

BOEING Case Competition FA 2022



PennState



Executive Summary

Situation

- Germany requires 60 Chinooks until 2035
Average cost approximately \$70M
- U.S. requires at least 15 but not more than 25 Chinooks and cost cannot exceed \$45M

Challenge

- Material cost expected to increase by 5% per year beyond 2023
- Labor cost expected to increase by 3.5% per year
- No changes in quality of capital and employees

Opportunities

- Efficiently use \$10M investment
- Advancing Transmission Purchase to reduce the total cost

Assumption



No Inventories; thus, there is no carrying cost



Paying supplier after collecting money from our costumers



Threat of new entrants is low

Increase price of Chinooks 5% annually



- US will accept 5 percent annual price increase
- US want to receive Chinooks as evenly as possible

US (2)	0.05	$\pi=0.05$	$\pi=0.035$				
Year	Revenue	COGs	Labor	Profit per sale	unit #	ROS	total profit
2023	\$ 45.00	\$ 31.50	\$ 6.75	\$ 6.75	20.00	15%	\$ 135.00
2024	\$ 47.25	\$ 33.08	\$ 6.99	\$ 7.19	20.00	15%	\$ 143.78
2025	\$ 49.61	\$ 34.73	\$ 7.23	\$ 7.65	20.00	15%	\$ 153.06
2026	\$ 52.09	\$ 36.47	\$ 7.48	\$ 8.14	20.00	16%	\$ 162.88
2027	\$ 54.70	\$ 38.29	\$ 7.75	\$ 8.66	20.00	16%	\$ 173.27
2028	\$ 57.43	\$ 40.20	\$ 8.02	\$ 9.21	20.00	16%	\$ 184.26
2029	\$ 60.30	\$ 42.21	\$ 8.30	\$ 9.79	20.00	16%	\$ 195.88
2030	\$ 63.32	\$ 44.32	\$ 8.59	\$ 10.41	20.00	16%	\$ 208.16
2031	\$ 66.49	\$ 46.54	\$ 8.89	\$ 11.06	20.00	17%	\$ 221.14
2032	\$ 69.81	\$ 48.87	\$ 9.20	\$ 11.74	20.00	17%	\$ 234.87
2033	\$ 73.30	\$ 51.31	\$ 9.52	\$ 12.47	20.00	17%	\$ 249.37
2034	\$ 76.97	\$ 53.88	\$ 9.85	\$ 13.23	20.00	17%	\$ 264.70
2035	\$ 80.81	\$ 56.57	\$ 10.20	\$ 14.04	20.00	17%	\$ 280.89
							\$ 2,607.25



advantage

1

Maximized profit



disadvantage

2

May harm relationship



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Increase price of Chinooks by 4.8%



- US will accept 5 percent annual price increase
- US want to receive Chinooks as evenly as possible

US (2)	0.048	$\pi=0.05$	$\pi=0.035$				
Year	Revenue	COGs	Labor	Profit per sale	unit #	ROS	total profit
2023	\$ 45.00	\$ 31.50	\$ 6.75	\$ 6.75	20.00	15%	\$ 135.00
2024	\$ 47.16	\$ 33.08	\$ 6.99	\$ 7.10	20.00	15%	\$ 141.98
2025	\$ 49.42	\$ 34.73	\$ 7.23	\$ 7.46	20.00	15%	\$ 149.28
2026	\$ 51.80	\$ 36.47	\$ 7.48	\$ 7.85	20.00	15%	\$ 156.94
2027	\$ 54.28	\$ 38.29	\$ 7.75	\$ 8.25	20.00	15%	\$ 164.96
2028	\$ 56.89	\$ 40.20	\$ 8.02	\$ 8.67	20.00	15%	\$ 173.36
2029	\$ 59.62	\$ 42.21	\$ 8.30	\$ 9.11	20.00	15%	\$ 182.16
2030	\$ 62.48	\$ 44.32	\$ 8.59	\$ 9.57	20.00	15%	\$ 191.37
2031	\$ 65.48	\$ 46.54	\$ 8.89	\$ 10.05	20.00	15%	\$ 201.02
2032	\$ 68.62	\$ 48.87	\$ 9.20	\$ 10.56	20.00	15%	\$ 211.11
2033	\$ 71.92	\$ 51.31	\$ 9.52	\$ 11.08	20.00	15%	\$ 221.68
2034	\$ 75.37	\$ 53.88	\$ 9.85	\$ 11.64	20.00	15%	\$ 232.75
2035	\$ 78.99	\$ 56.57	\$ 10.20	\$ 12.22	20.00	15%	\$ 244.33
							\$ 2,405.94



