Book-keeping

Teacher Note

The Session starts out with a simple book-keeping exercise to introduce the importance of keeping records.

It introduces a Case Study, a Chicken Farm. Something that sounds reasonably appropriate and topical.

The figures have purposely been kept really simple – perhaps rather unrealistic. That's OK because the book-keeping principles are more important than lots of figures and complicated arithmetic.

You'll have heard that you're going to do Advanced Business Skill training.

What that means is that you're going to see how successful businesses keep track of their money, how they do what's called **Book-keeping** - or **Accounting**.

And then we're going to do what medical doctors call a Diagnostic: using our book-keeping to check out the health of a business. We're going to become Business Doctors!

The good thing is that the Book-keeping and the Diagnosis are designed to fit together really well – and we're going to make it so you can follow every step along the way.

Are we ready ...

What we're going to do is start off by being book-keepers for an imaginary chicken farm. I'm going to give you some figures to start you off with and then we'll work through some more figures. So before you know it you'll be accountants and business managers.

Don't worry. It won't be hard, but it's going to be lots of fun.

So like I said, our business is a chicken farm. It's imaginary – and the figures will sometimes look a bit silly, but I've done it this way to show you how everything fits together, how it works, without getting too complicated.

Workbook page: Book-keeping

So let's start.

First off, it's your lucky day. You all have \$500.

The Workbook already shows that \$500 at the top of the table.

? \$500

Now I don't know the real price of chickens here in Cambodia, but I told you I was going to be silly, so your chickens are going to cost \$3 each. Maybe they're going to lay eggs made of pure gold!

So what does 50 chickens at \$3 each come to?

? \$150

You're right. \$150. Write that down beside *Buy Chickens* under your \$500.

? \$150

So what should we look at next...?

I said I was going to make it easy for you. At least at the beginning, so let me say *chickenfeed*. We'll buy a year's worth, so that's going to cost \$100.

Write that down alongside *Buy Chickenfeed* under the \$150 for the chickens.

? \$100

How much is left of our \$500?

? \$250

Half our money is gone already!

Is there anything else?

Yes. For a whole year, we'll have to pay \$50 rent.

Write it down next to Pay Rent.

? \$50

What's left now?

? \$200

Anything else?

A fence. We've paid big money for our chickens so we don't want them to run away.

Another \$50 where it says Buy Fencing.

? \$50

What are we down to now?

? \$150

Surely we're finished.

Anything else?

I can think of something: you Cambodian people are much too unselfish...

What are you going to live on? You need to pay yourself something.

So there's another \$100 we can write in as My Pay.

? \$100

Same as you paid for chickenfeed. I told you I was going to be a bit silly, but it would be useful to see the story unfold with these simple numbers. It's the story that's important, not the numbers.

So how do we look now?

What's left of our money?

Do we agree that we're now down to \$50?

? \$50

It's a bit sad to see all our money disappear so quickly. But has it?

Costs and Expenses

Teacher Note

Now we take our first step towards the kind of accounting that will help diagnose a business

I use the word Diagnose because that's a word that doctors use when they're checking our health, so it's also useful to use for a business. And people will probably understand what Diagnose means.

This first step sets up the idea of what accountants call a Profit & Loss Statement – but I think it's easier to understand if I simply call it a Profits list. It introduces the idea of Variable and Fixed costs and why they're useful for our Diagnostic.

Let's look at a couple of things:

What's the difference between chickenfeed and rent?

?

What would happen to your chickenfeed costs if you had half the number of chickens?

Of course. Your chickenfeed cost would go down by half.

But what about the rent if you lost half the chickens?

?

Nothing would happen at all. Your rent doesn't depend on the number of chickens.

So you could call the rent a Fixed Cost and the chickenfeed a Variable Cost.

Let's look at another thing:

What's the difference between chickenfeed and fencing?

?

You're right. At the end of the year the chickenfeed is all gone but you've still got your fencing. The money you paid for the chickenfeed is all gone, but the fences are still worth what you paid.

Same with the chickens themselves (depending on how healthy they are!)

So the chickenfeed and the rent – and your pay are what we can call Expenses because when they're gone, they're gone.

On the other hand, you still have the chickens and the fencing at the end of the year. It's almost as though you still have the money – it just looks a bit different!

