Wheat prices have hit an all-time high. The International Grain Council claims that prices will remain volatile due to supply uncertainties and developments in financial, energy and other commodity markets.
What is the difference between price and cost?

Cost: The total sum involved, including all expenditure associated with ownership and use of a product or service, including price.

Price: Amount of CONSIDERATION to be paid or given to a supplier for an article, good or service, or for something desired, offered or purchased.

Price may also be characterised as the supplier-stated value of a product or service, measured in terms of the monetary unit of the country concerned. The customer may have a different value for the product or service, based largely on the utility level assumed to be achieved from ownership of that product or service.

Whilst price and value are therefore closely related, a distinction nevertheless has to be made between them, ‘value’ being defined by the DTI as ‘taking into account the optimum combination of whole-life cost and quality necessary to meet the customer’s requirement’.

Among the techniques available to the purchaser to maximise value (for money) are:

- value analysis
- process re-engineering and waste elimination in the manufacturing, distribution and storage processes
- encouraging standardisation
- adopting whole-life methodology rather than simply focusing on initial price
- post-tender negotiation
- reducing or eliminating inventory
- global sourcing proactive sourcing (such as encouraging competition by avoiding repeated use of established suppliers)
- giving consideration to the refurbishment of existing equipment rather than buying new.

Buyers and their colleagues are naturally keenly aware of the importance of price. When considering the purchase of a product or service, the buyer will have a number of key factors in mind for determining the reasonableness (or otherwise) of the price being asked. For example:

- the price being paid by competitors
- what may be thought of as a fair price
- the period over which the price is agreed
- the quantities likely to be involved
- the level of risk attached to the purchase.

Once the buyer is happy to proceed he will enter into a price agreement with the supplier. This will be either on a firm price basis, which has obvious advantages for the buyer, or on a cost plus basis, whereby an agreed percentage is added to the basic cost of the product or service; this is the supplier’s margin.

Price is usually the most visible part of purchase costs and non P&SM professionals often focus on it too much. Other costs associated with a purchase could include:

- training costs
- test and support equipment costs
- inventory and distribution costs
- customer service costs
- transport and handling costs
• technical data cost
• disposal costs.

What can change prices?

Price is often considered to be the sum of money which must be expended to fulfil a wish or need to acquire a product or service.

Price is influenced by supply and demand. When demand is largely unaffected by a significant change in price, it is said to be inelastic; conversely, when a slight change in price brings about a significant change in demand, the latter is said to be elastic. Demand is likely to be inelastic when there are few competitors, when buyers are conservative in their buying habits, or when buyers do not, for whatever reason, challenge any price increases. Should a product suddenly become scarce and demand outstrip supply, the price will normally rise.

Sales and marketing departments have ways of softening the impact of such increases, one being to reduce the quantity supplied at the given price. In partnership relationships, both partners work together to minimise the effect of cost increases. This can involve accurately forecasting such increases and preparing strategies to minimise their immediate effect.

A suggested list of steps to assist in improving pricing strategy is as follows:

• Assess the value placed on the service or product by a potential customer. For example, is the product or service viewed as better than similar products on the market? If not, should the price be reduced?
• Are there any variations in the way customers value the service or product? Rather than sticking to a single product/price policy, should consideration be given to customising both for a particular segment of the customer base? (In the software industry, for example, discounts on new products are often offered to customers who already have a previous version.) Similarly, is there a variation in intensity of use by segments of the customer base? Heavy users will often value a product more than light users.
• What is the customers’ price sensitivity? If an increase or decrease of, say, 2% is made, what will be the effect on customer behaviour?
• Is there an optimal pricing structure? For example, Disney charges admission to its theme parks, after which all rides are free. Is this better, and does it attract more custom than charging for each individual ride? Two other issues to consider are: should bundled pricing be offered and would quantity discounts be advantageous? An example of bundling is the camera retailer who supplies film with the camera the customer is interested in, at a reduced price to what it would cost to buy them separately. The strategy here is to forego some of the initial profit potential on the hardware with a view to increasing sales volume, and also to increase the potential demand for the software i.e., the film if the customer likes it. The quantity discount strategy involves offering discounts on subsequent purchases of the item or service at the same time, to increase turnover. For example, if a seller will not budge from a particular price, then buyers will probably restrict their purchases to the absolute minimum.
• On large contracts, it is often the case that a prime supplier will undertake to supply a complete package of peripherals as well as its prime product. By bundling. The customer might go elsewhere if this service is not offered, and the supplier will lose out on sales of its equipment to those who are prepared to accept the responsibility of sourcing the complete package.
• On the other hand, a seller offering discounts will - human nature being what it is – sell more. In the case where one costs £100, a second costs £80, a third £60, and so on, turnover is likely to be higher than if every item purchased costs £100.
• What will the reaction of the competition be? Is a price war a possibility? Is your pricing policy flexible enough to deal with such a situation? Consider what you would do if a competitor suddenly entered “your” market with a similar product at a competitive price. Could you respond?
• Continually monitor the prices realised at the sales level and be prepared to adjust them if required. Are warranty demands too high? Are sales increasing or decreasing? Is the anticipated return on the product being achieved, or do you have a set of inflexible price lists which are out of date?
• What is the customers’ emotional response to your product/service and price? What are the customers saying about your company and product? Are they selling for you by word of mouth? Are they increasing their demand for the product at current prices? If so then your prices are probably about right, but do not be complacent.
• Regularly analyse the cost of a product or service against the bottom line. If costs are increasing and profits are static, should you continue selling that product or service? Will the product or service stand a price increase? Will a variation in quality increase your sales or revenue? There may also be an opportunity to reduce process costs, which contribute to the bottom line.

