



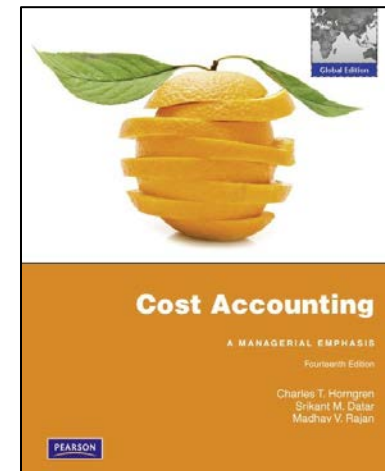
Institute of Accounting, Control  
and Auditing

University of St.Gallen

MAccFin – Master of Arts in Accounting and Finance  
Pflichtwahlfach  
7,116,1.00 Techniken im Management Accounting

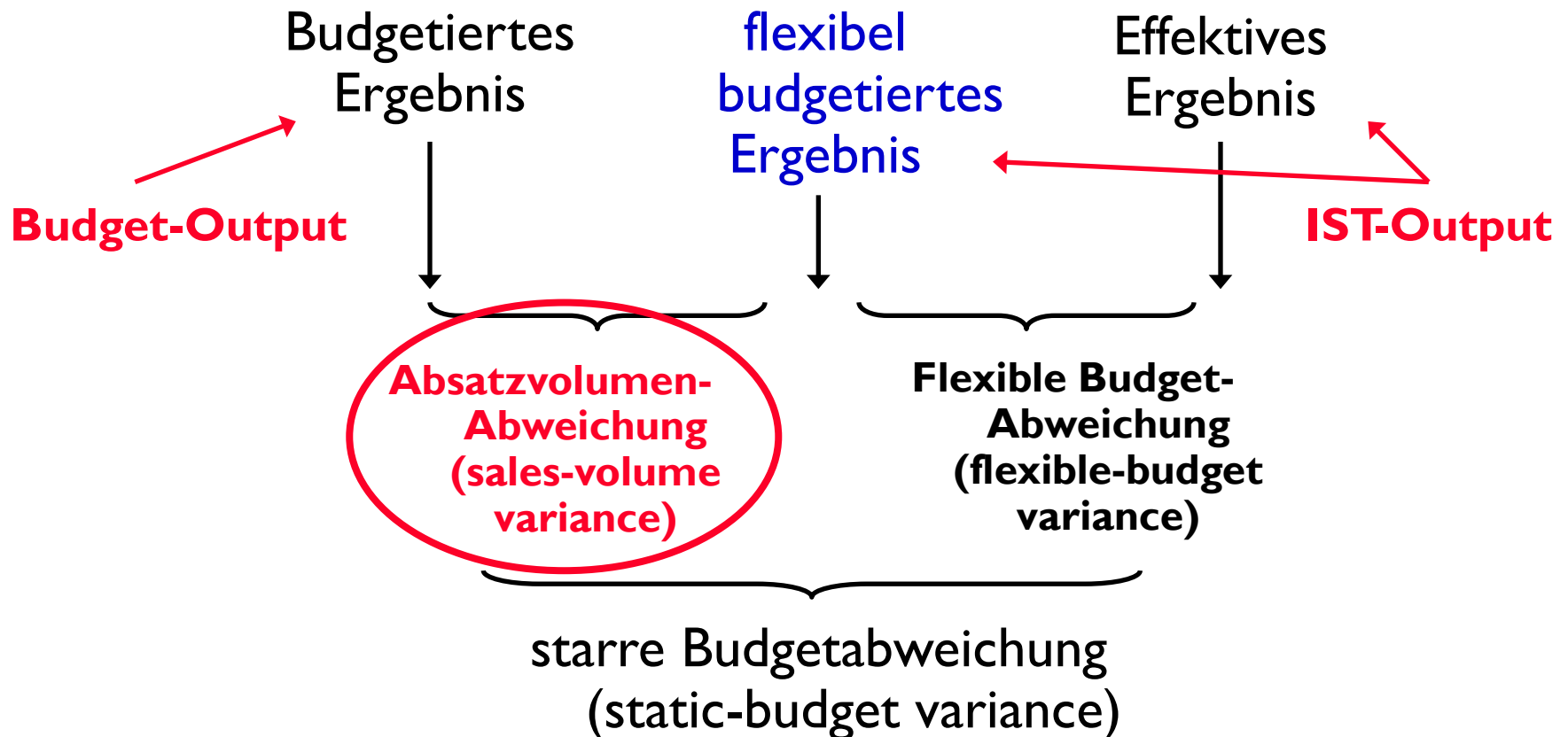
# Flexible Budgets, Overhead Cost Variances, and Management Control Theorie & Cases