So let's now make another list.

Workbook page: Profit List (1)

This time we'll start with the costs that vary directly with the number of chickens. What we've decided to call the Variable Cost.

Under where it says *Variable* Costs, you'll see **chickenfeed** –alongside that, write \$100.

? \$100

Great.

Under that, you'll see Fixed Costs.

And under that, let's put \$50 for Rent

? \$50

... and under that, My Pay \$100.

? \$100

What does all that add up to?

? \$250

That's terrific. We're starting to get a picture of the cost of running a chicken business.

Sales

Teacher Note

As well as Costs, the Profit list also needs to show Income. Sales.

This part shows how to work out a figure for Sales by looking at various product lines – in this case, Eggs and Chickens.

The idea is to look at what's reasonable for production and what's reasonable for prices.

So is there anything missing?

Workbook page: Profit list (2)

Back up here at the top... Sales. We don't have a business if we don't have Sales.

If we have a chicken farm, what can we sell?

- · Did anybody say eggs?
- · Did anybody say chickens?

Let's think of some numbers. What if we say we can sell 10 eggs for \$1? How many eggs might we get from our chickens? One every day from every chicken? That's 365 a year. I don't think we want to work our poor chickens quite that hard.

To pick a nice easy number, why don't we say 100 a year for each chicken? 50 chickens, 100 eggs each. What does that come to?

? 5,000 eggs.

At one dollar for every 10 eggs what does that come to?

? \$500.

Wow. We're making money!

But remember also that we paid \$3 for each of our chickens. That should make any chicken worth \$3, so what if we decide to hatch some of those eggs and then sell the chickens...

So instead of selling 5,000 eggs for \$500, we might hold back and hatch 100 eggs and sell 4900 eggs for \$490 and 100 chickens at \$3 each.

Or even better, we might sell 50 chickens for \$3, coming to \$150, and keep the other 50 to add to our flock (also worth \$150). We won't get any money from them straight away, but they'll soon be laying eggs of their own and we'll have more to sell next year.

So back up to here at the top.

Where you left the blank lines under Sales we can now write:

- eggs \$490
- chickens \$150.

We can write in our Total Sales.

? \$640.

Even more exciting!

Profit

Teacher Note

With the sales and Cost figures in place, we can now look at Profit – and the various kinds of Profit.

Separating out Gross Profit and Net Profit means we have something we can use with our business Diagnostic tools.

Workbook page: Profit list (3)

This is where you start becoming real business managers. This is where the arithmetic begins.

The first thing to do is to take away the *Variable* cost from our Sales, the cost of actually keeping the chickens alive, the \$100 for the chickenfeed.

So what's left after we've taken away the costs related directly to the chickens?

? \$540

That's a very rough and incomplete version of the Profit we're making. For accountants it has a name that you might as well know: to accountants, 'rough and incomplete' means Gross. So it is known as **Gross Profit**.

If you want to know how well the actual chicken part of the business is going, you look at Gross Profit. If you want to increase your Gross Profit, you need to find a way of increasing your Sales or reducing your Variable Costs.

The next thing is the **Fixed** costs. Somehow we have to include them to get a more realistic picture of the business. So the next step is to subtract the cost of Rent and our Pay.

? \$50 plus \$100 = \$150.

This is a clearer view of the business's operations and it's called **Operating**Profit.

Does anybody have a figure for Operating Profit?

Gross Profit - Operating Expenses.

? \$390.

Fantastic.

There's a little more to go before we get to our final Profit, but there's something else to talk about first.

Assets

Teacher Note

The material so far leads logically to the accountants' next list: the Balance Sheet – although for simplicity's sake, I call it the Assets List.

A business is worth more than just Sales and Costs. It also has things of value that aren't sold but help the business make its money.

In our Case Study, I've used two examples of Assets: the chickens and some fences. Along with the Cash that was left over right at the beginning.

Remember how our first list had things like fencing – and the original chickens.

You'll notice that neither of these appears in what we've just done. That's because they are not Expenses but what we call *Assets*.

Assets are things that we own – and we'll still own them in a few years because they don't get used up. We keep a record of Assets in a different place because it works better that way if we want to look at what the business is worth.

The list we've been building so far shows the Profit we're making after all the bills have been paid – which is why it's called the Profit statement. (It's really called the Profit and Loss statement by the realists, but let's us be positive and just call it the Profit statement!)