How can purchasing help directly?
A formula developed for calculating the impact that a reduction in direct expenses (achieved via procurement automation) has on overall profitability is given below:

\[
\text{Percentage gain in profits} = \frac{\text{purchasing as a % of sales}}{\text{divided by profit margin}} \times \% \text{ saved in purchasing.}
\]

For example, a company that spends 60% of its sales revenue on purchasing and that has a 10% profit margin will realize a 30% gain in profits when it reduces its total purchasing costs by 5%, as indicated in the following calculation:

\[
\text{Percentage gain in profits (30)} = \frac{\text{purchasing as a % of sales (60)}}{\text{divided by profit margin (10)}} \times \% \text{ saved in purchasing (5)}.
\]

Process re-engineering
Another area in which purchasing can get involved is that of process reengineering. If you consider the total cost of a product, there is the price paid for the direct materials, along with the indirect materials and process costs.

Process re-engineering can not only help take non-value added costs out of the equation, but can also affect the way in which the product is transported, ordered, received and stored. Process reengineering overlaps with both ABC Analysis (see section on How ABC Costing Can Help, below) and Lean Thinking, in that in order to achieve optimum results it is essential to understand what is waste or what doesn’t add value.

The seven waste areas - overproduction, defects, unnecessary inventory, inappropriate processes, excessive transportation, waiting and unnecessary motion - can all be considerably reduced by doing a detailed mapping exercise (often referred to as value stream mapping) of a product, and examining the supply chain to eliminate these waste areas as much as possible.
This will be an on-going quest. Once the areas of waste and non-value add are highlighted, then processes can be re-engineered to help reduce the wasteful and non-value added activities. It is probably impossible to get to a point where waste is totally eliminated, but processes can be reviewed and re-engineered when appropriate, to ensure the costs of a product or service are kept to a minimum.

The thought and preparation which needs to be put into process reengineering can be complicated and extensive. CIPS recommends further reading on this subject to understand it fully: //www.leanenterprise.org.uk/ is a useful starting point. The booklet ‘Going Lean – a Guide to Implementation’, by Peter Hines and David Taylor, is also a useful and comprehensive guide to effective process re-engineering (see above website for information).

Which pricing strategies can suppliers use?

Purchasing professionals need to be aware of the strategies used by suppliers to price their products to optimise their market position. These include:

- market penetration pricing – pricing low to win a large share of the market
- market skimming - pricing a new product high in order to make a large profit from the purchases by initial customers. This is an effective strategy only in the absence of competition. When competition appears, market skimmers usually drop their prices
- cost-plus pricing (described above) - the costs of production are calculated and a margin added for profit
- marginal pricing - once all the fixed costs have been recovered, the cost of any extra sales is the only variable cost associated with the product/service being sold. This permits pricing at below total cost (such as below variable cost + fixed cost) to be profitable
- going rate pricing - pricing a product at a similar level to the competition (usually the market leaders)
- premium pricing - usually pricing high because the market is prepared to pay extra for the kudos associated with the product, thanks to, say, a reputation for quality, or a highly fashionable brand name, and so on
- buyer based pricing - pricing at a level which the buyer will pay
- discriminating pricing - examples are off-peak prices, special rates for children, pensioners and so on
- captive pricing - pricing high because the buyer has no choice but to buy from the supplier
- relationship pricing - pricing aimed at maintaining a long-term relationship with a buyer.