HDR, 14ed, Chapter 8



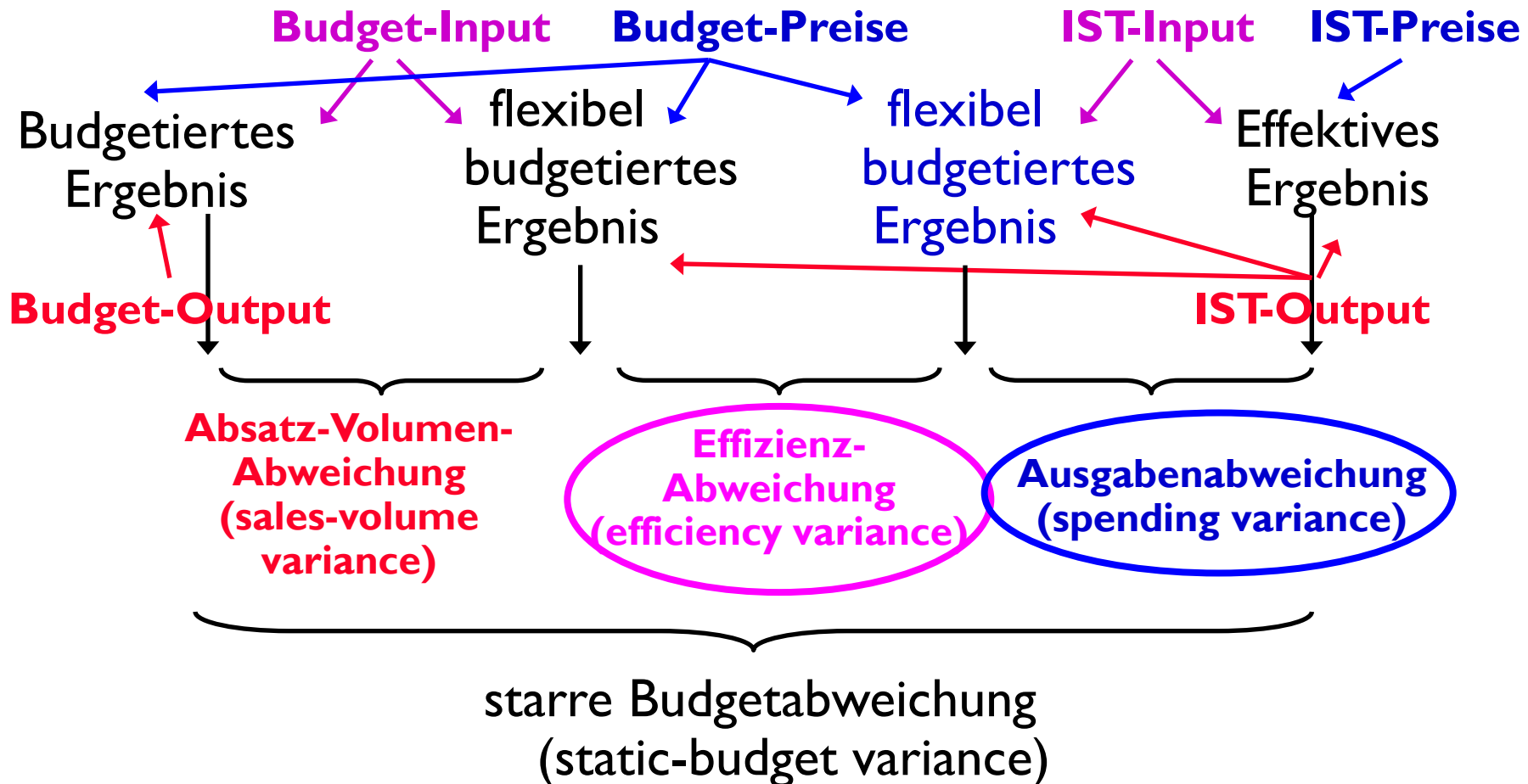
# Analyse mit flexiblem Budget

- ❖ In einem zweiten Schritt wird ein **flexibles, Output-adjustiertes Budget** eingeführt



# Analyse mit Unterteilung von Preis- und Mengenabweichungen

❖ In einem dritten Schritt wird ein **weiteres flexibles Budget** eingeführt



# Beispiel HDR: Webb Company - Ausgangslage

## Webb Company

	<u>Static Budget</u>	<u>Actual Results</u>
<b>Units sold</b>	<b>12'000</b>	<b>10'000</b>
<b>Var. man. cost: Machine-hours allowed per output unit</b>	<b>0.4</b>	
<b>Variable manufacturing cost rate per machine-hour</b>	<b>30.00</b>	<b>29.00</b>
<b>Var. man. cost: Machine-hours allowed / used</b>	<b>4'800</b>	<b>4'500</b>
<b>Variable manufacturing overhead costs per output unit</b>	<b>12.00</b>	
<b>Fixed manufacturing cost rate per machine-hour</b>	<b>57.50</b>	
<b>Fixed manufacturing overhead costs</b>	<b>276'000.00</b>	<b>285'000.00</b>
- <b>Variable manufacturing overhead</b>	<u><b>-144'000.00</b></u>	<u><b>-130'500.00</b></u>
