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Financial markets key to delivering a clean energy future

By The Hon Mark Dreyfus QC MP, Parliamentary Secretary for Climate Change, Energy and Efficiency

On 1 July 2012, the carbon pricing mechanism started and Australia took a decisive step towards a clean energy future. After much discussion and more than 20 years of parliamentary enquiries about responding to climate change, the Government passed the Clean Energy Legislative Package through Parliament in late 2011.

Putting a price on carbon will cut greenhouse gas pollution, drive innovation and investment in clean energy and deliver much needed certainty for businesses to invest in cleaner and more efficient technologies across the economy. As one of the most emissions intensive economies in the world, the challenge for Australia in transitioning to a clean energy future is significant, and the time to move is now.

We are focused on implementing the carbon pricing mechanism. In recent months the Government has been setting up the systems to support carbon pricing. In early April the Clean Energy Regulator (CER) started operating and it, together with the Department of Climate Change and Energy Efficiency (DCCEE), has been working with those covered by the mechanism to develop the compliance and administration systems required through regulations and guidance.

Before discussing the ways in which the mechanism manages risk and supports the development of robust financial markets, I want to outline why the Government thinks that capital markets have a key role in reducing greenhouse gas emissions.

Why price carbon through markets?

Put simply, the most efficient way to reduce greenhouse gas emissions is through a broadly based carbon price set by the market. This is not just the Australian Government's view: it is shared by the OECD, the IMF, the World Bank, the Stern Review and our own Productivity Commission. It was recommended as the right way to go by Professor Ross Garnaut.

A market driven emissions trading scheme can achieve emissions reductions at the least possible cost to the economy. It directly gives businesses and others incentives to reduce emissions, wherever they are in the supply chain. It also encourages consumers to respond, by allowing them to more readily distinguish between intensive emissions and low emissions products and services.

Over time, the most efficient, least polluting firms will have an advantage over less efficient, higher polluting firms, driving further innovation and emissions reduction through competition.

The Hon Mark Dreyfus QC MP.

Emissions trading schemes (ETS) are increasingly widespread amongst the world's industrialised economies. Thirty two countries already have an ETS in place, including New Zealand and the European Union, and, of these, 26 are part of the 34-member OECD. Some EU member states also have their own carbon prices or pollution taxes. California, the world's eighth largest economy, started its emissions trading scheme this year.

Our major trading partners are also taking action. China, which is the biggest economy in our region, is about to pilot emissions trading schemes in seven provinces covering 200 million people. South Korea's parliament recently passed laws to introduce a national ETS in 2015 with almost unanimous agreement.

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> This means that **carbon** units may be ***dealt*** with in the same way as other forms of personal *property*

How the mechanism operates

The carbon pricing mechanism will, after an initial fixed-price period, move to a full emissions trading system in 2015. The transitional fixed-price period will ensure an orderly transition to a more efficient low carbon economy. It will provide price certainty and allow time for businesses and others to adapt to a market based mechanism.

On 1 July 2015, the mechanism will move to a fully flexible cap-and-trade scheme. Units are being auctioned in advance, however, for use after this date. This will send a strong forward price signal to the market before the flexible price period starts.

In designing the mechanism the Government has included features that provide the clarity and certainty needed to support secondary markets in driving future investment in cleaner energy sources and more efficient technologies.

Carbon units are the basic tool of the mechanism. Each represents a tonne of emissions produced by a liable entity, and may be surrendered to meet a carbon price liability. Other units, such as Australian carbon credit units and eligible international units may also be used, subject to specific conditions. They may be acquired either through auctions conducted by the CER, purchasing from other holders of units or as free units issued by the Government to some generators and emissions-intensive trade-exposed industries. They will be held on a secure Registry.

The mechanism's unit issue, transfer and surrender systems will enable entities to efficiently acquire, trade and surrender units within a robust and certain regulatory framework. To provide clarity and certainty about the legal status of carbon units, section 103 of the Clean Energy Act provides that they are personal property. This means that carbon units may be dealt with in the same way as other forms of personal property. Units could, for instance, be traded, offered as security, treated as trust property or vested in a trustee in bankruptcy.

Clean Energy Regulator

The CER is an independent statutory authority that administers the carbon pricing mechanism.

As the CER has put administrative arrangements in place, it has been very conscious of the need to minimise the burden on business, and, therefore, to streamline procedures for the reporting and surrender of emissions units by liable entities under the mechanism.

There are rigorous and appropriate compliance and enforcement provisions in the legislation which represent best practice in their field and are consistent with provisions in other legislation covering, for example, financial products or tax. This is essential in ensuring investors have full confidence in the operation of the carbon price and the Registry.

The CER is providing assistance and advice on a broad range of financial and carbon market issues, especially around managing carbon liabilities. DCCEE and the CER are also working closely with liable entities and their professional advisors to map out the issues in risk management, brokerage, hedging and international permit trading.