advantage

1

increased Customer loyalty



disadvantage

2

Lower profit



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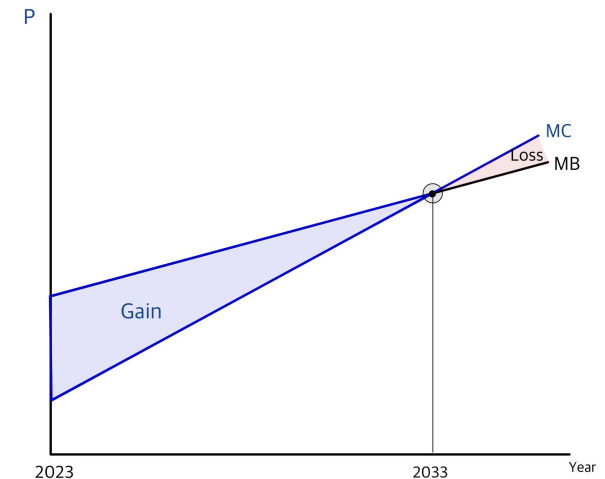


Increase price of Chinooks by 3.92%



- has a goal to receive 60 Chinooks
- cannot receive more than 10 Chinooks per year
- Annual cost cannot exceed \$70M

German (2)	0.0321	$\pi=0.05$	$\pi=0.035$				
Year	Revenue	COGs	Labor	Profit per sale	unit #	ROS	total profit
2023	\$ 55.00	\$ 38.50	\$ 8.25	\$ 8.25		15%	\$ -
2024	\$ 56.77	\$ 40.43	\$ 8.54	\$ 7.80		14%	\$ -
2025	\$ 58.59	\$ 42.45	\$ 8.84	\$ 7.30		12%	\$ -
2026	\$ 60.47	\$ 44.57	\$ 9.15	\$ 6.75	6.00	11%	\$ 40.52
2027	\$ 62.41	\$ 46.80	\$ 9.47	\$ 6.15	6.00	10%	\$ 36.87
2028	\$ 64.41	\$ 49.14	\$ 9.80	\$ 5.48	6.00	9%	\$ 32.86
2029	\$ 66.48	\$ 51.59	\$ 10.14	\$ 4.75	6.00	7%	\$ 28.47
2030	\$ 68.61	\$ 54.17	\$ 10.50	\$ 3.94	6.00	6%	\$ 23.67
2031	\$ 70.82	\$ 56.88	\$ 10.86	\$ 3.07	6.00	4%	\$ 18.43
2032	\$ 73.09	\$ 59.73	\$ 11.24	\$ 2.12	6.00	3%	\$ 12.72
2033	\$ 75.44	\$ 62.71	\$ 11.64	\$ 1.09	6.00	1%	\$ 6.52
2034	\$ 77.86	\$ 65.85	\$ 12.04	\$ (0.03)	6.00	0%	\$ (0.21)
2035	\$ 80.36	\$ 69.14	\$ 12.47	\$ (1.25)	6.00	-2%	\$ (7.50)
	\$ 69.99						\$ 192.35

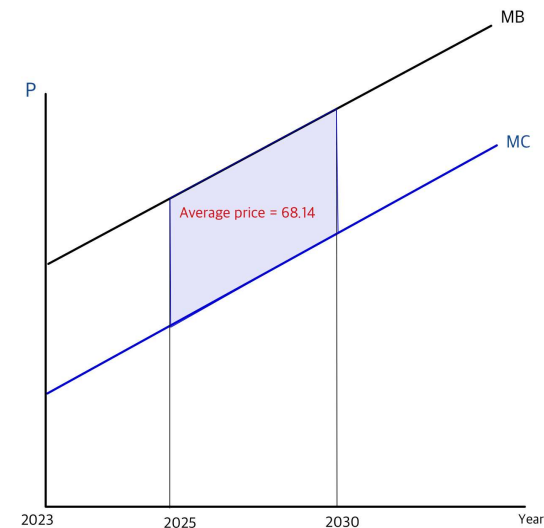


Increase price of Chinooks by 4.8%



- has a goal to receive 60 Chinooks
- cannot receive more than 10 Chinooks per year
- Annual cost cannot exceed \$70M

