





3.2b	3.3a
Different costs for different purposes	
For decision-making more accurate product costs are required.	
 Different cost information is required for inventory valuation and decision- making but most companies use a single database and extract different costs for different purposes. 	
 Companies can choose to maintain their database using costing systems that vary on a continuum from simplistic to sophisticated (the choice should be based on costs versus benefits criteria – See Figure 3.2 on sheet 3). 	
Use with Management and Cost Accounting 7e by Colin Drury ISBN 9781844805662 © 2008 Colin Drury	





3.4a Assigning indirect costs using blan	ket overhead rates
 Some firms use a single overhead rate (i organization as a whole. 	e.blanket or plant-wide) for the
Example Total overheads Direct labour (or machine hours) Overhead rate	= £900 000 = 60 000 = £15 per hour
Use with Management and Co by Colin Drury ISBN 9781 © 2008 Colin Dru	st Accounting 7e 844805662 Iry

			h	g last	
 Assume that the company analysed as follows: 	/ has 3 sepa	arate departm	ents and cos	sts and hours are	
1.2000.000	Dept. A	Dept. B	Dept. C	Total	
Overheads	£200 000	£600 000	£100.000	£900.000	
Direct labour hours	20 000	20 000	20 000	60 000	
Overhead rate per DLH	£10	£30	1.5	£15	
Product Z requires 20 hou	ırs (all in dep	partment C)			
Blanket overhead rat Separate departmenta	e charge 11 overhead	i ra t e	=£300 (20	$hrs \times £15)$	
charge		1	=£100 (20)	hrs \times £5)	
Separate departmental rate	s should be	used since p	product Z onl	y consumes	



3.5

Cost centre overhead rates



 Where a department contains a number of different centres (each with significant overhead costs) and products consume overhead costs for each centre in different proportions, separate overhead rates should also be established for each centre within a department.

• The terms cost centres or cost pools are used to describe allocation to which overhead costs are initially assigned.

• Frequently cost centres/cost pools will consist of departments but they can also consist of smaller segments within departments.

Use with Management and Cost Accounting 7e by Colin Drury ISBN 9781844805662 © 2008 Colin Drury

3.6a The two-stage allocation process • To establish departmental or cost centre overhead rates a two-stage allocation procedure is required: Stage 1 – Assign overheads initially to cost centres. Stage 2 – Allocate cost centre overheads to cost objects (e.g.products)using second stage allocation bases/cost drivers. Use with Management and Cost Accounting 7e by Colin Drury ISBN 9781844805662 © 2008 Colin Drury





3.7b	
 Step secon Note either 	es 1 and 2 comprise stage one and steps 3 and 4 relate to the d stage of the two-stage allocation process. e that in the third stage above traditional costing systems mostly use direct labour hours or machine hours as the allocation bases.
	Use with Management and Cost Accounting 7e by Colin Druy ISBN 9781844805662 © 2008 Colin Druy

3.8a				
The a two s follow	annual overhead cost ervice centres (Mate	s for a compriate the second sec	pany which has thre ement and General f	e production centres and factory support) are as
			183	10
	I. R. A. Market Market		(0.)	(2.)
	Machine centrer:	VIVISION V	1.000.000	
	wrachtine centres.	0	1,000,000	
	Associate		1 500 000	
	Materials producement	AF.	1 100 000	
	General factory supp	art	1.480.000	6 050 000
	Indirect materials		1.18000.00000	
	Machine centres:	X	500.000	
		Ŷ	805.000	
	Assembly		105 000	
	Materials procuremen	nt :	0	
	General factory suppo	ert	10.000	1 420 000
	Lighting and heating		500 000	
	Property taxes		1.000.000	
	Insurance of machiner	v	150 000	
	Depreciation of machi	nery	1 500 000	
	Insurance of buildings		250 000	
	Salaries of works mana	gement	800.000	4 200 000 11 700 000
		Use with Mana by Colin D ©	gement and Cost Accounting 7e rury ISBN 9781844805662 2008 Colin Drury	,