A robust framework for dealing with fraud and crime

There is a comprehensive framework to address the risk of fraud and criminal activity in the carbon pricing mechanism.

The CER has robust investigation powers consistent with those of other economic regulators like ASIC and the ACCC. These powers are backed by tough criminal penalties for fraudulent or dishonest conduct consistent with financial market and competition and consumer protection laws.

The Registry also includes specific anti-fraud measures to ensure its integrity including identity checks and fit and proper person tests for people wishing to open a Registry account. The CER has the power to prevent suspicious or fraudulent transactions in the Registry and to restrict or suspend Registry accounts. Money laundering laws also apply to ensure that suspicious carbon unit transactions are identified and reported.

Developing secondary markets

The Clean Energy Act does not prevent or limit the future development of secondary markets for trading emissions units in Australia or elsewhere. However, these markets must comply with the legal and technical requirements of the Registry, Australian and international financial services and market regulation laws.

The Registry currently allows secondary market trading in a similar way that the registry for renewable energy certificates does. There is an ongoing process of considering the way in which the Registry interacts with secondary market activities and the effectiveness of these arrangements, and the Government welcomes continued engagement with the financial services industry and financial markets on these issues.

The carbon pricing mechanism is part of a broader economic transformation in Australia driving innovation and change in the way we generate and use energy, reducing our impact on the climate and reducing greenhouse gas emissions over time. Financial markets and services have a critical role in this process by using a carbon price to unlock new sources of investment to deliver a clean energy future.

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Following agreement with the Institute, Navitas Workplace Solutions is now delivering the CMA programs in Australia.

Navitas is an Australian based global education leader providing both pre-university and university programs to more than 80,000 students across a network of over 100 colleges and campuses in 23 countries. Listed on the ASX, Navitas is counted as a top 200 company.

Arrangements have been concluded with one of the Navitas divisions, to offer the CMA Program and the Non Financial Manager Conversion Program to its Australian clientele. This is a significant step forward for the Institute in Australia and represents an exciting channel for attracting new members. Until now growth in Australia was reliant on the level of student intake at those universities offering the two capstone CMA subjects. The Navitas relationship opens the potential for attracting candidates who are already in the workforce and occupy middle and top management positions.

All presenters for CMA subjects will be approved by the Institute and examinations will be held under its jurisdiction to ensure professional standards are maintained.

navitas
Workforce Solutions

Australia's Skilled Occupation List

I am very pleased to report that management accounting has been retained on Australia's Skilled Occupation List (SOL) for the 2012-2013 fiscal year. In support of its submission to the Federal Government outlining reasons for the profession being retained on the SOL, the ICMA commissioned a very comprehensive research paper details of which have been released to members in the 2011 Year Book. We believe that the submissions were taken into consideration and had some influence over the decision.

Unfortunately, this is not the end of the process but merely a minor victory at the start of what will be a lengthy negotiation designed to secure ICMA's appointment as a migration assessment authority for this SOL category.

Preparatory discussions were held last year with officials in the various departments responsible for the appointment. Dialogue was, however, suspended early in 2012 pending publication of the new SOL because lobbying in the absence of confirmation that our profession would be retained on the list was deemed to be a fruitless exercise.

Now that we are once more on the list the next step will be a difficult one. There are already three accredited assessment authorities for this category, and we have been advised unofficially that the appointment of a fourth authority because it is "unusual", may not receive ministerial approval. Accordingly, to receive accreditation, ICMA must either lobby to secure agreement that a fourth authority should be appointed or, failing this, get at least one of the existing appointees to relinquish its role.

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The ICMA is at present taking advice on which path to follow, and it is expected that the campaign will begin sometime in August. Given the sensitivity of the issue we are unable to update members as it progresses, but you will be informed if and when information does become available for release.

I understand that the other issue of concern to members is professional development. On this score I can report that a number of programs are being reviewed and many will receive ICMA accreditation shortly. We are also finalising infrastructure for delivering an internet learning system, and it is hoped that a number of such programs will be available for enrolment early in September. An official release date will be announced when the beta testing now underway is successfully completed.

I am also pleased to report the arrangement with Chintan Bharwada, a former executive officer of the ICMA, to outsource implementation of the social media communications project to his company. Chintan outlines his views for the future on page 15 in this edition of *OnTarget OnLine*.

Finally, we have asked before and we ask once more, PLEASE GIVE US YOUR FEEDBACK. This does not have only to be on issues arising out of the eMag, it could be on any subject related to your membership and your profession. This is your publication so please treat it as such and participate in its development and growth.

Leon Duval

CEO, ICMA

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In this issue we introduce a new series in which we focus on management accounting strategies for the evolving workplace. The following article relates to the HR aspects of Management Control Systems as a model for integrating Generation Y recruits into an organisation.

