Payroll is another day book. Its double-entries have already been explained.

Businesses still need a **journal** in addition to day books, as the journal records all other transactions.

Examples of transactions normally recorded in the journal include:

- opening a set of accounts, recording the initial capital
- depreciation
- accruals and prepayments
- closing stock
- reversing certain journal entries of the previous accounting period
- barter transactions
- bad debts
- all transactions involving provisions and reserves
- unusual transactions (such as a customer gives a vehicle to settle a debt).

Stock

On each commercial sale, it is possible to record the value of the stock sold and the profit on that transaction.

In practice, this is rarely done. The sales are recorded simply as debit: trade debtors, credit: sales. The value of stock sold is determined by an annual stock-take whose result is recorded in the journal as closing stock. The double-entry is debit: stock, credit: purchases (of stock). A single figure is entered in the journal.

The accounting records are always in addition to the stock records that a business should keep for its own management. Such stock records are outside the scope of double-entry bookkeeping.

The cost of sales is therefore:

opening stock (value of stock on the first day of the accounting period)
 PLUS purchase of stock
 MINUS closing stock (value of stock on last day of accounting period).

This is the value of stock that has been sold, or “cost of sales”. If this figure is subtracted from “sales”, the answer is the gross profit.

Accruals and prepayment

Accounts are always prepared for a defined accounting period. This is often a year, but can be for any period desired. Accounts are often prepared for half-years, quarters, months or irregular periods.

Certain bills will relate to continuous periods that do not tie in with the accounting period. For example, a business may on 23 December pay £10,000 rent for six months from 1 January to 30 June. If it prepares accounts for the year to 31 March, half of that rent will relate to the next period.

Conversely, on 1 June, the telephone company may invoice the business £600 for telephone calls between 1 March and 31 May. In this case one third of that bill will relate to the previous period.

As income and expenditure are expected to match for an accounting period, such payments require an adjustment. If the bill has already been paid in the accounting period, the adjustment is known as a **prepayment**. The amount must be calculated on a pro rata time basis. In our example, the journal entry is:

31 March 2018:		
	<i>Dr</i>	<i>Cr</i>
Prepayments	5000.00	
Rent		5000.00
<i>To adjustment in respect of prepayment of half the rent paid on 23 December 2013</i>		

If the bill is paid in the next accounting period, the adjustment is known as an accrual. In our example above, the journal entry is:

31 March 2018		
	<i>Dr</i>	<i>Cr</i>
Telephone	200.00	
Accruals		200.00
<i>To accrual of one third of telephone bill received on 1 June 2018</i>		

The prepayments account will always have a debit balance. The accruals account will always have a credit balance.

Whatever journal entries are made for prepayments and accruals must be reversed at the start of the next accounting period. For most of the year, the balances on these accounts are zero.

Depreciation

Assets are distinguished between fixed assets and current assets.

In bookkeeping, a fixed asset is usually:

- an item with an expected life of more than one year, and
- which exceeds a capitalisation threshold.

(Note that this differs from the tax provisions relating to plant, where the expected life must be at least two years and where there is no capitalisation threshold.)

Examples of fixed assets include buildings, vehicles, furniture, computers, racking, machinery, tills, tools. These are all *expected* to last more than one year. The **capitalisation threshold** is a low amount, perhaps £100, below which items are not subject to depreciation. This stops the fixed assets register being clogged up with staplers, waste bins, soap dishes, coffee mugs and other low value items that last for more than a year.

All fixed assets are depreciated over their estimated useful life, with the exception of land which is not depreciated.

There are different ways of calculating depreciation. As a simple example, we assume that a lathe costing £10,000 is written off in equal instalments over ten years. The acquisition of the lathe will have been recorded in the accounts, probably from the purchases day book, at the amount paid.

In each of these ten years, a journal entry is made:

	<i>Dr</i>	<i>Cr</i>
Depreciation	1000.00	

Fixed asset		1000.00
<i>To one year's depreciation on lathe</i>		

Each year, there is the expense of depreciation of £1,000. The value of the lathe reduces by £1,000 each year until it reaches zero in the tenth year.

Note that depreciation is the cost of using a fixed asset. It is not a provision to set aside funds to replace the asset. You have no idea of how much a replacement lathe will cost in ten years' time, or even if you will replace it.

Bad debts

A bad debt is a sum owed by a debtor which you no longer expect to receive. This is written off in the accounts by turning the debtor into an expense.