Getting back to our list of Assets... The things we own.

In fact it's a bit more than that, because it's also a list of the things we owe, things called *Liabilities*. Eventually it will show not only our chickens and our fencing, but if we decide to borrow money to buy more things and expand the business, the loan will show up as a Liability, the opposite of an Asset. The things we own are called *Assets*; the things we owe a called *Liabilities*.

So let's make a new list.

Workbook page: Asset list (1)

This list has a line down the middle. Over on the left side we'll make a list of *Assets*. Over on the right side we'll list our *Liabilities*.

At this stage, we've only got Assets, but let's make a list anyway.

What have we got?

- Fencing... worth \$50.
- Chickens... Worth \$150.

So now it looks as though we have assets of...

? \$200...

But I still feel as though something is missing...

I know... what happened to the \$50 of cash that was left over right at the beginning? We've still got that, and Cash looks like an Asset to me, so there's no harm in adding that to our list.

So let's add another line called Cash.

? \$50

So what does our Asset list look like now?

What are our Total Assets?

Fencing worth \$50.
Chickens worth \$150.
Cash worth \$50.

? Total = \$250.

It's a bit less than the \$500 we started off with at the beginning, but we now have a working business that can earn some money, over and over again.

Profit (again)

Teacher Note

Things are now starting to get interesting – and a bit more realistic.

We all know that things wear out. That's a fact that shouldn't just be forgotten. This next part shows how 'Wearing Out' can be added to our Profit list - and our Assets list.

It also introduces the idea that our lists fit together – which is what makes them even more useful as a Diagnostic tool.

But there still something not quite right.

Let's go back to our Profit list.

This shows the money we get from selling things and the money we've spent on getting the things to sell ... our various Expenses.

But is that all there is?

This is a hard one, but I'll give you a clue. Our list of Assets. The things we've paid good money for – money that's a bit different from the chickenfeed.

The chickenfeed and the rent – and your pay - is all gone at the end of the year, but even fencing doesn't last forever and will have to be replaced. And so will the chickens. Two of the things on our Assets list.

We have put that cost somewhere, because it is a kind of Expense, even though the Asset lasts a bit longer than the chickenfeed.

We could put the full cost on our Profit list at the time we paid the money – but that would make our Profit figure unrealistic, really terrible – both for the year we paid the money and the following years when it looks as though we got it for nothing.

Any ideas?

?

Workbook page: Profit list (4)

What if we have a think about how long our fences will last – and how long our chickens will live...?

Probably silly again, but what if we say they both last for five years...

How do you think we could use this idea?

What if we take one fifth of the cost every year for the five years of call it another kind of Expense? We could call it a "Wearing Out Expense".

So now, our Profit list has another line. It does look a bit unreal because it's not money we've actually paid, but it is realistic if we are looking at whether our business is making a profit or not.

So what did our fences and our chickens add up to?

What do we get if we divide \$200 by 5?

So let's write "**Wearing Out Expense**" under our Operating Profit line. Subtract that and we find ourselves with a new Profit line that's getting closer to the real thing. The Profit we have after we've taken away everything we can think of. Our accountant friends call it **Net Profit**.

What does Net Profit come to in your calculation?

So now we have a Profit list and an Assets list.

We've made a profit, after we've thought of everything, of \$350.

And our Assets add up to \$250.

Is that true... Or am I still missing something?

I feel as though I am...

Can anybody help me?

Workbook page: Asset list (2)

I'm happy with our Profit list now that we've added the Wearing Out Expense, but now the Assets list doesn't feel right.

Anybody?

Of course. I can't put a Wearing Out factor on the Profit list and not have something show up on the Assets list.

Now every year for the next five years the Profit list will show one fifth of the original cost – and that's fair enough.

But our Assets list is different because it has to show that the asset wears out over five years and becomes a less valuable Asset each year.

So on our Assets list, each year's Wearing Out allowance gets added to last year's Wearing Out total so that the end of five years, the original value and the wearing out factor are the same and the total asset value becomes exactly zero because we said it would wear out.

Maybe they have, maybe they haven't, but at least we've been reasonably honest about our Profits and our Assets values.