Preparing young people for the world of work

Ensuring the successful integration of new recruits into the Company

by David Liknaitzky, CEO spiritatwork

[The aim was to **provide** a bridging program that would *prepare* participants to enter into ***corporate*** worklife]

The Need

The Development "Gap"

Young people often enter an organisation with appropriate qualifications, but little work or life experience. Technical, skills and job training will prepare them for worklife to some extent, but without the necessary lifeskills and maturity they are often ill-equipped to deal with the demands of organisational life, and are, therefore, potentially 'set up for failure'. Understanding the organisational culture that they are embedded in is also a key challenge for new employees if they are to find an effective way of relating to others and fulfilling their roles.

Questions often faced by young people on entering an organisation include:

- **Where am I?** What is an organisation? What is this organisation all about? How does it work? What are the requirements of professional behaviour?
- **Who am I?** What is my identity? How can I assert myself and show who I am? What do I value in myself and others?
- **How do I cope?** How can I manage this new step in my life? How can I manage my emotions and build my confidence, maturity and resilience?
- **How do I work with and relate to others constructively?** Who do I report to and interact with? What is expected of me? How can I integrate with my team and play a useful role?
- **How do I act responsibly in all areas of my life?** What are the accepted norms of behaviour? How can I best manage my life and career, and make my contribution to the organisation and the world?
- **Where am I going?** What do I want for myself and my career? What is my direction in life?

In a project run over the last two years and commissioned by a large multi-national oil and gas company, *spiritatwork* custom-designed an integrated program to anticipate, pre-empt and address these questions. In early 2010 the company, which operates in Africa, the Middle East, Australia and the UK, recruited a number of candidates into 'development' positions. These candidates were well qualified but had had minimal work experience. The aim was to provide, alongside all the technical and

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job training they were receiving, a bridging program that would prepare participants to enter proactively, creatively and effectively into corporate worklife. A further aim was to grow a pool of skills for the company, and also, from a corporate social investment perspective, to contribute to developing a skills pool in the broader market by developing people and making them marketable.

The intervention: Elements of the program

The integrated program includes a Lifeskills program, Learning Journeys, Action Learning with workplace action plans, Coaching and follow up support through Mentoring

Lifeskills Program

Maslow's well known hierarchy of human needs relates human motivation to the satisfaction of needs. When basic physical requirements, including the need for food, water, sleep, shelter and warmth are met, people move on to the next level of needs, which are for safety and security. Once satisfied, this is met by the needs for friendship and social belonging, status and recognition, and ultimately, self-actualisation or self-fulfilment. Maslow's theory has been criticised based on the lack of clear empirical evidence of a hierarchy of needs. Nonetheless, clearly they do exist and they affect human behaviour. Corresponding with Maslow's list of needs, I have identified imperatives for inner development. Unlike Maslow's needs, which to a large extent rely on factors outside the person for fulfilment, these **personal development imperatives** put the developmental challenge and the locus of control firmly within the person.

Maslow's hierarchy of needs	*Personal development imperatives*
Self actualisation	Self actualisation
To be recognised and esteemed by others	Self esteem, self confidence, self belief, optimism and positivity
A sense of social belonging	Emotional maturity
Security	Inner authority and centredness
Basic biological needs	Sense of well-being and vitality

Program objectives:

- To orientate new employees to the world of work and the organisation's culture and to give them the necessary coping and lifeskills to succeed in a professional environment
- To empower participants to build the above-mentioned personal development imperatives and to overcome inner hindrances
- To motivate participants to take charge of their lives, and in particular, to take their next steps towards creatively advancing their careers

Program content: Seven modules provide a comprehensive approach to developing the understanding, attitudes and skills necessary to conduct oneself in the workplace and in life with self-knowledge, confidence, responsibility and maturity. Each module takes place over three to four days and incorporates a relevant Learning Journey connected to the module theme. Modules are scheduled at regular intervals.

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Facilitation/learning style: The style of the whole program is highly participative, experiential, and interactive. Instead of lecturing, facilitators involve participants in learning activities, and then, together with participants, draw out the learning from the activity and the wider implications for them. Participants are encouraged to gain self-knowledge, think and judge for themselves, develop confidence in all things and to take responsibility for their actions. A variety of methodologies and media are used to facilitate learning and development including input from the facilitators, dialogue, group exercises, games, artistic/creative activities, observation and feedback, introspection and practical assignments. While participants are challenged to take their learning process seriously, a strong element of lightness and fun is also injected into the program.

Program outline:

Module 1: Teamwork and Co-operation

Participants explore co-operative ways of working together and supporting each other, group dynamics and creative group discussion, decision making and problem solving.

Module 2: Organisational Mapping

The module deals with basic skills for conducting oneself in a business environment, the requirements of professional behaviour, and understanding the organisation's culture. Other topics include communication in the office and how to conduct oneself in meetings. Organisation Mapping also involves researching and documenting the organisation's structure and operation.

Module 3: Effective and Fulfilling Relationships

Participants learn listening skills, overcoming mindsets and stereotypes, overcoming communication blocks and developing tolerance and empathy for others. Other topics include giving and receiving feedback, dealing with criticism, building respect and trust and diversity issues.