- <b>Fixed manufacturing overhead</b>	<u><b>-276'000.00</b></u>	<u><b>-285'000.00</b></u>

# Beispiel HDR: Webb Company - Lösungsvorschlag für Level 2 Analysis

## Webb Company

	<u>Static Budget</u>	<u>Sales-volume variance</u>	<u>flexible Budget</u>	<u>Flexible-budget variance</u>	<u>Actual Results</u>
Units sold	12'000		10'000		10'000
Var. man. cost: Machine-hours allowed per output unit	0.4		0.4		
Variable manufacturing cost rate per machine-hour	30.00		30.00		29.00
Var. man. cost: Machine-hours allowed / used	4'800		4'000		4'500
Variable manufacturing overhead costs per output unit	12.00				
Fixed manufacturing cost rate per machine-hour	57.50		57.50		
Fixed manufacturing overhead costs	276'000.00		276'000.00		285'000.00

## Webb Company

	<u>Static Budget</u>	<u>Sales-volume variance</u>	<u>flexible Budget</u>	<u>Flexible-budget variance</u>	<u>Actual Results</u>
- Variable manufacturing overhead	-144'000.00	24'000.00	-120'000.00	-10'500.00	-130'500.00
- Fixed manufacturing overhead	-276'000.00	-	-276'000.00	-9'000.00	-285'000.00