German (1)	0.048						
Year	Revenue	COGs	Labor	Profit per sale	unit #	ROS	total profit
2023	\$ 55.00	\$ 38.50	\$ 8.25	\$ 8.25	-	15%	\$ -
2024	\$ 57.64	\$ 40.43	\$ 8.54	\$ 8.68	-	15%	\$ -
2025	\$ 60.41	\$ 42.45	\$ 8.84	\$ 9.12	10.00	15%	\$ 91.23
2026	\$ 63.31	\$ 44.57	\$ 9.15	\$ 9.59	10.00	15%	\$ 95.91
2027	\$ 66.34	\$ 46.80	\$ 9.47	\$ 10.08	10.00	15%	\$ 100.81
2028	\$ 69.53	\$ 49.14	\$ 9.80	\$ 10.59	10.00	15%	\$ 105.94
2029	\$ 72.87	\$ 51.59	\$ 10.14	\$ 11.13	10.00	15%	\$ 111.32
2030	\$ 76.36	\$ 54.17	\$ 10.50	\$ 11.69	10.00	15%	\$ 116.95
2031	\$ 80.03	\$ 56.88	\$ 10.86	\$ 12.28	-	15%	\$ -
2032	\$ 83.87	\$ 59.73	\$ 11.24	\$ 12.90	-	15%	\$ -
2033	\$ 87.90	\$ 62.71	\$ 11.64	\$ 13.55	-	15%	\$ -
2034	\$ 92.12	\$ 65.85	\$ 12.04	\$ 14.22	-	15%	\$ -
2035	\$ 96.54	\$ 69.14	\$ 12.47	\$ 14.93	-	15%	\$ -
	\$ 68.14						\$ 622.15



✓ Average price of 2025 – 2030 is **below \$70M**

✓ Constant ROS

✓ Total profit = \$622.15M

✓ Able to deliver Chinooks on 2025 due to decreased lead time



PV of profit

Total							
Year	Total Benefit	total COGs	Total Labor	total profit	PV of total profit	PV of total Benefit	PV of total cost
2023	\$ 855.00	\$ 598.50	\$ 128.25	\$ 128.25	\$ 128.25	\$ 855.00	\$ 726.75
2024	\$ 943.20	\$ 661.50	\$ 139.73	\$ 141.98	\$ 122.14	\$ 814.29	\$ 692.14
2025	\$ 1,592.54	\$ 1,119.04	\$ 232.99	\$ 240.51	\$ 116.33	\$ 775.51	\$ 659.18
2026	\$ 1,668.98	\$ 1,174.99	\$ 241.15	\$ 252.85	\$ 110.79	\$ 738.58	\$ 627.79
2027	\$ 1,749.09	\$ 1,233.74	\$ 249.59	\$ 265.77	\$ 105.51	\$ 703.41	\$ 597.90
2028	\$ 1,833.05	\$ 1,295.43	\$ 258.32	\$ 279.30	\$ 100.49	\$ 669.91	\$ 569.43
2029	\$ 1,921.04	\$ 1,360.20	\$ 267.36	\$ 293.48	\$ 95.70	\$ 638.01	\$ 542.31
2030	\$ 2,013.25	\$ 1,428.21	\$ 276.72	\$ 308.32	\$ 91.14	\$ 607.63	\$ 516.49
2031	\$ 1,309.58	\$ 930.80	\$ 177.77	\$ 201.02	\$ 86.80	\$ 578.70	\$ 491.89
2032	\$ 1,372.44	\$ 977.34	\$ 183.99	\$ 211.11	\$ 82.67	\$ 551.14	\$ 468.47
2033	\$ 1,438.32	\$ 1,026.20	\$ 190.43	\$ 221.68	\$ 78.73	\$ 524.90	\$ 446.16
2034	\$ 1,507.36	\$ 1,077.51	\$ 197.10	\$ 232.75	\$ 74.99	\$ 499.90	\$ 424.92
2035	\$ 1,579.71	\$ 1,131.39	\$ 203.99	\$ 244.33	\$ 71.41	\$ 476.10	\$ 404.68
	\$ 19,783.57	\$ 14,014.84	\$ 2,747.39	\$ 3,021.34	\$ 1,264.96	\$ 8,433.08	\$ 7,168.12
						TB-TC = \$	1,264.96
						ROS =	15%