Module 4: Developing Emotional Maturity

Participants explore how to deal with difficult emotions, to handle stress and conflict and to build inner resilience. Coping with transitions in life is also dealt with. The key focus is developing emotional maturity and achieving emotional balance.

Module 5: Building Confidence

In this module, participants focus on how to develop a strong sense of identity as the foundation for building self-esteem, self-confidence and assertiveness. Public speaking and presentation skills are practised.

Module 6: Taking Responsibility

Participants work to overcome the 'victim mentality' and blaming mindset and to take responsibility for their self-development and lifelong learning, their relationships and becoming dependable work colleagues. Ethics, honesty and integrity are also dealt with.

Module 7: Life Planning

The module enables participants to understand their life path up to now, take stock of where they are and get in touch with their aspirations, potentials and limitations as the foundation for making informed choices about their future direction.

Learning Journeys

Before going on a Learning Journey, participants formulate their research questions related to the gaps in their own knowledge and experience. These gaps could relate to their own self-development or issues relevant to their specific work role as well as to more general questions around management, leadership, motivation, and so on. The Learning Journey is customised so

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that the delegate can explore his / her questions in a different context, e.g. through visits to other companies or organisations to discuss best practice, engage in dialogue or observe how different organisations apply different principles. The aim is to:

- challenge participants to open their minds, think creatively, and question their assumptions about themselves and others, their work and the world
- provide opportunities for delegates to engage with a range of challenging social, economic and cultural realities
- foster personal growth and learning

Learning Journeys are a uniquely powerful approach to Personal Development. Learning and growth is facilitated through directly encountering and experiencing diverse philosophies, attitudes and approaches to life and work. Participants see themselves mirrored in these experiences and are encouraged to meaningfully integrate the new learning into their work and personal lives.

Workplace Action Plans and Action Learning

The program encourages participants to focuses on addressing key issues in their own organisations. After each module, participants create their own assignments for application in the workplace. Action Learning brings together small groups of participants to explore ways of bringing about change by sharing assignments, supporting each other, and reflecting and learning together.

Coaching

Coaching provides dedicated time in which the participant can explore the challenges and complexities of life and work and find ways forward that are creative, helpful and developmental. A fundamental principle of coaching is **self-determination**. Coaching is not advice nor is it therapy. It is a structured, guided process that helps the person develop the necessary insight, knowledge and skills to take confident responsibility for his or her own life decisions. Coaching can have different focuses, including Performance and skills coaching, Career transition coaching, Conflict coaching and Personal transformation coaching.

Follow-up support

Each candidate chooses a **mentor**. Mentors undergo an initial one-day orientation and training, and participate in subsequent half-day workshops every quarter for the program's duration. Mentoring establishes a helping relationship between a younger person and an unrelated, relatively older, more experienced person who can support the mentee's learning and development and increase the capacity of the young person to connect with positive networks at work and beyond.

Benefits of the program

The program was successfully implemented. and most of the candidates were offered fulltime employment in the company. Those not deemed suitable left with a range of experiences, skills and knowledge that will significantly enhance their job marketability. Company benefits were that the new recruits had undergone a comprehensive induction, training, orientation and development program that enabled them to fit successfully into the company and its culture and to be highly effective in their roles. The program has become an ongoing training program for new recruits and will be rolled out through all divisions of the company.

David Liknaitzky runs *spiritatwork*, a consultancy focusing on individual, team and organisation development. Over many years, he has undertaken numerous consulting projects across a wide range of organisations in the private, public and non-profit sectors. Many of these assignments were in the context of company-wide change processes, involving development, transformation and change on all levels of the organisation. David is also the founder of Youth Empowerment Network (YEN), a non-profit organization, through which thousands of young people in South Africa, Brazil and now in Australia, have developed the skills to become creative and responsible contributors to society. In recognition of his work as a social entrepreneur, David was elected as a Fellow of Ashoka: Innovators for the Public in 2000. David can be contacted at dliknaitzky@gmail.com or 0415-529-120.

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Cost Volume Profit Analysis

by John Donald, Lecturer, School of Accounting, Economics and Finance, Deakin University, Australia

As mentioned in the last set of Student Notes, the ability to categorise costs as either fixed or variable and to estimate the fixed and variable components of mixed costs, is important because it enables the use of decision making techniques like cost volume profit analysis (CVP analysis). This is essentially a short-term (or tactical) decision tool which shows the effect on profit of changes in costs, prices and sales volume in units. We cannot estimate accurately the impact of these changes unless we know which costs are fixed and which are variable. A manager may want the answers to questions such as 'what would be the impact on monthly profit of an increase in production and sales of 100 units per month, what increase in sales volume is required to cover the additional fixed costs of our new advertising campaign' or 'how many units of product X do we need to make and sell in order for it to be profitable?' These and other questions can be answered using CVP analysis.