But while we're still on our Assets list, there's another thing we should take care of. People don't pay their bills straight away.

When we bought our fencing for instance, did we pay straight away or agree to come back with the money? When we sold our chickens, did we get our money straight away or did we allow our buyer to come back later with the money.

Sometimes we do, sometimes we don't. But if we don't pay or get paid on the spot, we don't actually have the money – or we haven't actually paid the money.

So to be entirely truthful, we can't call it Cash until we actually receive it or actually pay it.

Yes, it's nearly as good as cash, but not quite, so our Assets list shows the money that we're going to receive as an asset called *Receivables* – and the money we're going to pay as liabilities called *Payables*.

These Receivables and our Payables are both important and need to be watched carefully. Receivables especially. It's sad but true, but people hate paying their bills. It's human nature, I'm afraid.

But those unpaid bills are still our money – even though it's in their bank account, not yours. Someone else is using it to make their business better. Money that could be used to improve your own business.

Collecting that money is no fun, and I find it the least enjoyable part of business, but we have to spend time making sure we get paid. And paid quickly.

I've seen businesses go broke because they couldn't pay their own bills because others hadn't paid them on time, What's actually happening is that we're lending our money at zero interest rate – which is something that not even bankers will do ...!

So to help us manage our business, our Assets list should show Receivables as an Asset and Payables as a Liability – and we'll have to adjust our cash figure to account for the unpaid bills.

Usually you would get a figure for Receivables and Payables from your book-keeping, but for now, accountants have a way of calculating an approximate figure:

For most companies, it usually takes about 30 days to collect their money – and 45 days to pay, so those are the figures we apply to or Sales and Expenses figures.

Receivables =
$$\frac{\text{Sales x } 30}{360}$$

Payables =
$$\frac{\text{(Variable + Fixed Costs) x 45}}{360}$$

So now you can add Receivables and Payables to your Assets list:

In our case, the calculation comes to:

To now calculate the figure for Cash, we take the original \$500, add the figure for Sales adjusted for Receivables (640 - 53 = \$587), subtract the Expenses adjusted for Payables (250 - 31 = \$219) and subtract the cash paid for fencing and chickens (\$200).

Which all comes to \$668.

Cash

Teacher Note

One final list, the third of three.

For the survival of a business, this one is probably the most important. This is the list of <u>actual</u> Cash transactions. The point here is that the Profit list shows deals but not actual Cash. Buyers don't always pay immediately. That's reality, but we do need to record actual cash so we know we can pay our bills.

It's useful too, to separate the cash list into different parts of the business: the actual Operational cash, the Investment cash that's spend on new assets and the Financing cash that comes from lenders or business partners.

That's what the Cash list does.

How are we going?

I think you're doing brilliantly, because your lists look terrific.

So I think it's worth adding one more thing. We'll take a little glimpse into the future.

Our Assets list shows chickens, fencing and cash. At the moment, our cash figure is \$50, but it's worth taking a closer look at what our Cash adds up to.

So now we can start another list.

Workbook page Cash list (1)

Our Cash list.

Like the Profit list and the Assets list, this one also has some special headings for the different things we spend our money on. That way we can get a really quick view of where the actual money is coming from and where it's going to.

When it all boils down, there are three places we need to look at:

- Our Operating Cash. The money we get from customers and the money we pay to suppliers and employees: the actual money we used to operate the business.
- 2. Our **Investments**. The money we pay for the things that wind up on the Assets list (and the money we get if we sell it off later on).
- 3. Our **Financing**. The money we get if we go to the bank and borrow or if we let a partner buy a share of the company.

That makes the Cash list very easy to read – and most of all, the bottom line will show us how much money is actually in the bank.

That bottom line is worth watching because the worst thing of all is to not have money to pay your bills. Because that makes people very angry!!

So you watch your Cash list very carefully and make sure it's always up-todate.

OK.

So let's build our Cash list.

First, we'll deal with Operations, so back to our Profit list:

- 1. Money from customers:
- ? Sales: \$640
- 2. Money paid to suppliers and staff:
 - a. chicken feed (\$100);
 - b. rent (\$50);
 - c. pay \$100)
- ? Running Costs: \$250.

But like on our Assets list, have to make adjustments for Payables and Receivables to the actual Operating Cash on the Cash list. Cash we haven't received yet and Cash we haven't paid yet.