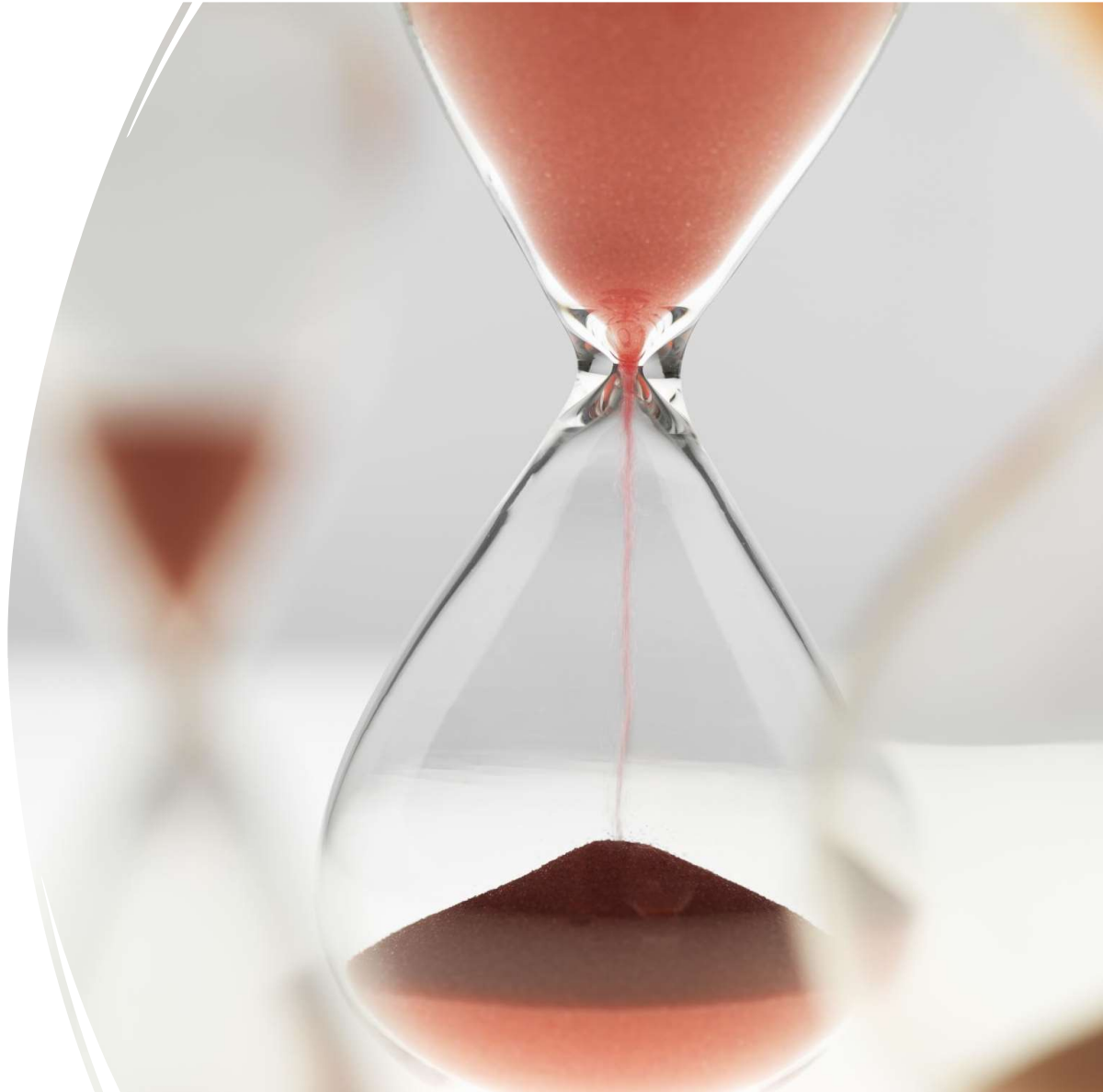
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Opportunity#1:
10M Investment

Investment on Reducing Lead Time

- Decided to invest
- Outcome:
 - Maximize customer satisfaction
 - Maximize profit



German (1)	0.048						
Year	Revenue	COGs	Labor	Profit per sale	unit #	ROS	total profit
2023	\$ 55.00	\$ 38.50	\$ 8.25	\$ 8.25		15%	\$ -
2024	\$ 57.64	\$ 40.43	\$ 8.54	\$ 8.68		15%	\$ -
2025	\$ 60.41	\$ 42.45	\$ 8.84	\$ 9.12		15%	\$ -
2026	\$ 63.31	\$ 44.57	\$ 9.15	\$ 9.59	10.00	15%	\$ 95.91
2027	\$ 66.34	\$ 46.80	\$ 9.47	\$ 10.08	10.00	15%	\$ 100.81
2028	\$ 69.53	\$ 49.14	\$ 9.80	\$ 10.59	10.00	15%	\$ 105.94
2029	\$ 72.87	\$ 51.59	\$ 10.14	\$ 11.13	10.00	15%	\$ 111.32
2030	\$ 76.36	\$ 54.17	\$ 10.50	\$ 11.69	10.00	15%	\$ 116.95
2031	\$ 80.03	\$ 56.88	\$ 10.86	\$ 12.28	10.00	15%	\$ 122.84
2032	\$ 83.87	\$ 59.73	\$ 11.24	\$ 12.90		15%	\$ -
2033	\$ 87.90	\$ 62.71	\$ 11.64	\$ 13.55		15%	\$ -
2034	\$ 92.12	\$ 65.85	\$ 12.04	\$ 14.22		15%	\$ -
2035	\$ 96.54	\$ 69.14	\$ 12.47	\$ 14.93		15%	\$ -
	\$ 71.41						\$ 653.77