CVP analysis is sometimes called break-even analysis because it allows the user to calculate a break-even point. This is the level of production and sales at which a product or service stops losing money and becomes profitable. At the break-even point profit equals zero. Once we know the break-even point we can assess the financial viability of a new product or analyse our current operating performance.

Assumptions Underlying CVP Analysis

A number of basic assumptions underlie CVP analysis and these need to be kept in mind when assessing its usefulness in a particular decision making situation. The assumptions are:

1. The behaviour of sales revenue and costs is linear throughout the relevant range of activity.

In other words, we assume that selling price per unit, variable cost per unit and the total amount of fixed costs will remain constant during the time period under consideration.

2. The number of units sold is equal to the number of units produced during each period i.e. all the units produced are sold.

3. Variable costs change in total in direct proportion to the level of activity.

4. All costs can be divided into fixed and variable elements.

5. Labour productivity, production technology and market conditions do not change.

6. In multiproduct firms, the sales mix remains constant i.e. the number of units of each product sold will remain a constant percentage of the total number of all the units sold in each period (for all products).

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CVP analysis is a simplified model of reality, however, in many cases the estimates that it produces are accurate enough to be quite useful. The main danger is using it when a large change in the level of activity will take operations outside the usual or relevant range, so that the CVP assumptions may no longer be valid.

Contribution Income Statement

The starting point for a CVP analysis is the preparation of a contribution format income statement. This groups together all the variable costs and all the fixed costs for a certain period. Most importantly, it shows the amount of contribution margin as an intermediate figure instead of the gross profit amount shown on a conventional income statement. Contribution margin is the amount of revenue remaining after deducting all variable costs. It can be stated both as a total amount and on a per unit basis as shown in Illustration 1. below.

WIDMARK CLOCK CO.
Contribution Income Statement
For the Month of July

	Total	Per Unit
Sales (500 clocks)	$250,000	$ 500
Less: variable costs	150,000	300
Contribution margin	100,000	$ 200
Less: fixed costs	80,000	
Profit before tax	$ 20,000	

Illustration 1. A contribution income statement

CVP analysis is a simplified model of reality, **however** the estimates that it produces are ***accurate*** enough to be quite useful

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Using the **CMR** enables managers to ***quickly*** determine the effect on profit from any *planned* change in sales

Contribution Margin per Unit

The income statement for the Widmark Clock Company shows that contribution margin per unit ($200) is equal to the selling price per unit ($500) less the variable cost per unit ($300). We will assume that the term cost includes all costs and expenses pertaining to the production and sale of the product. Hence variable costs include variable manufacturing costs plus variable selling and administrative expenses. We can see that for every clock that Widmark makes and sells it will have $200 to cover fixed costs and contribute towards profit. Because total fixed costs are $80, 000 per month, Widmark must generate at least $80, 000 of contribution margin each month before it starts earning any profit. Its monthly sales must exceed 400 clocks ($80 000 ÷ $200). This is Widmark's break-even point as shown in Illustration 2. below. If Widmark sold 401 clocks in a month its profit before tax for that month would be $200. Once the sales volume of a product passes the break-even point, contribution margin per unit is equal to profit before tax per unit.

WIDMARK CLOCK CO.
Contribution Income Statement
For the Month of August

	Total	Per Unit
Sales (400 clocks)	$200,000	$ 500
Less: variable costs	120,000	300
Contribution margin	80,000	$ 200
Less: fixed costs	80,000	
Profit before tax	$ 0	

Illustration 2. A contribution income statement at the break-even point

Contribution Margin Ratio

The contribution margin ratio (CMR) is the proportion of the selling price per unit represented by contribution margin per unit. For example, if the selling price is $10 per unit and this yields $8.50 in contribution margin, the CMR is 85 per cent or 0.85. Alternatively, the CMR is the proportion of total sales revenue represented by the total contribution margin amount. For the Widmark Clock Company the CMR is $200 ÷ $500 or 40 per cent. Out of each sales dollar 40 cents is available to apply to fixed costs and to contribute to profit. If Widmark's sales revenue increased by $20, 000 from $200, 000 in August to $220, 000 in September its profit before tax would increase from zero to $8 000 ($20 000 x 40 per cent).

Using the CMR enables managers to quickly determine the effect on profit from any planned change in sales provided that the change does not take the level of activity outside the relevant range. If this occurs, total fixed costs and/or variable cost per unit may change. The relevant range is an important limitation on CVP analysis. If we were considering an infinitely large range of output and sales, starting from zero, all costs would tend to be variable. The assumptions that total fixed costs will remain constant and that variable cost per unit does not change are only valid within the normal or relevant range.