For example, if a customer goes bankrupt owing you £100, the journal entry is:

	<i>Dr</i>	<i>Cr</i>
Bad debt	100.00	
Debtors		100.00
<i>To writing off a bad debt.</i>		

In most organisations, a bad debt needs to be authorised at a senior level.

If the bad debt is subsequently paid, the above journal is reversed.

Note that something is only a bad debt when it is written off. If you think that it *may* not be paid, the debt is a *doubtful debt* for which you make a provision.

Provisions and reserves

Making a provision or a reserve is not really an accounting transaction. All you are doing is setting aside some cash for a specific purpose.

The journal entry is:

	<i>Dr</i>	<i>Cr</i>
Provision [or reserve]	1000.00	
Cash		1000.00

Producing the accounts

Double-entry bookkeeping simply keeps records. It does not produce accounts, nor does it tell you how much profit or loss has been made.

The financial accounts are prepared from the nominal ledger, after all the year-end accruals, depreciation, closing stock, provisions and other adjustments have been made.

Broadly the process is to:

- produce a trial balance listing all the debits and credits
- allocate the figures to the financial statements.

Here is a simple example:

	<i>Dr</i>	<i>Cr</i>
Accruals		500
Cash	2,000	
Creditors		3,000
Debtors	4,000	
Cost of sales	15,000	
Depreciation	1,000	
Other overheads	3,200	
Plant	9,000	
Prepayments	600	
Rent and rates	2,500	
Sales		38,700
Share capital		100
Stock	2,000	
Wages	<u>3,000</u>	
	<u>42,300</u>	<u>42,300</u>

Note that the total of the debits and the credits come to the same figure. This figure has no meaning other than as a check on the bookkeeping.

The two main **financial statements** are:

- the profit and loss account
- the balance sheet.

The **profit and loss account** relates to a *period* of time, such as a year. It shows what sales, expenses and profit (or loss) arose in that period.

The **balance sheet** relates to a *moment* in time, usually the end of the accounting period. It shows the value of the business at that moment. It is like a snapshot of the business.

The figures from the trial balance above can be slotted into the respective places of the financial statements.

Profit and loss account for The Business for the year ended 31 March 2018

Sales		38,700
Cost of sales		<u>15,000</u>
Gross profit		23,700
Depreciation	1,000	
Other overheads	3,200	
Rent and rates	2,500	
Wages	3,000	
Total expenses		<u>9,700</u>
Net profit		<u>14,000</u>

Balance sheet for The Business as at 31 March 2018

Fixed assets: plant		10,000
less depreciation		<u>1,000</u>
Plant at net book value		9,000
Current assets		
Cash	2,000	
Prepayments	600	
Debtors	4,000	
Stock	<u>2,000</u>	
Current assets	<u>8,600</u>	
Current liabilities		
Accruals	500	
Creditors	<u>3,000</u>	
Current liabilities	<u>3,500</u>	
Working capital		<u>5,100</u>
Net assets		<u>14,100</u>
<i>Represented by</i>		
Share capital		100
Profit for year		<u>14,000</u>
Net assets		<u>14,100</u>

It is only at this stage that we discover how much profit the business has made, and how much the business is worth:

- net profit: £14,000
- value of business: £14,100.

This is obviously a contrived simple example, through it illustrates the bookkeeping.

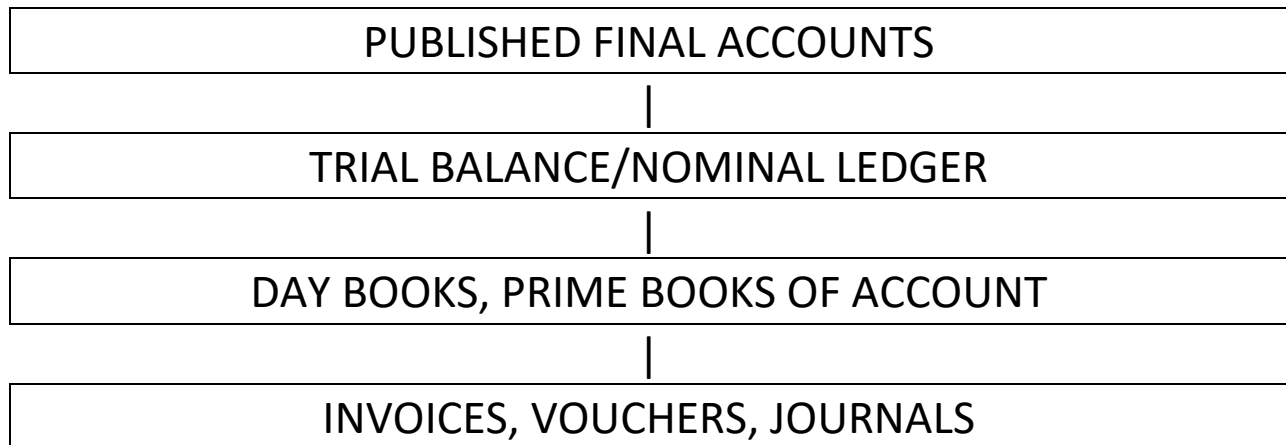
The balance sheet is usually signed by a director or other responsible person after the accounts have been formally adopted by the board or other responsible body. For the period between their preparation and adoption, the accounts are known as **draft accounts**.