Effect of Investment I

- Situation without investment
- Lead Time takes 40 months (3 years & 4 months)

German (1)	0.0443						
Year	Revenue	COGs	Labor	Profit per sale	unit #	ROS	total profit
2023	\$ 55.00	\$ 38.50	\$ 8.25	\$ 8.25		15%	\$ -
2024	\$ 57.44	\$ 40.43	\$ 8.54	\$ 8.47		15%	\$ -
2025	\$ 59.98	\$ 42.45	\$ 8.84	\$ 8.70		14%	\$ -
2026	\$ 62.64	\$ 44.57	\$ 9.15	\$ 8.92	10.00	14%	\$ 89.23
2027	\$ 65.41	\$ 46.80	\$ 9.47	\$ 9.15	10.00	14%	\$ 91.49
2028	\$ 68.31	\$ 49.14	\$ 9.80	\$ 9.38	10.00	14%	\$ 93.76
2029	\$ 71.34	\$ 51.59	\$ 10.14	\$ 9.60	10.00	13%	\$ 96.02
2030	\$ 74.50	\$ 54.17	\$ 10.50	\$ 9.83	10.00	13%	\$ 98.27
2031	\$ 77.80	\$ 56.88	\$ 10.86	\$ 10.05	10.00	13%	\$ 100.52
2032	\$ 81.24	\$ 59.73	\$ 11.24	\$ 10.27		13%	\$ -
2033	\$ 84.84	\$ 62.71	\$ 11.64	\$ 10.49		12%	\$ -
2034	\$ 88.60	\$ 65.85	\$ 12.04	\$ 10.71		12%	\$ -
2035	\$ 92.53	\$ 69.14	\$ 12.47	\$ 10.92		12%	\$ -
	\$ 70.00						\$ 569.28

Effect of Investment II

- Situation without investment
- Increased the price rate of each aircraft by 4.43% to meet the average revenue of 60 Chinooks, \$70M

German (1)	0.048						
Year	Revenue	COGs	Labor	Profit per sale	unit #	ROS	total profit
2023	\$ 55.00	\$ 38.50	\$ 8.25	\$ 8.25		15%	\$ -
2024	\$ 57.64	\$ 40.43	\$ 8.54	\$ 8.68		15%	\$ -
2025	\$ 60.41	\$ 42.45	\$ 8.84	\$ 9.12	10.00	15%	\$ 91.23
2026	\$ 63.31	\$ 44.57	\$ 9.15	\$ 9.59	10.00	15%	\$ 95.91
2027	\$ 66.34	\$ 46.80	\$ 9.47	\$ 10.08	10.00	15%	\$ 100.81
2028	\$ 69.53	\$ 49.14	\$ 9.80	\$ 10.59	10.00	15%	\$ 105.94
2029	\$ 72.87	\$ 51.59	\$ 10.14	\$ 11.13	10.00	15%	\$ 111.32
2030	\$ 76.36	\$ 54.17	\$ 10.50	\$ 11.69	10.00	15%	\$ 116.95
2031	\$ 80.03	\$ 56.88	\$ 10.86	\$ 12.28		15%	\$ -
2032	\$ 83.87	\$ 59.73	\$ 11.24	\$ 12.90		15%	\$ -
2033	\$ 87.90	\$ 62.71	\$ 11.64	\$ 13.55		15%	\$ -
2034	\$ 92.12	\$ 65.85	\$ 12.04	\$ 14.22		15%	\$ -
2035	\$ 96.54	\$ 69.14	\$ 12.47	\$ 14.93		15%	\$ -
	\$ 68.14						\$ 622.15

Effect of Investment III

- 2023: Start of investment
- After 30 months of lead time, 10 Chinooks will be manufactured and delivered to Germany every year from 2025 to 2030