Note that the contribution margin ratio plus the variable cost ratio (total variable costs ÷ sales revenue) equals 100 per cent i.e. CMR + VCR = 100 per cent (or 1.0)

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Calculating the Break-Even Point

The break-even point can be calculated in three ways:

1. The graphical method
2. The equation method
3. The contribution margin method

1. The Graphical Method

A CVP graph enables us to visualise the relationships between sales revenue, total cost, the number of units sold and profit. Illustration 3. below shows a CVP graph based on the revenue and cost information for the Widmark Clock Company. Sales volume is recorded along the horizontal axis while sales revenue and total costs are shown on the vertical axis. The sales revenue (SR) line starts at the origin (where the two axes intersect) and passes through the break-even point which, as we saw in Illustration 2., is 400 units or $200, 000 of sales revenue. For every clock that Widmark sells, revenue increases by the selling price per unit of $500 which we assume remains constant. This is the gradient or slope of the sales revenue line.

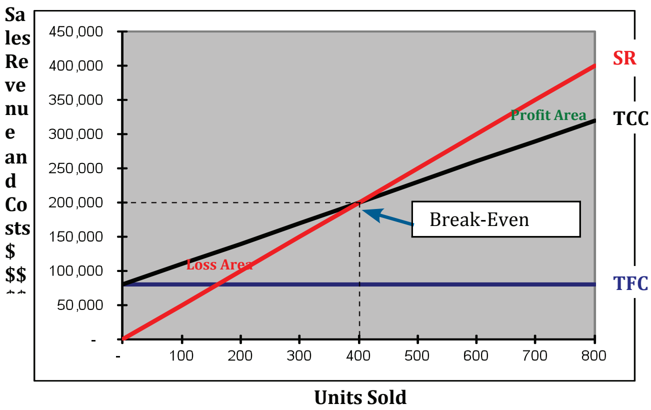

Illustration 3. The CVP graph for the Widmark Clock Company

The amount of total fixed costs is depicted by a horizontal line (TFC) which starts at a point on the vertical axis representing $80, 000. We assume that the relevant range extends from zero to at least 800 units so fixed costs remain unchanged in total. The total cost (TC) line starts at the same point as the TFC line and has a uniform gradient equal to variable cost per unit ($300). On the graph, the amount of total variable cost is represented by the vertical distance between the total cost line and the total fixed cost line. Profit at any level of activity is the difference between sales revenue and total costs, and where the SR line crosses the TC line profit equals zero. This is the break-even point.

2. The Equation Method

This method is based on the following equation:

Sales revenue = Variable costs + Fixed costs + Profit

Because at the break-even point profit is zero, break-even occurs when sales revenue is exactly equal to variable costs plus fixed costs. The break-even point in units can be calculated by inserting in the equation the amounts for selling price per unit, variable cost per unit and total fixed costs. So for the Widmark Clock Company:

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[A CVP graph **enables** us to visualise the relationships ***between*** sales revenue, *total* cost, the number of units sold and profit]

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Sales revenue = Variable costs + Fixed costs + Profit

$500Q = $300Q + $80,000 + $0

Where:

Q = Number of clocks sold

$500 = Selling price per unit

$300 = Variable cost per unit

$80,000 = Total fixed costs

Now solve for the value of Q:

$500Q = $300Q + $80,000 + $0

$200Q = $80,000

Q = $80,000 ÷ $200

Q = 400 clocks

This is the break-even point in terms of units sold. To find the sales revenue needed to break-even, we multiply the number of units sold at the break-even point by the selling price per unit:

400 x $500 = $200, 000 (break-even sales revenue)

3. The Contribution Margin Method

The third method of calculating the break-even point is derived from the equation method described above. When we solved for the value of Q, the last step involved dividing total fixed costs by the contribution margin of $200 per unit to give break-even units (Q = 400). This simple calculation can be expressed thus:

Break-even point in units sold = Total fixed costs / Contribution margin per unit

400 = $80,000 ÷ $200

To calculate the amount of break-even sales revenue we use the contribution margin ratio instead of contribution margin per unit:

Break-even point in dollars of sales revenue = Total fixed costs / Contribution margin ratio

$200, 000 = $80,000 ÷ 0.4

The contribution margin method can be extended to give the number of sales units or sales dollars required to reach a certain target profit figure simply by adding the target profit to the total fixed cost amount in the break-even formula. Note that the target profit figure we must use is the profit required before tax has been deducted. If you are given a target profit figure after tax, dividing it by (1 – the tax rate) will convert it into the larger before tax amount:

Target profit before tax = (target profit after tax) ÷ (1 – t)

where t denotes the income tax rate.

CVP Analysis with Multiple Products

So far we have considered situations involving single products. However, the reality is that there are very few single product organisations. CVP analysis can be adapted for situations where there is more than one product being made and sold. For example, assume that the Contex Calculator Company produces two types of calculator: Model A and Model B. Their details are as follows:

	Model A	Model B
Selling Price Per Unit	$30	$50
Variable Cost per Unit	15	20
Contribution Margin Per Unit	$15	$30
Sales Mix	2	1

Contex typically sells two Model A calculators for each Model B that is sold. The sales mix is, therefore, two to one. Assume that Contex's total fixed costs are $100, 000.