Astute purchasing professionals will of course be alert to the importance of pricing strategies in their negotiations with suppliers, and will aim to achieve worthwhile savings for their organisations. The CIPS Position on Savings has identified ways in which the cost-conscious buyer can achieve such financial benefits. These include:

- agreeing a straight forward reduction in price, such as obtaining the same item for a lower cost
- sourcing or developing with the supplier a lower quality item (that still satisfies the performance requirement) at a lower cost
- obtaining better value for the same cost (for example by negotiating extended warranties)
- negotiating retrospective rebates
- obtaining lower unit prices through bulk orders.
How can contract price adjustment help?

Particularly in the case of capital projects which may take some time (months or even years) to complete, the cost of materials and labour will, even in times of low inflation, almost certainly increase. In this case a price adjustment clause will normally be a feature of the contract. The best-known formulae used in these clauses are those developed by BEAMA (formerly the British Electrical and Allied Manufacturers Association), which have served as the model for a wide range of industries and sectors. It’s important for both buyer and seller to know that the formulae they use enjoy wide acceptance. Those developed by, and derived from, BEAMA satisfy this requirement.

The BEAMA formula is shown below:

\[
CPA = \frac{PL - TL \times 100}{TL} - \frac{PM - TM \times 100}{TM} \times CP
\]

where:
- \(CPA\) = Contract Price Adjustment.
- \(CP\) = Contract Price.
- \(PL\) = Average labour cost index for certified period \(E-C\), such as the average of last 2/3 of the contract period.
- \(PM\) = Materials cost index at a period 3/5 of contract period.
- \(TM\) = Labour cost index at date of tender.
- \(TL\) = Materials cost index at date of tender.

A further example of an escalation formula is provided by Farrington, who has suggested the following formula for capital purchases.

\[
P1 = P0 \left( a + b\frac{M1}{M0} + c\frac{S1}{S0} \right)
\]

where:
- \(P1\) is the final invoiced price, which will vary from the original price at the date of quotation due to movement in the cost of relevant materials and wages.
- \(P0\) is the initial price at the date of quotation.
- \(M1\) is the mean of the price for materials concerned over the last 2/3 of the period of contract.
- \(M0\) is the initial price for the same materials at the date of quotation.
- \(S1\) is the mean of the wages of shop-floor personnel over the last 3/5 of the period of the contract.
- \(S0\) is the initial wages for the same staff at the start of the contract.
- \(abc\) are the contractually agreed proportions of the initial price at the following percentages:
  - \(a\) fixed proportions at 15%
  - \(b\) materials at 44%
  - \(c\) wages and social charges at 91%.

It needs to be borne in mind that the application of the price adjustment principle is intended to accommodate only those changes in the seller’s costs which he could not easily have foreseen at tender. Furthermore, the formula must be able to accommodate both falls as well as rises in commodity prices during the course of the contract.

The principle is similar for all formulae. Materials and labour costs are taken and weighted as a proportion of the contract value. These are applied as required, and are multiplied by a
function of the difference in the escalation indices between the date of tender or contract and the date of the proposed change in cost.

However, many smaller organisations find it simpler to adjust their prices in accordance with changes in the retail price index. This is not an accurate price adjustment mechanism, but its attraction lies in its convenience.

**What does the buyer expect from price adjustment formulae?**

In ‘Buying Goods and Services’ by Allwright and Oliver (1997), it is suggested that the following are the key expectations as far as the buyer is concerned:

- fairness to both parties
- wide acceptance of the formula used (if the formula is widely recognised and accepted, as is the case with BEAMA, the risk of argument or disagreement is much reduced)
- ease of use (a simple, straightforward formula is preferred)
- suitability (the formula must relate to the type of goods, materials or services being supplied).

**What are the main categories of cost within an organisation?**

The traditional approach to costing within an organisation may be summarised as follows:

**Direct costs:**
- Direct labour costs
- Direct material costs

**Indirect costs:**
- Manufacturing overheads
- Administrative and selling costs

Direct costs are those directly attributable to production, for example the cost of labour and materials directly involved or used to produce the goods/services which the organisation sells.