Audit trail

The audit trail is the means by which it is possible to trace transactions from original documents to the final accounts and back again.

The audit trail is achieved by recording a folio or reference number for each transaction, and using that folio on consecutive stages of the accounts. The folio may take whatever convention is convenient for the business. For some items, the date may be sufficient as a folio reference. For sales and purchases, the invoice number will usually suffice.

The audit trail must allow transactions to be traced through four levels:



The lowest level comprises the documents that evidence the transactions. These include invoices (both issued and received), petty cash vouchers, expense claims, other documents to support payments (such as tax returns and insurance forms), journal entries etc.

Invoices, in particular, should be numbered consecutively. This is a legal requirement for VAT purposes.

The next level up is the day book or other prime book of account where these transactions are consolidated into daily or other periodic figures. The invoices, cheque numbers, voucher numbers or other folio are entered in the book.

The day book totals are then entered into the nominal ledger, from which the trial balance is produced, from which the final accounts are produced.

An auditor can start with invoice 4671 for £31 and see that this has been included in the daily total of £483 for 27 September 2013. This has been included in the nominal ledger figure of £3,100 for September 2013, which is included in the £38,700 figure for sales.

Conversely, the auditor could start with the £38,700 and see how this was arrived in the nominal ledger, and then from the day book, finally looking at the invoices.

It cannot be over-stressed that it must be possible for an accountant or auditor to look at the financial records and understand them and be able to trace transactions from invoices to final accounts and back again. If the bookkeeper has to “explain” anything, he or she has not kept proper records. The records should be the explanation.

Computer records

The examples used show how double-entry bookkeeping is operated in manual records. Until the 1970s, most businesses kept records manually, writing up records by hand in bound cash books.

From the 1980s, the task was simplified by the use of computers. Invoices, vouchers and journal entries were entered once, and the computer produced all the other levels of accounting. This includes automatically generating the audit trail.

The computers simply automate the procedures. The principles are unchanged. Records must still be kept at the four levels. Sufficient print-outs should be taken to allow an accountant or auditor to trace transactions without having to switch on the computer.

Other financial statements

While the balance sheet, and profit and loss account remain the two most important financial statements, they are not the only ones.

The **statement of total recognised gains and losses** (STRGL) was introduced in 1992. It is in effect a sub-set of the profit and loss account, to which the STRGL must be given equal prominence. It notes such matters as gains from revaluing property, and exchange gains and losses on foreign currency accounts. The separate statement allows the profit from trading to be separated from other gains.

The **cashflow statement** shows what funds have been received and spent by the business during the accounting period. It is not part of double-entry bookkeeping. It does have the advantage of being fact and not opinion. It does not need to consider such subjective considerations as the value of property and the expected life of fixed assets.

The **auditor's report** is a statement by an independent accountant. Auditing is an entirely passive activity. The word "audit" comes from the Latin meaning "he hears". The scope of an audit report must always be stated. The common statutory report of a company simply confirms that the accounts:

- are true and fair, and
- comply with the Companies Act.

The audit report does not confirm that the accounts are correct, free from error or fraud, nor that the business is being managed properly or honestly.

Other financial records

Double-entry bookkeeping is the main "bean-counting" of financial accounting, but there are other tasks.

Bank reconciliation ensures that the bank accounts are properly maintained. The figure shown on the bank statement is reconciled to the figure recorded in the business's own records. Note that the bank statement is reconciled to the accounts, and not the other way round. The bank statement will be adjusted for payments issued but not yet cleared and payments received but not showing on the statement. Bank charges and similar should be reflected in the accounts before starting the bank reconciliation.

Ledgers (other than the nominal ledger) are outside the scope of double-entry bookkeeping. They are said to be **memorandum accounts**. Double-entry bookkeeping will tell you the total of how much your customers owe you, but do not tell you who owes you what. This is recorded in the sales ledger. Similarly, the purchase ledger (or bought ledger) records what you owe your various creditors.