Lead Time Process After Investment

	With Investment																				
	2019/1	2020/1	2021/1	2022/1	2022/5	2023/1	2023/5	2024/1	2024/5	2025/1	2025/5	2025/10	2026/1	2026/5	2026/10	2027/1	2027/7	2027/10	2028/1	2028/5	2028/10
Delivered					20		20		20		20	10			30			30			30
in process (1)				20		20		20		20	10			30			30			30	
in process (2)			20	20		20		20		10			30			30			30		
in process (3)		20	20	20		20		10		30			30			30			30		
Start	20	20	20	20		10		30		30			30			30			30		

2029/1	2029/5	2029/10	2030/1	2030/5	2030/10	2031/1	2031/5	2031/10	2032/1	2032/5	2032/10	2033/1	2033/5	2033/10	2034/1	2034/5	2034/10	2035/1	2035/5	2035/10
		30			30			20			20			20			20			20
	30			30			20			20			20			20			20	
30			30			20			20			20			20			20		
30			20			20			20			20			20			20		
20			20			20			20			20			20			20		



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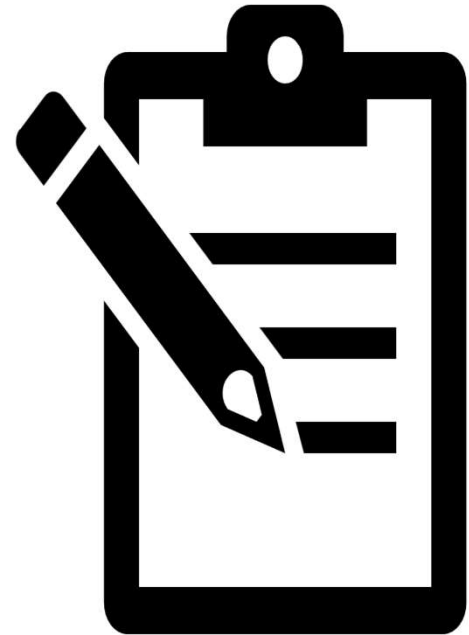


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Opportunity#2:
Advance Purchase of Transmission

Content



Analysing Optimal Time

Controlled (Before Advance Purchase)

Setting Offset Value

Finalized COGs (After Advance purchase)

Outcome: Controlled Vs Finalized

Optimal Time for Advance Purchasing

- Optimal Time: 2024
- Reason: Financial Flexibility (least amount of COG)

US	0.048	$\pi=0.05$	$\pi=0.035$				
Year	Revenue	COGs	Labor	Profit per sale	unit #	ROS	total profit
2023	\$ 45.00	\$ 31.50	\$ 6.75	\$ 6.75	20.00	15%	\$ 135.00
2024	\$ 47.16	\$ 33.08	\$ 6.99	\$ 7.10	20.00	15%	\$ 141.98
2025	\$ 49.42	\$ 34.73	\$ 7.23	\$ 7.46	20.00	15%	\$ 149.28

German	0.048	$\pi=0.05$	$\pi=0.035$				
Year	Revenue	COGs	Labor	Profit per sale	unit #	ROS	total profit
2023	\$ 55.00	\$ 38.50	\$ 8.25	\$ 8.25		15%	\$ -
2024	\$ 57.64	\$ 40.43	\$ 8.54	\$ 8.68		15%	\$ -
2025	\$ 60.41	\$ 42.45	\$ 8.84	\$ 9.12	10.00	15%	\$ 91.23



Control Variable

US	0.048	$\pi=0.05$	$\pi=0.035$				
Year	Revenue	COGs	Labor	Profit per sale	unit #	ROS	total profit
2023	\$ 45.00	\$ 31.50	\$ 6.75	\$ 6.75	20.00	15%	\$ 135.00
2024	\$ 47.16	\$ 33.08	\$ 6.99	\$ 7.10	20.00	15%	\$ 141.98
2025	\$ 49.42	\$ 34.73	\$ 7.23	\$ 7.46	20.00	15%	\$ 149.28
2026	\$ 51.80	\$ 36.47	\$ 7.48	\$ 7.85	20.00	15%	\$ 156.94
2027	\$ 54.28	\$ 38.29	\$ 7.75	\$ 8.25	20.00	15%	\$ 164.96
2028	\$ 56.89	\$ 40.20	\$ 8.02	\$ 8.67	20.00	15%	\$ 173.36
2029	\$ 59.62	\$ 42.21	\$ 8.30	\$ 9.11	20.00	15%	\$ 182.16
2030	\$ 62.48	\$ 44.32	\$ 8.59	\$ 9.57	20.00	15%	\$ 191.37
2031	\$ 65.48	\$ 46.54	\$ 8.89	\$ 10.05	20.00	15%	\$ 201.02
2032	\$ 68.62	\$ 48.87	\$ 9.20	\$ 10.56	20.00	15%	\$ 211.11
2033	\$ 71.92	\$ 51.31	\$ 9.52	\$ 11.08	20.00	15%	\$ 221.68
2034	\$ 75.37	\$ 53.88	\$ 9.85	\$ 11.64	20.00	15%	\$ 232.75
2035	\$ 78.99	\$ 56.57	\$ 10.20	\$ 12.22	20.00	15%	\$ 244.33
							\$ 2,405.94