Ũ		available		G	6 2.6
	Book value of machinery	Area occupied (sq. mtrs)	Number of employees	Direct labour hours	Machine hours
Machine shop: X	(£) 8 000 000 5 000 000	10 000	300	1 000 000	2 000 000
Assembly	1 000 000	15 000	300	2 000 000	1000000
Maintenance	500.000 15.000.000	50 000	100 1000		
Details of total mate as follows:	erials issues (i.e.	direct and in	direct material	s) to the produc	tion centres are
	£				
Machine shop X	4 000 000				
Machine shop Y	3 000 000				
Assembly	8 000 000				
To allocate the o must prepare an o	verheads liste overhead anal	d above to ysis sheet.	the product	ion and servi	ce centres we

3.9a					6	K)
Item of expenditure	Basis of allocation	Total	Producti Machine centre X	on centres Machine centre Y	Assembly	Service Materials Procurement	centres General factory
		10	(6)	(0)	10	(5)	support (f)
Indirect wage and supervision	Direct	6 080 000	1 000 000	1 000 000	1 500 000	1 100 000	1 480 000
Lighting and heating	Area	500000	100 000	50000	150 000	150 000	50 000
Property taxes	Area	1 003 000	200 000	100 000	300 000	300.000	100 000
Insurance of machinery Demociation of	Book value of machinery Book value	150.000	80 000	50000	10.000	5 000	5 000
machinery Insurance of buildings	of machinery Area	1500000 250000	800 000 50 000	\$00.000 2.5.000	100 000 75 000	50 000 75 000	\$0,000 25,000
Salaries of works management	Number of employees (1)	11 700 000	240.000 2 970.000	2 690 000	240000 2480000	1 760 000	80000 1 800 000
		Use with Mana by Colin D	agement and Co rury ISBN 9781	st Accounting 76 844805662	9		

3.9b					al.	16)
Reallocation of Service centre costs Materials procurement General actory support Machine hours and d Machine hours worke Direct labour hour ov	Value of mate issued Direct labour hours(2) irect labour hours ad rate enhead rate	nials	880.000 450.000 4300.000 2.000.000 £2.15	660.000 450.000 3.800.000 1.000.000 £3.80	220000 360000 2000000 61.80	(1 760 600) -	<u>1 800 0000</u> -
		Use with Mana by Colin D ©	gement and Cos rury ISBN 97818 2008 Colin Drur	t Accounting 7e 44805662 y			



				100
(HIBIT 3.3 An illustr	ation of ce	st assignment with an AB	C system	
(T) Actually	(1) Activity cost £	(2) Activity cost driver	(4) Quantity of activity cost ditiver	(5) Activity cost dmiserate (Cot. 2/Cot.4)
Production activities: Machining: activity centre A Machining: activity centre B Asserticity	2 970 000 2 650 000 2 450 000 .0 140 000	Number of machine hours Number of machine hours Number of direct labour hours	2 000 000 machine-hours 1 000 000 machine hours 2 000 000 direct lab. hours	E1.485 per hour E2.69 per hour E1.24 per hour
Materials procurement activities: Parchasing components Receiving components Disburse materials	960 000 600 000 200 900 1760 900	Number of parchase orders Number of material secents Number of packaction runs	10 000 purchase orders 5 000 receipts 2 000 production runs	E36 per order E120 per receipt E100 per production run
General factory support activities: Production activeduling Set-up machines Quality inspection	1 000 000 600 000 200 000 1 800 000	Number of production runs. Number of set-up hours Number of first item impections	2 000 production name 12 000 set-up hours 1 000 inspections	ESOC per production run ESO per set-up hour E200 per inspection
lotal cost of all manufacturing activities	11,700,000			