Examples of **Direct costs** are:
- **Materials:** The raw materials used in a project, bought in parts and assemblies, used to produce the finished product.
- **Labour or wages:** That which is paid to staff for the work involved in producing the product, such as the salaries directly attributable to a saleable service.
- **Expenses:** Those incurred that can be specifically attributed to a particular product, batch or service.

Indirect costs are those costs that are not directly attributable to production, for example the cost of the personnel department or the finance department. Examples of Indirect costs are:
- **Materials:** Office and factory consumables that are not accounted for individually, such as stationery, maintenance materials and some spare parts for machinery.
- **Labour:** Supervision, maintenance, store- and security-staff wages, and so on.
- **Expenses:** Rent, rates, insurance for plant and machinery, and so on.

Indirect costs need to be apportioned in some way to the individual goods or services which are produced. Usually, some cost driver is found. Examples of cost drivers include the number of items produced, the number of direct labour hours required to produce those items, and the amount of direct materials used.
Variable costs are those which vary with the amount produced. The cost of materials in a production process is variable (as well as direct). Fixed costs are those which are invariable, irrespective of how much is produced. Examples include rent and heating costs. Fixed costs can vary. For example, if an organisation expands its production so much that new premises are necessary it will probably have to pay more in rent.

The analysis of costs into fixed and variable enable organisations to determine their break-even point – the point where total revenue and total cost exactly balance. This is illustrated below:

Prices are made up of Direct costs and Indirect costs, which are combined to give the overall cost of producing an article or providing a service, and to which a profit element is added.

**Direct costs** = Direct Materials Costs + Direct Labour Costs + Direct Expenses.

These are called prime costs.

**Indirect costs** = Indirect Materials + Indirect Labour + Indirect Expenses.

These are called overheads.

As mentioned, adding prime costs and overheads will give Total cost.

**Thus: prime costs + overheads = total cost**

However, in recent years the familiar scenario outlined above has been challenged. In the Gower Handbook of Purchasing Management (Chapter 7: Purchasing and Costing) it is pointed out that this analysis dates from the early 20th century, when social and industrial conditions were very different from today, and when direct labour costs constituted the most significant element.
The use of this measure in today’s environment may lead to distortions in the figures for product costs. The suggestion is that high-volume, standardised products might be unfairly penalised, and that low-volume, specialist products might be under-loaded in terms of the allocation of overheads based on the traditional approach. In other words, high-volume products might be seen as ‘subsidising’ low volume products. If this is so, then there is a risk of firms incorrectly assessing the potential of their product ranges, and as a result adopting flawed product development and marketing strategies.

A further weakness of the traditional way of dealing with overheads is that it does not draw attention to the main causes of overheads, such as the activities which generate them, hence the emergence of the ABC approach (see below). A further limitation is that traditional accounting approaches are focused on departmental or functional boundaries within the organisation; one result of this is that a financial control and measurement system which is appropriate for one department may be less than suitable if applied to other departments or functions, or to the organisation as a whole.

Solutions to such problems may be divided into two main groups or approaches:
- introducing and implementing more sophisticated versions of traditional accounting methods
- adopting more radical methods and solutions, such as throughput accounting or activity based costing.

**How can activity based costing (ABC) help?**

Activity based costing (ABC) is an accounting method in which variable and all related overhead expenses are specifically assigned to a business activity, rather than a section or department, or specific capital purchase. The traditional absorption of volume related overheads, as mentioned above, has tended to overcost products on long runs and undercost those on short runs.

ABC directly relates overheads to products not by volume, but by a number of specific factors called cost drivers.

An illustration might help to explain how ABC works. Traditionally, in a manufacturing plant engaged in batch production, the cost of the various setups of machinery to produce different items was aggregated and then apportioned, perhaps on the basis of the total cost of direct materials used.

For example, the costs associated with breaking down and setting up equipment over a period were added up to produce a total set-up charge. The value of all of the direct materials used over the same period was then calculated. By dividing the total cost of the set-ups by the total cost of the direct materials used, an amount of money was calculated which could be added to the costs of that product in order to recover the cost of set ups.

\[
\text{Amount to be added to the cost of each item produced in order to recover the cost of set-ups.} = \frac{\text{Total cost of set-ups}}{\text{Total cost of direct materials}}
\]

A little thought suggests the flaws in this approach. Production of many small batches will require many more set-ups than the continuous production of one large batch for which only one set-up is required. The effect of the above calculation is that large batches will bear more
than their fair share of these costs. Small batches will bear much less than their fair share. The net effect will be that large batches will be overpriced and small batches will be under-priced.