 : Control Variable

German	0.048	$\pi=0.05$	$\pi=0.035$				
Year	Revenue	COGs	Labor	Profit per sale	unit #	ROS	total profit
2023	\$ 55.00	\$ 38.50	\$ 8.25	\$ 8.25		15%	\$ -
2024	\$ 57.64	\$ 40.43	\$ 8.54	\$ 8.68		15%	\$ -
2025	\$ 60.41	\$ 42.45	\$ 8.84	\$ 9.12	10.00	15%	\$ 91.23
2026	\$ 63.31	\$ 44.57	\$ 9.15	\$ 9.59	10.00	15%	\$ 95.91
2027	\$ 66.34	\$ 46.80	\$ 9.47	\$ 10.08	10.00	15%	\$ 100.81
2028	\$ 69.53	\$ 49.14	\$ 9.80	\$ 10.59	10.00	15%	\$ 105.94
2029	\$ 72.87	\$ 51.59	\$ 10.14	\$ 11.13	10.00	15%	\$ 111.32
2030	\$ 76.36	\$ 54.17	\$ 10.50	\$ 11.69	10.00	15%	\$ 116.95
2031	\$ 80.03	\$ 56.88	\$ 10.86	\$ 12.28		15%	\$ -
2032	\$ 83.87	\$ 59.73	\$ 11.24	\$ 12.90		15%	\$ -
2033	\$ 87.90	\$ 62.71	\$ 11.64	\$ 13.55	-	15%	\$ -
2034	\$ 92.12	\$ 65.85	\$ 12.04	\$ 14.22	-	15%	\$ -
2035	\$ 96.54	\$ 69.14	\$ 12.47	\$ 14.93	-	15%	\$ -
							\$ 622.15



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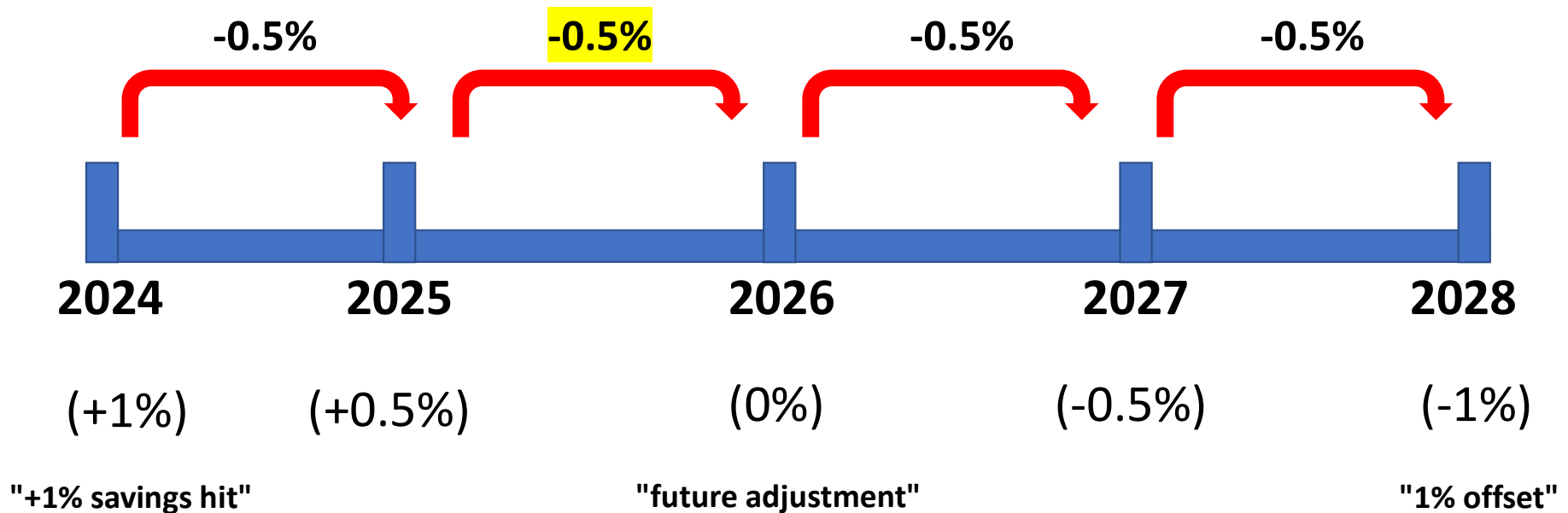
Year	$\pi=0.05$	
	COGs	
2023	\$	31.50
2024	\$	33.08
2025	\$	34.73
2026	\$	36.47
2027	\$	38.29
2028	\$	40.20
2029	\$	42.21
2030	\$	44.32
2031	\$	46.54
2032	\$	48.87
2033	\$	51.31
2034	\$	53.88
2035	\$	56.57