	Ce	nputation of product of	site		
(1) Activity	(2) Activity cost anver rate daringd from Col. 5 abons)	(3) Quantity of cost artiver used by 100 units of product A	(4) Ouantity of cost driver used by 200 units of preduct B	(5) Activity cost assigned to product A (Col. 2 × Col. 3)	(6) Activity cost assigned to product B (Coll. 2 × Col. 4)
Machining anxivy centre & Machining anxivy centre & Assembly Hardhaling components Bistarse materials Production tocheduling Berca machinis Costily impedicin Total centre and Costily cost of the cost Unit's produced Diverties cost, per cent Direct cost per cent	Chuide partician 2018 Do In Acta Chuide Dan Acta Chuide Ch	Sol hours 1 000 hours 1 000 hours 1 000 hours 1 000 phours 1 000 phours 5 production runs* 50 per-sphours 1 inspection	2 COB hears 4 COB hears 4 COB hears 1 component 1 component 1 production run 1 production run 1 production run 1 production run 1 second	742:50 2 608:00 96:00 96:00 2 508:00 2 508:00 2 508:00 2 508:00 2 508:00 2 508:00 100 units K105:88 100:00 205:88	2 970 08 10 760.09 4 960.09 96.00 120.09 800.09 800.09 800.09 20.205.09 20.000 20.000 20.000 20.000 20.000 20.000 20.000
Note * Five production runs are recy	ured formachine several unig	ue components before t	hey can be assemble	d into a final produc	t

ad rates			1	1
an are not			6.00	1. 10 M
es are not t osts if actual ad rates tha	used becau annual ra t will occur	ise of: tes are use if actual m	ed. Nonthly ra	tes are used.
ual fixed ov ual activity throughou	erheads t the year	= £24 mi = 2.4 mil as indicate	llion lion hou d below:	rs
Month 1	Month 2	Month 3	Month 4	Annual Total
£2m	£2m	£2m	£2m	£24m
0.2m £10	0.1m €20	0.4m £5	0.3m £6.67	2.4m £10
	ad rates tha ual fixed ov ual activity throughout Month 1 £2m £10	ad rates that will occur ual fixed overheads tal activity throughout the year a Month Month 1 2 $\pounds 2m$ $\pounds 2m$ 0.2m $0.1m\pounds 10 \pounds 20$	ad rates that will occur if actual m ual fixed overheads = £24 mi ial activity = 2.4 mil throughout the year as indicate Month Month Month 1 2 3 £2m £2m £2m 0.2m 0.1m 0.4m £10 £20 £5	ad rates that will occur if actual monthly ra ual fixed overheads = £24 million tal activity = 2.4 million hou throughout the year as indicated below: Month Month Month Month 1 2 3 4 £2m £2m £2m £2m 0.2m 0.1m 0.4m 0.3m £10 £20 £5 £6.67

3.13	
Budgeted overhead rates	de alle
 An estimated normal product cost based on required rather than an actual product cost (w month fluctuations in activity). 	average long-run activity is hich is affected by month-to-
• - therefore use <i>estimates</i> of overhead costs run period (typically one year)to compute ove (i.e.£10 per hour in the above example).	and activity over a long- rhead rates
Use with Management and Cost Acc by Colin Drury ISBN 978184480 © 2008 Colin Drury	ounting 7e 5662

3.14 3.14 Under-and over recovery of overheads Assume actual activity is 900 000 DLH 's and actual overheads are £2 million: •If actual activity or overhead spending is different from that used to compute the estimated overhead rates there will be an under or over = £1.8 million (900 000 × £2) Overhead allocated to products recovery of fixed overheads. Under-recovery = £200 000 Example Assume actual overheads are £1 950 000 and actual activity is 1 million DLH 's: Estimated fixed overheads = £2 million = £2 million Overhead allocated to products Estimated activity = 1 million direct labour hours (1 million x£2) = £200 000 = £2 per DLH Overhead rate Over-recovery • External financial accounting principles (GAAP) require that under/over recoveries are treated as period costs. Use with Management and Cost Accounting 7e by Colin Drury ISBN 9781844805662 © 2008 Colin Drury Use with Management and Cost Accounting 7e by Colin Drury ISBN 9781844805662 © 2008 Colin Drury