The cost of the set-ups should be apportioned on the basis of the number of set-ups required, rather than the amount of direct materials used - such as the cost of the each set-up should be directly charged to each job. The cost driver in this case is the number of setups and not the amount of direct materials used.

There are a number of steps required to facilitate the implementation of ABC. These are:
1) Identifying the main activities of the company (materials handling, reception of goods, purchasing, machining, assembling, painting, packaging, and so on)
2) Identifying all processes and activities that determine the cost of an action (number of orders placed, orders delivered, set-up times, and so on). These are cost drivers.
3) Collating the costs of each activity, similar to traditional cost centres
4) Charging all support costs and overheads based on their rate of use for the identified activity.

**Activity based costing and environmental costs**

Using activity based costing, environmental costs are removed from overhead costs and traced to specific products and services, by identifying the resources, activities and attendant costs and quantities used to produce them. This reduces the potential for cross subsidisation of dirty or environmentally damaging products, processes, sites and departments. ABC can be employed to chart the use and allocation of materials, financial resources and energy on the basis of process and product lifecycles. It should include the allocation of usual production costs, such as pollution control and the use of raw materials and energy, as well as hidden and less tangible costs and benefits (capital costs such as emissions-monitoring equipment, and expenses such as monitoring and testing procedures), plus liability costs. Removing environmental costs from overhead costs and accurately allocating them to specific products results in far fewer distortions in product costing.

Table 1 below illustrates an Environmental Costing Framework based on Activity Based Costing / Management:
Activity based costing also applies to the end of a product’s life cycle. This is particularly important in Europe, where environmental legislation is increasingly forcing companies to be responsible for the ‘take back’ and disposal of products at their end of life, and to remediate land used for production facilities. Companies wishing to minimise product take back, recycling and site clean-up costs will need to recognise and consider environmental costs during product- and process-design stages, where they have the greatest influence. A comprehensive ABC model will help identify all the activities and resource costs related to...
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preventing and remediating expected environmental damage. Current environmental costs must be correctly attributed to both existing products and past products. A failure to recognise the costs of future disposal, recycling and remediation will underestimate the total costs of producing today's products.

Activity based costing can also be used to create activity based energy consumption models. Here energy consumption is translated into a cost driver. In a similar way, waste indices and indicators can be developed, becoming waste drivers where costs can be specifically assigned to waste generation and waste disposal.

Comprehensive analysis of environmentally related activities is also a key requirement in order to assess levels of environmental hazard and toxicity, and their associated costs. Such analysis identifies and assigns key cost drivers and product consumption patterns, thus permitting accurate attribution of environmental costs to individual products. To the extent that some environmental costs are traced to specific processes, all the products made using these processes will be assigned a share of the process-specific environmental costs. Thus, an ABC model of environmental expenses can inform product design and process selection decisions, in order to reduce total lifecycle costs of products, including materials acquisition, materials conversion, materials disposal and recycling. In addition, ABC can be applied to environmental costs so as to quantify the cost-saving effects of environmental measures.

Activity based costing is only one of the means by which environmental management accounting is introduced into business. ABC initiatives do not automatically reveal environment-driven costs – substantial input from environmental managers is required in order to ensure that the costs of all environmentally related activities are included.

Using ABC to identify and allocate environmental costs requires the clear definition, monitoring and reporting of such costs. Tracking systems for environmental waste from manufacturing systems is necessary in order to most accurately assign such costs. This in turn provides data for the estimation of potential liabilities, costs of disposal and other lifecycle costs. One of the main advantages of using ABC to assess environmental costs lies in its use as a means to integrate environmental cost accounting into the strategic management process – thus linking environmental issues into management objectives and activities.

In addition, in using ABC, environmental costs can be more accurately integrated within manufacturing planning, control and other information systems. This provides an extensive consideration of the environmental effects throughout the product life-cycle. It also ensures that intangible and uncertain environmental factors can be brought into any decision making framework, even while debate continues over which environmental costs are the most relevant or material to the organisation. From a management accounting perspective, the next step beyond activity based costing of environmental impacts is strategic cost management. Here, cost data is used to develop superior strategies in order to gain sustainable competitive advantage.