So on the Cash list we reduce the *Operating Cash In* by the number for Receivables, and the *Operating Cash Out* by the number for Payables.

So those figures now become:

? Cash In: \$640 - 53 = 587
 ? Cash Out \$250 - 31 = 219

That's the money for actually keeping and selling our chickens.

What about our Wearing Out allowance? Where do we put that?

The question is whether any actual cash actually change hands?

You're right. There was no cash. The Cash list should only show **Actual** cash. So we can leave it out.

So what do we have when we take Cash to Suppliers and Employees (\$219) away from Cash from Customers (\$587)?

? \$368

The next thing is the money we pay for things that we've added to the Assets list.

Any ideas?

? Fencing? \$50.

That's great. Write that down.

There is another interesting thing. Can anybody guess?

? The chickens: \$150.

You're right. If we think of them as egg laying machines, you can see that they're worth adding as the same kind of asset as the fencing.

Now I know I keep on doing this, but there is one more thing.

Remember how we sold all those eggs, but kept back 100 to hatch as new chickens. Remember too that we sold 50 of those chickens, but kept back 50.

They've got to be worth something. Even though it might look as though we got them for nothing because we hatched them ourselves, we must have paid for breeding them and keeping them.

So we should add something here for that cost. If we had a full book-keeping system, we'd probably know how much, but for now we'll just have to guess.

Let's say \$50 for breeding those chickens.

We'll add that to our list of egg-laying machines ...

Of course this means that they're worth \$50, so we should add that to our Assets list. Like we've already seen, all our lists fit together. Everything has to balance out

So this *Investments* section consists of \$50 (fencing) plus \$150 (original chickens) plus \$50 (newly hatched chickens) – which all adds up to \$250 cash out.

What's our total now?

Operations \$587 (Sales) minus \$219 (Payments)

? \$368

And then our Investments, the Assets we've paid cash for:

? \$250

So there's \$390 cash coming in from operations and \$250 of cash going out for our fences and our egg-laying machines.

The next line is for any extra money that's come in because you borrowed from the bank or sold a share of the business.

I don't recall that we've done any of that, so there's nothing to write here.

So let's put all this together:

? \$118 of actual cash.

Now we come to a really interesting part. Down at the bottom of our Cash list.

Here we have three more lines: the first is for the increase (or decrease) in the cash. It looks as though it's increased. Can anyone tell me how much?

? \$118 increase.

You're right.

For the next line, you'll need to think back.

Remember how we started off right at the beginning with \$500.

So the second line is that Cash at the beginning (\$500).

And now the third line is Cash at the End – which is?

? \$118 + \$500 = \$618.

I agree.

So you see why this third list, the Cash list, is just as important as the other two. We now know we actually have \$640 in cold hard cash at the end of the year.

Whew!!!

Ownership

Teacher Note

The final thing in our simple Case Study is to show what the business is worth to the person who's put all the time and effort into starting it up and keeping it running. The Owner.

A few extra lines are added to the Assets list to show the value of Ownership ... also known as Owner's Equity.

I don't know about you but I'm exhausted. We've covered an awful lot of things and we now have three really useful lists.

Workbook page: Asset list (3)

Our new Cash list has just shown that at the end of the year we really have \$618, so we'd better fix our Assets list with this new figure.

And the final thing is our extra egg-laying machines. The new ones we talked about on our Cash list. We can add their value to the Assets list as well.

So now our lists look terrific. We also know that if we change one list, there's nearly always something to change in another of our lists. And that's what we've done. So now we're finished.

Do we all agree that every dollar has now been accounted for?

?

I'm sorry to say that that was a trick question. There's one more thing that doesn't show anywhere – and for you, it's really important.

Remember how we started off, right at the very beginning, before we bought anything?

That's \$500 that you must have saved up to start your business. \$500 you could have used on lots of other things but you chose to put into the business. Your money. It shouldn't just disappear and your contribution be forgotten.

It's already been shown on our Cash list, but there's a place in our lists where everybody can see that you've put that money in and that you are entitled to the benefits the company can bring.

Let's go back to our Assets list and what it might show at the end of the first year.

What do all the Assets add up to?

? \$850

Great. Now let's look at our numbers in another way.