Vorzeichen: (+) günstig, (-) ungünstig

# Beispiel HDR: Webb Company - Lösungsvorschlag für Level 3 Analysis

## Webb Company

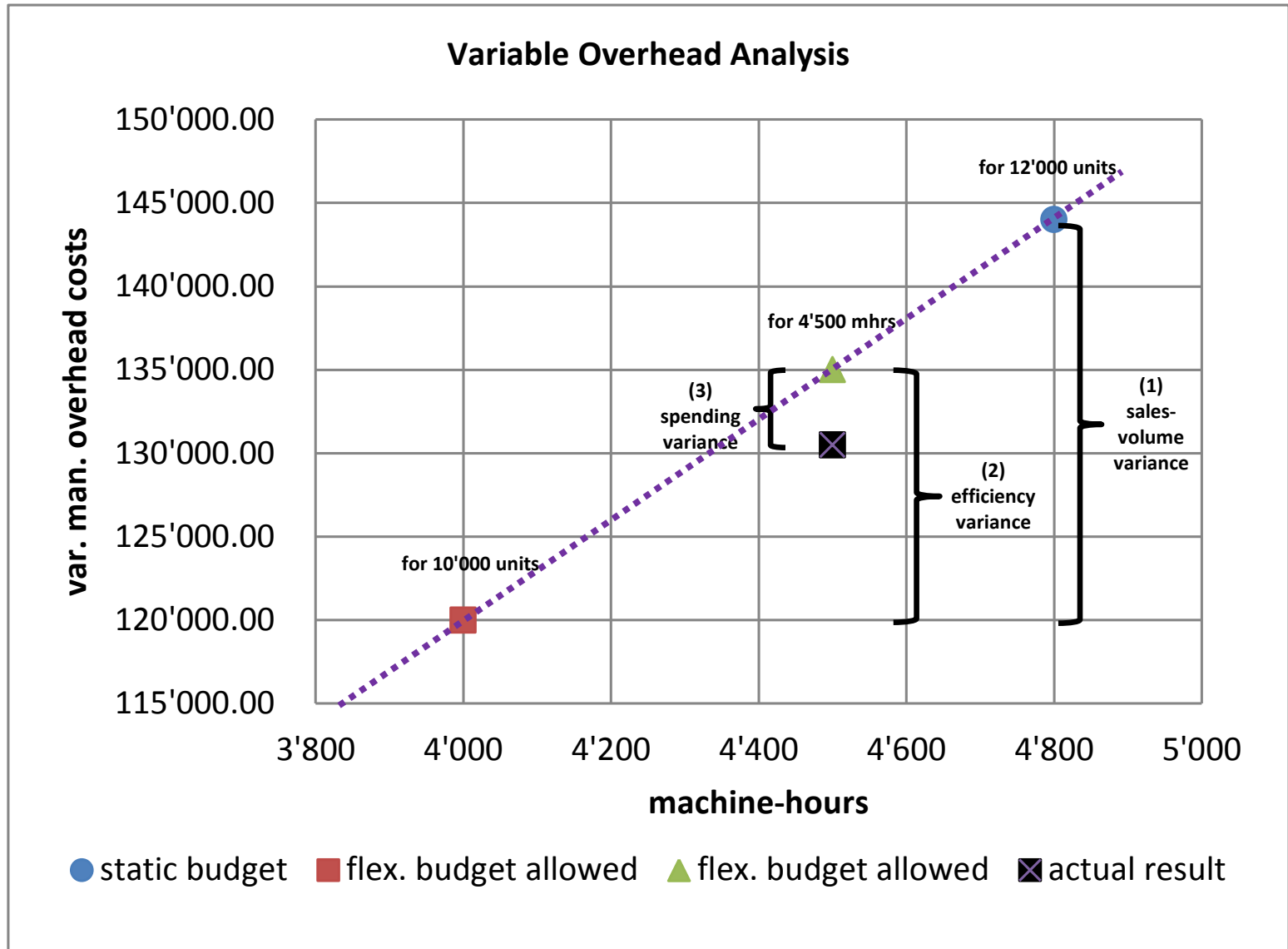
	<u>Static Budget</u>	<u>Sales-volume variance</u>	<u>flexible Budget</u>	<u>Efficiency variance</u>	<u>flexible Budget</u>	<u>Spending variance</u>	<u>Actual Results</u>
Units sold	12'000		10'000		10'000		10'000
Var. man. cost: Machine-hours allowed per output unit	0.4		0.4				
Variable manufacturing cost rate per machine-hour	30.00		30.00		30.00		29.00
Var. man. cost: Machine-hours allowed / used	4'800		4'000		4'500		4'500
Variable manufacturing overhead costs per output unit	12.00						
Fixed manufacturing cost rate per machine-hour	57.50		57.50				
Fixed manufacturing overhead costs	276'000.00		276'000.00		276'000.00		285'000.00