We can now calculate the weighted average contribution margin (WACM) per unit using the sales mix numbers as weights. Since two Model As are sold for each Model B, the contribution margin of A is multiplied by 2, and the contribution margin of B is multiplied by 1. The sum of the answers is then divided by 3 (the sum of the weights) to give the weighted average contribution margin per unit of $20.

WACM per unit = ($15 x 2) + ($30 x 1) / 3

= $20

The weighted average contribution margin per unit can now be used to calculate the break-even point in units:

Break-even sales in units = Total fixed costs / WACM per unit

= $100, 000 ÷ $20

= 5, 000

These 5, 000 units would consist of 3, 333 units of Model A (two-thirds of 5, 000) and 1, 667 units of Model B (one-third of 5, 000).

Check: TCM = (3, 333 x $15) + (1, 667 x $30) = $100, 005 = TFC ($5 rounding error)

Although the method we have just used is appropriate for situations where the sales mix is constant, in reality a constant sales mix is very rare. If a firm's sales mix does vary over time, one of the main assumptions underlying CVP analysis becomes invalid and the results it produces become less reliable.

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Social Media Project

The ICMA recently engaged Chintan Bharwada, a marketing consultant who specialises in online communications, to advise the council on its social media project. Chintan will submit a number of recommendations to the council over coming months and these will be shared with the ICMA membership through On Target Online.

In this brief article Chintan shares his thoughts for the future of OnTarget. ICMA policy has always been to seek the views of its membership before launching any major policy initiatives. If you would like to contribute to this debate please send your thoughts to the editor ontarget@cwawebline.org who will publish readers' opinions in the next issue.

I am online half the day. It just makes sense for me to stop at a few websites and get the updates and news instead of subscribing to magazines that that will pile up unread. To be honest, I have not purchased a newspaper or magazine regularly in the last three years so it makes sense to get my industry updates online.

Why is this important? Well, we need to change and adapt with the times. Our publications were circulated in print format; now we have shifted to semi online PDF format. This is great, but what we need is a true online presence to better engage with our membership community.

In order to do this *On Target* must become a true online digital magazine for management accounting, one that is updated on a daily basis. The digital *On Target* would link also to all the social media channels giving our members a choice to consume knowledge at their convenience and by their preferred method.

I have listed some of the key benefits for going digital:

- Trends and knowledge base for the profession constantly updated and communicated online
- Always online and available
- Smart phone and tablet ready
- Integration with social media
- Globally accessible jobs board
- Potential for international branches to share country specific news
- Opportunity to build communities within the global community
- Ability for members to share success stories with quick turnaround times
- New methods of communication available via video and audio

[*On Target* going **digital** and totally breaking the print barrier? read more]

About Chintan Bharwada

Chintan Bharwada is a marketing expert specialising in customer acquisition, retention, engagement and loyalty management.

In addition to founding and serving as Editor of Loyalty and Customers, Chintan works in the marketing industry to pay the bills. With more than 15 years of experience in these areas, Chintan is also researching ideas for his first book on customer retention strategies.

Through his work, Chintan engages with a wide range of organizations in the marketing arena, designing and implementing strategic marketing plans, customer/member contact frameworks, retention incentive programs, customer lifecycle management plans, and improving marketing reporting systems. Chintan has written marketing related articles for many publications, including Yahoo7 Kochie's Business Builders, MarketingProfs, Anthill Online and Focus.com.

Council Notes

Editor's Response

As a journalist of some 30 years standing with experience in print, television, radio and online now teaching journalism to the new digitally engaged generation at Monash University, your editor feels it is incumbent upon her to enter this debate, not in opposition to the proposed reinvention of On Target Online, but to raise questions about its necessity and indeed, viability.

It should be understood from the outset that *On Target Online* is a "true online presence". There is no such thing as being "semi online" or indeed, semi pregnant. You either are or you aren't, and we have been since February 2011 when *On Target Online* replaced an old fashioned, parochial print newsletter and a commercial magazine with no specific management accounting content. This was achieved it should be noted, with some considerable financial saving to the Institute. The result is a professionally produced online publication accessed by computer, smart phone or tablet.

The eMag is a high level publication which addresses industry issues and trends in an evolutionary (that is, forever updating sections and developing relevant series), not revolutionary sense in keeping with the sorts of informative and credible online publications generated by most credible professional organisations. It is a serious, well researched, analytical and informative read generated by the parent body for a global membership, thus defining its content and reach. It provides profile beyond the profession and is well received by it with a response (i.e. opened and read) level well above the average.

While fully embracing the power of the internet it is difficult to understand what particular information is now lacking and of such urgency that daily updates are required. Management accounting, while evolving, changing and gaining in significance, is not a profession caught up in the daily churn of breaking news, professional upheaval and changing practices and processes, so what exactly is the need for daily communication – and about what?