What do we get if we take the original \$500 and then add the Net Profit figure from our Profit list?

? \$850

Wow. Just like magic! Exactly the same as our Net Assets!

So the proper way of doing all of this is to add three more lines to the bottom of the Assets list and call them *Ownership* (or what's often called *Equity*):

Your very first contribution

? \$500

Plus Net Profit

? \$350

Comes to Total Ownership (Equity) \$850

This way everyone can see what you've put in – and have the right to take out honestly.

That's only fair.

Business Diagnostic

Teacher Note

We can now use our lists to begin some simple, but useful Diagnostic tests.

The tests aren't complicated. They're simply an introduction to why these lists are so useful and what can be done with them.

At this point, a couple of Profitability calculations show how these figures can be used to diagnose the business.

We're now at a very interesting point.

What you've written down is better than just a list of numbers.

You could look at these numbers and see:

- How your business is performing
- How it compares with other businesses
- As time goes by, you can see whether you're getting better or whether there are things that you need to improve.

So how do we do that ...?

Workbook page: Diagnose your Business (1)

Let's have a look at our Gross Profit.

How much did we make?

? \$540

How much is that as a percentage of our Sales?

? 84%

Which is really interesting, because if we look at lots of other businesses, we often find that Gross Profit is around 80%.

Not every business is the same, of course. And it's not an exact figure, but it's enough to start you thinking. If I'm not getting 80% am I doing something wrong – or am I really just different.

If I'm getting 90%, have I forgotten something I should have paid for?

If I'm getting 50% am I spending too much?

That's Gross Profit. What about Net Profit?

The same idea applies.

How much Net Profit does our Profit list show?

? \$350

And what's that as a percentage of sales?

? \$55%

The rest of the world thinks that less than 10% is hardly worth the effort; more than 30% is usually too good to be true.

Again, there might be perfectly good reasons. But at least you know that you need to look more carefully at your figures.

Have I forgotten something? Am I paying too much for something in my Operating costs?

Where can I make improvements?

If I was a banker considering a loan, I'd be thinking about how truthful the borrower is – or whether they really know it enough about the business they're trying to run.

Or is this a really good investment because the borrower has had an idea that nobody else has had before and therefore deserves to be supported?

This business of comparing yourself with other businesses is called **Benchmarking**. So far we've only looked at a couple of things but you can see how useful it can be for somebody trying to make their businesses run better – and somebody wondering whether it's wise to lend them money.

Already, just by looking at our profit list, we can get something useful. But we can also use our Assets list.

We have a figure for the Profit we're making, we also have a figure for the value of all our Assets – and another for what we've invested in the business... The "Ownership" figure.

What do we get if we divide our Net Profit by Total Assets and turn it into a percentage?

? 41%

And what if we divide Net Profit by the Ownership figure?

? 41%

Let's say a figure of around 20% is a bit like the rest of the world.

At this stage, these figures aren't very realistic- which is what I said right at the beginning, but now you have an idea of what you're getting for all the money you've invested.

Having said all this, I should add that you shouldn't get too exact about these things. Every company, every industry, every sized business is different.

The important thing is that it's good to watch these Benchmarks year after year and compare them every year as you go along. That way you're comparing with exactly the same business every year and can see how you're really going.

If you're a banker. It's often better to build up your own list from the businesses you know.

Now you've done all your book-keeping in the professional way and heard about ways of analysing your business. You can imagine how useful it will be to do it with real figures.

In the next session, we'll work a lot more on business diagnostics, but already you can see the kinds of questions you can ask. Things like:

- Have I forgotten something really important?
- Do the figures look so wrong that you wouldn't lend money to this business?
- Do the figures look so exciting that you'd love to lend money to this business?

And these last two questions are really important, especially for a Banker, because you could now start thinking about which business you'd lend money to.

- Most profitable
- Best benchmarks
- Most realistic
- · Most trustworthy.

Wrap

Teacher Note
... and here's where we take a break and prepare for the second half.

I think you've all done brilliantly.

There's much more to all this, of course, but we've made a great start.

You've seen how to keep records of your business and, especially, how to set out those records as lists that will help you make the business – and your life – much better.

It's a way of working that lets you get more out of your business – and reduces the risk of going broke.

It's been terrific working with you and I have high hopes for your futures in business.

Thank you all very very much ...