## Webb Company

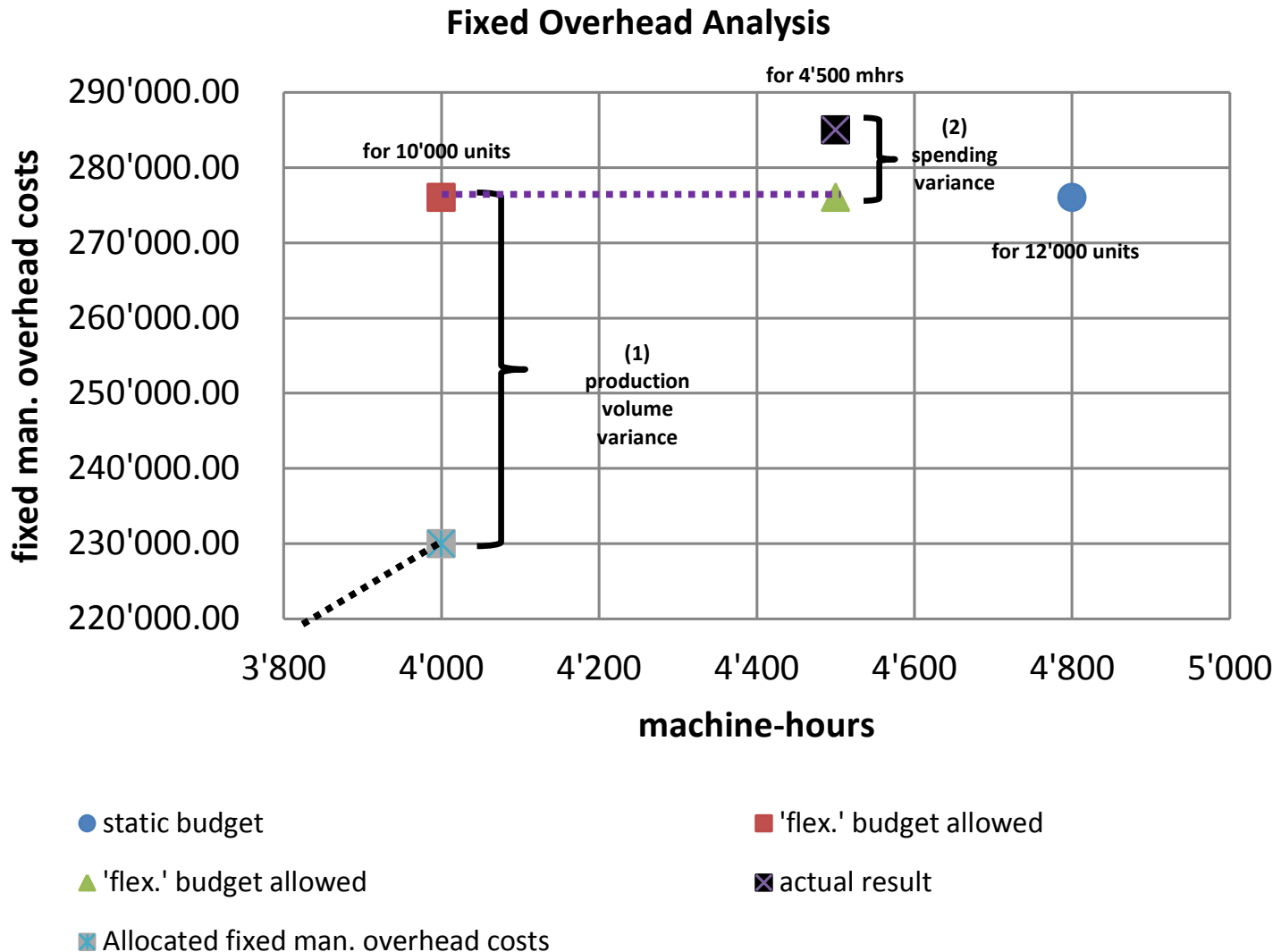
	<u>Static Budget</u>	<u>Sales-volume variance</u>	<u>flexible Budget</u>	<u>Efficiency variance</u>	<u>flexible Budget</u>	<u>Spending variance</u>	<u>Actual Results</u>
- Variable manufacturing overhead	-144'000.00	24'000.00	-120'000.00	-15'000.00	-135'000.00	4'500.00	-130'500.00
- Fixed manufacturing overhead	-276'000.00	-	-276'000.00	-	-276'000.00	-9'000.00	-285'000.00
Allocated Fixed manufacturing overhead			-230'000.00				
Production-volume variance			-46'000.00				