Updates could and probably should be posted on a Blog or via the website but by whom (if regular it would be labour intensive and costly), how often and providing what content? Is there really enough going on in the profession whether in our region or beyond to sustain intense and regular effort? Management accounting Google alerts (or lack thereof) supports this view. It is interactivity moreover that keeps such endeavours alive, fresh and interesting, and this assumes a large, highly responsive and engaged membership. More to the point, do members want it? Where and what is the demand?

We have already an under- used LinkedIn management accounting group. Facebook is a social network, not orientated to work relations and not really in keeping with the profile of a professional organisation. Branches have their own websites though which they communicate on local issues and at least one branch mentions using online networks to communicate amongst members; there may well be room for developing such initiatives. (See Member of the Month page16)

Perhaps we should be talking about membership growth and retention and marketing initiatives, especially around the stillborn LinkedIn group. But that is a separate project from reinventing *On Target Online*.

Jan McGuinness

Editor

Member of the Month

Agus Susanto, 44, is President of the Indonesian branch and intent on developing the organisation's profile and membership. He holds a Bachelor of Economics from Tarumanagara University and is the Finance and Accounting Manager of PT. Korindah (Jakarta).

Q. What is the business of PT. Royal Korindah?

A. PT. Royal Korindah began in 1968 as a one-man operation making and delivering custom-ordered eyelashes to local beauty salons and grew steadily into the world's leading manufacturer of false eyelashes producing 36 million pairs annually. Today, our factory employs 4,300 people and is the single biggest employer and economic contributor in the rural town of Purbalingga. The company has won awards and certifications for its quality and environmental management systems, its zero accident record and in 2009 was acknowledged as Indonesia's best exporter.

The company motto is: *Provide the best and customers will come; take care of our employees and they will stay.* And stay they do; many of our employees have been with us since the factory's early days.

Q. Please describe your role

A. I have been at PT. Royal Korindah for almost 10 years and now manage the overall financial plans and accounting practices overseeing treasury, accounting, budget, tax and audit activities for the organisation and its subsidiaries.

Q. How did you become involved in ICMA ?

A. I took a CMA preparatory program at a business school in Jakarta seven years ago. In June 2009 I attended an informal gathering with more than 30 CMAs and Prof Janek Ratnatunga when approval to establish ICMA Indonesia was granted. The first President, Mr Herwan Ng and Vice President, Mrs Paulina Permatasari were appointed by Prof Janek Ratnatunga and I became a committee member. In 2010 I was elected President of ICMA Indonesia Branch at our second annual gathering.

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Q. How important has membership been in terms of your career and development?

A. It has been of the utmost importance. I am proud to be CMA credentialed. It means being internationally recognized as a professional in management accounting having improved my skills and updated my role. It has contributed to my successful performance in the organization and provided a structured means to address performance gaps early on so that my initial reports clarify what must be done to raise performance to the agreed standard.

Q. What initiatives and activities have you implemented to build up the branch and increase ICMA profile?

A. The ICMA members are our most important asset so we really appreciate and care about them not just in words but by actions. Relationships are maintained outside office hours especially at weekends when members meet at cafes to chat, brainstorm and discuss issues. We hold round table discussions based on the CPD model. Our first discussion in August, 2010 was on Cost Methods (Time Driven – Activity Based Costing) and the second in July 2011 was on 2012 IFRS Convergence Program In Indonesia. We have a network channel on Facebook (under construction) and use LinkedIn and Blackberry Group for chatting and updating information with each other. We maintain relations and cooperation with the CMA Program Provider Institution and promote the CMA Program to the corporate sector. We plan to approach the government, local associations and develop a Business Modelling Program.

Q. What is the importance and future of management accounting from your perspective?

A. I believe that the current changes in management accounting are going to develop even further in the future. Integration, awareness of the problems faced by divisions and the supply of non-financial data to aid HR department decisions will become even more important judging by discussions within my company. While HR is happy with the existing contribution from the management accounting function it was pointed out that management accountants should be involved in 'what if' (sensitivity) analysis in the future enacting a more integrated role and becoming better information providers. The Business Planning and Integration Department suggested that in the future the supply of information would be largely automatic and the management accountant would act even more as a consultant to various functions. The Manpower Planner suggested that management accountants would be more integrated into the various divisions, commenting as follows: "We do have a link with SHQ (Super High Quality) now, and the management accountant's role is Business Planning Process. It is an integrated role, we used to have barriers before, we used to talk about doing this and that, and the person preparing the plan had no clue. Now we talk openly, and there is no barrier, we have built good relationships with finance people. In the planning process, we set the figures and the management accountants cannot set the figures until we clear them at our end. We need to get compromise and it seems to be working out fine."

In each issue *On Target Online* turns the spotlight on someone of interest and achievement in our ranks. All branches are invited to nominate members they consider to be outstanding management accountants who have contributed both to their profession and the wider community. Nominations should be accompanied by a brief outline of why the nomination is significant and contact details for the nominee. Please address contributions to the editor ontarget@cmawebline.org

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