The inclusion of internal environmental costs in its accounting assists a company in maximising its current profitability. Inclusion also helps ensure that the company recognises and accounts for its external environmental costs, especially when it is likely that it will be required to internalise these costs in the near future. More information be found at: //www.fsn.co.uk/channel_kpi_environment/environmental_accounting_an_activity_based_c osting .
How useful is life cycle costing (also known as whole life costing)?

Life cycle costing (LCC) is a well-known method used in procurement, systems engineering, and other activities where it is of interest to estimate and compare costs for development/investment, acquisition, operation, support and disposal during the life cycle of a product. This technique can be used for many reasons, but its primary uses are:

- comparison of competing alternatives
- long-range planning and budgeting
- comparison of logistics concepts
- selection among competing contractors
- decisions about replacement of ageing equipment
- control over on-going programs.

Life cycle costing is most frequently associated with environmental purchasing, but in fact has been used successfully in capital equipment acquisitions for many years. LCC is a means of evaluating performance “from the cradle to the grave” and provides a measure of the “total cost of acquisition” or the “total cost of ownership”.

It is recognised that as environmental legislation continues to be passed (for example, the EU Packaging Directive, and eco-labelling laws), there is a pressing need to incorporate LCC into the purchasing decision. This is because many decisions which have been taken using LCC considerations have been found to be better in environmental terms than those taken on the basis of price alone.

When applied to the environmental aspects of purchasing, LCC is a process for systematically looking at the environmental impacts of a company’s products/services, from the extraction of raw material in the case of a product, or the conception of an idea in the case of a service, through to processing, manufacturing, assembly, use, and final disposal or re-use.

The main difficulties which purchasing departments will encounter when trying to use LCC techniques are: the information is usually hard to get hold of; many of the elements may be intangible, such as goodwill/customer perception of quality; and many of the future technical developments and legislation which may be relevant to the assessment are not foreseeable.

When using LCC techniques for assessing capital expenditure, the purchasing department must take into account a number of factors in order to ensure that the total life cycle cost of ownership is minimised. Often, in decision related to capital equipment, the information required is easier to find than for environmental considerations, as it is based on past experiences, records and the company business plan for new equipment. It has been suggested that the following factors need to be taken into account:

- conceptual design
- detailed design
- procurement
- construction
- pre-commissioning
- commissioning
- start up
- asset life earning period
- de-commissioning
- demolition.
Other factors that might need to be taken into account could include:
• rework
• logistics and support
• permits and procedures
• major overhaul
• planning and scheduling
• supervision and field labour.

Books, articles and websites

Books
Creative Control of Purchase Prices
B Farrington
2001

Buying Goods and Services
A Allwright and R Oliver (updated by S Singleton and K Burnett)
CIPS
2001

Gower Handbook of Purchasing Management (Ch 7: Purchasing and Costing)
M Day (Ed.)
Gower
2002

Purchasing and Supply Chain Management (Ch 10: Buying at the Right Price)
C K Lysons and M Gillingham
Prentice Hall 2003

Essentials of Cost Management
C and J Stenzel

Activity Based Cost Management
G Cokins

Advanced Management Accounting
A Riahi-Belkaoui

Pricing for Profitability – Activity Based Costing for Competitive Advantage
J L Daly

Costing and Pricing in the Digital Age
H Snyder and E Davenport

Pricing Strategy – An Interdisciplinary Approach
M Engelson

Power Pricing – How Managing Price Transforms the Bottom Line
R J Dolan and H Simon
Financial Transactions, Costing and Pricing
J Sutherland and D Canwell

Articles
The Fallacy of the Overhead Quick Fix
M Blaxhill and T Hout

Managing with Activity Based Costing
J Innes and M Falconer
Professional Engineering, July/August 1991

Yesterday’s Accounting Undermines Production
R S Kaplan
Harvard Business Review, July/August 1984, pp. 95-101

Numerous other articles on costing and pricing may be identified through the Harvard Business Review BR website.

Another useful source is the monthly journal Management Accounting, the official monthly journal of CIMA (Chartered Institute of Management Accounting).

Websites
Association of Chartered Certified Accountants .acca.org.
Association of International Accountants .aia.org.
Chartered Institute of Management Accountants .cima.org.
Chartered Institute of Public Finance and Accountancy .cipfa.org.
Institute of Chartered Accountants in England and Wales .iaew.co.