Vorzeichen: (+) günstig, (-) ungünstig

# Beispiel HDR: Webb Company - visulisierte Lösungsvorschlag für Level 3 Analysis - variable Gemeinkosten



# Beispiel HDR: Webb Company - visulisierte Lösungsvorschlag für Level 3 Analysis - fixe (Herstell-)Gemeinkosten

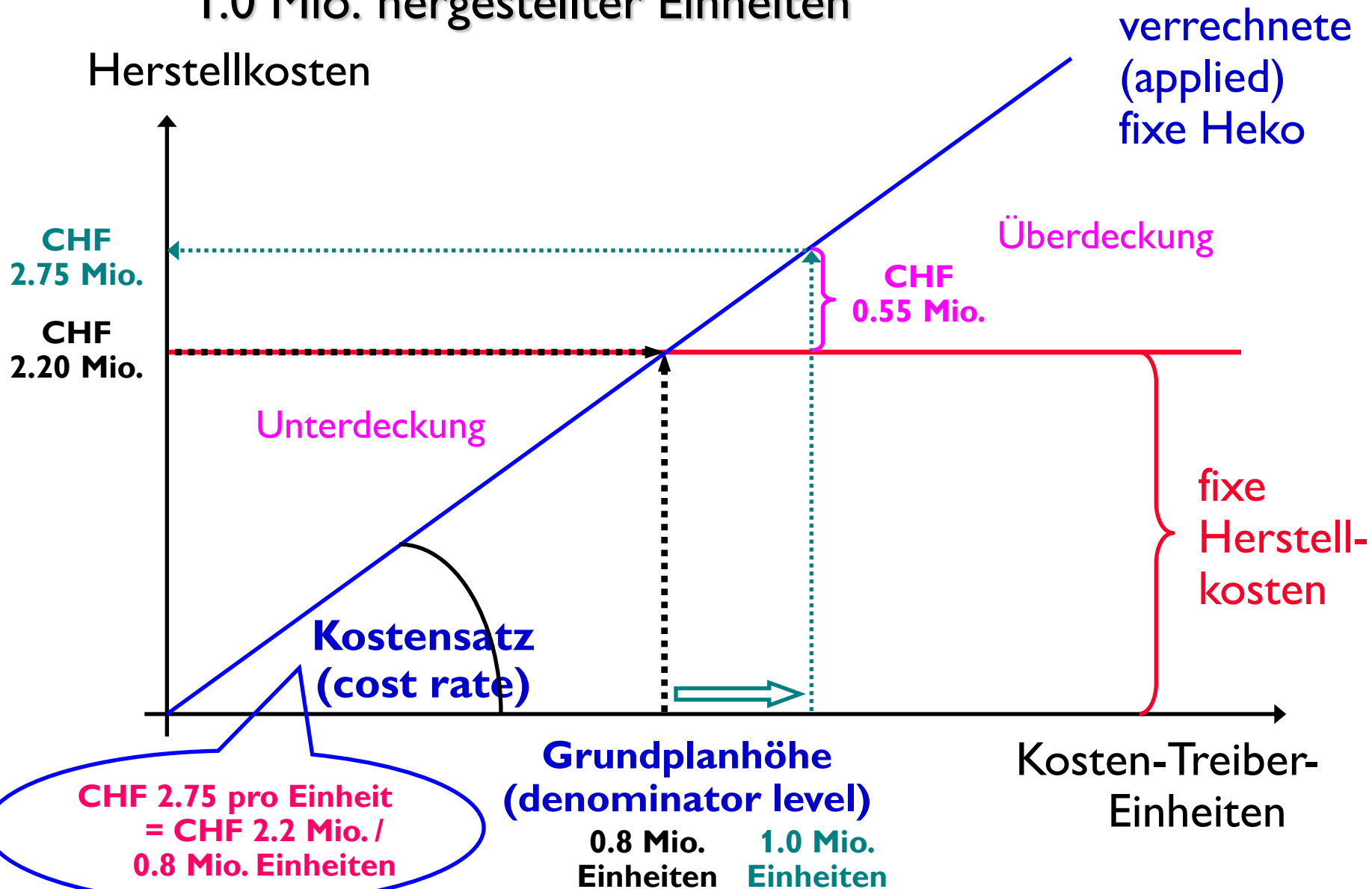




# Problematik: Produktionsvolumen-Abweichung (production-volume variance)

- ❖ Wenn fertig gestellte Produkte ans Lager geliefert werden, müssen diese mit einem Preis (bzw. Kostensatz) versehen werden.
- ❖ Bei den fixen Herstellkosten besteht aber die Problematik, dass diese ja fix sind.
- ❖ Um diese zu «variabilisieren» (d.h. einen Kostensatz pro Stück zu ermitteln), wird die voraussichtliche Grundplanhöhe (denominator level) des Kostentreibers für die Ermittlung des Kostensatzes pro Stück verwendet.
- ❖ Wenn nun effektiv weniger oder mehr als die Grundplanhöhe produziert wird, ergibt sich eine Unter- oder Überdeckung der Verrechnung.
- ❖ Die «Korrektur» dieser Unter- oder Überdeckung heisst 'Produktionsvolumen-Abweichung'.

# Beispiel: Produktionsvolumen-Abweichung bei Grundplanhöhe von 0.8 Mio. Einheiten und effektiv 1.0 Mio. hergestellter Einheiten



# HDR, 14ed, Problem 8-33, Nolton Products

**8-33 Flexible budgets, 4-variance analysis.** (CMA, adapted) Nolton Products uses standard costing. It allocates manufacturing overhead (both variable and fixed) to products on the basis of standard direct manufacturing labor-hours (DLH). Nolton develops its manufacturing