$\pi=0.05$	
COGs	
\$	38.50
\$	40.43
\$	42.45
\$	44.57
\$	46.80
\$	49.14
\$	51.59
\$	54.17
\$	56.88
\$	59.73
\$	62.71
\$	65.85
\$	69.14



Setting Offset Rate



Calculating FCOGs (E.g. US)

1. 2023 CCOGs = 2023 FCOGs (Material bought in advance on 2024)

2. 2024 CCOG * 1.01 = 2024 FCOG

3. 2024 FCOGs * 1.05 * 0.995 = 2025 FCOG

3.1. Repeat Step 3 to Calculate FCOGs for 2026~2028

4. 2028 Finalized COGs * 1.05 = 2029 Finalized COG

5. Repeat step 4 to calculate 2030~2035 FCOGs

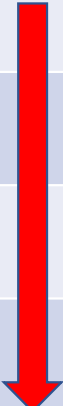
Year	CCOG	COG(+1%,24)	COG after offset	FCOG For US
2024	33.08	33.41		33.41
2025		35.08	34.90	34.90
2026		36.65	36.46	36.46
2027		38.29	38.09	38.09
2028		40.00	39.80	39.80
2029		41.79		41.79
2030		43.88		43.88
2031		46.07		46.07
2032		48.38		48.38
2033		50.79		50.79
2034		53.33		53.33
2035		56.00		56.00

Note: CCOG(Before buying transmission) FCOG (After buying material in advance)


Legend: CCOG (Control COG), FCOG(Finalized COG with Offset Value)

COGs vs Finalized COGs for US

Year	Control COGs	Finalized COGs
2023	31.50	31.50
2024	33.08	33.41
2025	34.73	34.90
2026	36.47	36.46
2027	38.29	38.09
2028	40.20	39.80
2029	42.21	41.79




Year	Control COGs	Finalized COGs
2030	44.32	43.88
2031	46.54	46.07
2032	48.87	48.38
2033	51.31	50.79
2034	53.88	53.33
2035	56.57	56.00

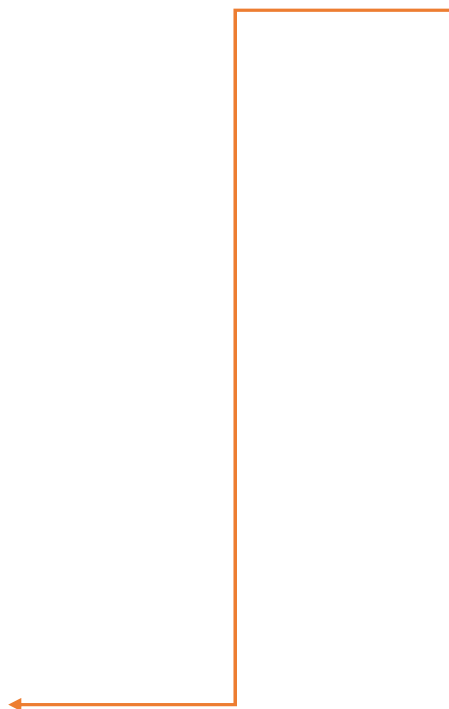


COGs vs Finalized COGs for Germany

Year	Control COGs	Finalized COGs
2023	38.50	38.50
2024	40.43	40.83
2025	42.45	42.66
2026	44.57	44.57
2027	46.80	46.57
2028	49.14	48.65
2029	51.59	51.08



Year	Control COGs	Finalized COGs
2030	54.17	53.64
2031	56.88	56.32
2032	59.73	59.13
2033	62.71	62.09
2034	65.58	65.19
2035	69.14	68.45



Conclusion

Invest \$10M (2023)

Purchase
Transmission
Advance in 2024

Outcome: Meet
Customer
Requirements and
Maximize Profit