overhead rate from the current annual budget. The manufacturing overhead budget for 2012 is based on budgeted output of 720,000 units, requiring 3,600,000 DLH. The company is able to schedule production uniformly throughout the year.

A total of 66,000 output units requiring 315,000 DLH was produced during May 2012. Manufacturing overhead (MOH) costs incurred for May amounted to \$375,000. The actual costs, compared with the annual budget and 1/12 of the annual budget, are as follows:

Annual Manufacturing Overhead Budget 2012					
	Total Amount	Per Output Unit	Per DLH Input Unit	Monthly MOH Budget May 2012	Actual MOH Costs for May 2012
Variable MOH					
Indirect manufacturing labor	\$ 900,000	\$1.25	\$0.25	\$ 75,000	\$ 75,000
Supplies	1,224,000	1.70	0.34	102,000	111,000
Fixed MOH					
Supervision	648,000	0.90	0.18	54,000	51,000
Utilities	540,000	0.75	0.15	45,000	54,000
Depreciation	1,008,000	1.40	0.28	84,000	84,000
Total	<u>\$4,320,000</u>	<u>\$6.00</u>	<u>\$1.20</u>	<u>\$360,000</u>	<u>\$375,000</u>

177'  
186'  
183'  
189'

# HDR, 14ed, Problem 8-33, Nolton Products - Forts.

## ❖ Required

Calculate the following amounts for Nolton Products for May 2012:

1. Total manufacturing overhead costs allocated
2. Variable manufacturing overhead spending variance
3. Fixed manufacturing overhead spending variance
4. Variable manufacturing overhead efficiency variance
5. Production-volume variance

Be sure to identify each variance as favorable (F) or unfavorable (U).

# HDR, 14ed, Problem 8-33, Nolton Products - Lösungsvorschlag

## Nolton Products

	<u>Static Budget</u>	<u>Sales-volume variance</u>	<u>flexible Budget</u>	<u>Flexible-budget variance</u>	<u>Actual Results</u>
Units sold	60'000		66'000		66'000
Var. man. cost: labor-hours allowed per output unit	5.0		5.0		
Variable manufacturing cost rate per labor-hour	0.5900		0.5900		0.5905
Var. man. cost: labor-hours allowed / used	300'000		330'000		315'000
Variable manufacturing overhead costs per output unit	2.95				
Fixed manufacturing cost rate per labor-hour	0.61		0.61		
Fixed manufacturing overhead costs	183'000.00		183'000.00		189'000.00

## Nolton Products

	<u>Static Budget</u>	<u>Sales-volume variance</u>	<u>flexible Budget</u>	<u>Flexible-budget variance</u>	<u>Actual Results</u>
- Variable manufacturing overhead	-177'000.00	-17'700.00	-194'700.00	8'700.00	-186'000.00
- Fixed manufacturing overhead	-183'000.00	-	-183'000.00	-6'000.00	-189'000.00

Vorzeichen: (+) günstig, (-) ungünstig

# HDR, 14ed, Problem 8-33, Nolton Products - Lösungsvorschlag - Forts.

## Nolton Products

	<u>flexible Budget</u>	<u>Efficiency variance</u>	<u>flexible Budget</u>	<u>Spending variance</u>	<u>Actual Results</u>
Units sold	66'000		66'000		66'000
Var. man. cost: labor-hours allowed per output unit	5.0				
Variable manufacturing cost rate per labor-hour	0.5900		0.5900		0.5905
Var. man. cost: labor-hours allowed / used	330'000		315'000		315'000
Variable manufacturing overhead costs per output unit					
Fixed manufacturing cost rate per labor-hour	0.61				
Fixed manufacturing overhead costs	183'000.00		183'000.00		189'000.00

## Nolton Products

	<u>flexible Budget</u>	<u>Efficiency variance</u>	<u>flexible Budget</u>	<u>Spending variance</u>	<u>Actual Results</u>
- Variable manufacturing overhead	-194'700.00	8'850.00	-185'850.00	-150.00	-186'000.00
- Fixed manufacturing overhead	-183'000.00	-	-183'000.00	-6'000.00	-189'000.00
Allocated Fixed manufacturing overhead	-201'300.00				
Production-volume variance	18'300.00				

Vorzeichen: (+) günstig, (-) ungünstig

## Überleitung von Budget/Standard zu effektiven Kosten/Erlösen auf der Ebene des Operating (manufacturing) income

für die  
Webb  
Company!

Static Budget of operating (manufacturing) income		108'000.00
+/-	Sales-volume variance (level Operating (manufacturing) income	
	Revenues	-240'000.00
	Direct materials	120'000.00
	Direct manufacturing labor	32'000.00
	Variable manufacturing overhead	24'000.00
	Fixed manufacturing overhead	- n.a.
=	Flexible budget	44'000.00
Applied fixed manufacturing overhead		-230'000.00
+/-	Production-volume variance	-46'000.00
=	Flexible budget / static budget fixed manufacturing overhead	-276'000.00
+/- Efficiency variances		
	Revenues	
	Direct materials	-66'000.00
	Direct manufacturing labor	-20'000.00
	Variable manufacturing overhead	-15'000.00
	Fixed manufacturing overhead	- n.a.
=	Flexible budget	-57'000.00
+/- Price/Spending variances		
	Revenues	50'000.00
	Direct materials	44'400.00
	Direct manufacturing labor	-18'000.00
	Variable manufacturing overhead	4'500.00
	Fixed manufacturing overhead	-9'000.00
=	Actual Result	14'900.00