

ENGINEUITY TUTORIAL



Forward Workload And Margin



Forward Workload And Margin

The **forward workload** (or potential turnover) of the company is the remaining value (monies) to be recovered from all the jobs in progress.

The **forward margin** is the anticipated remaining profit on all jobs in progress.

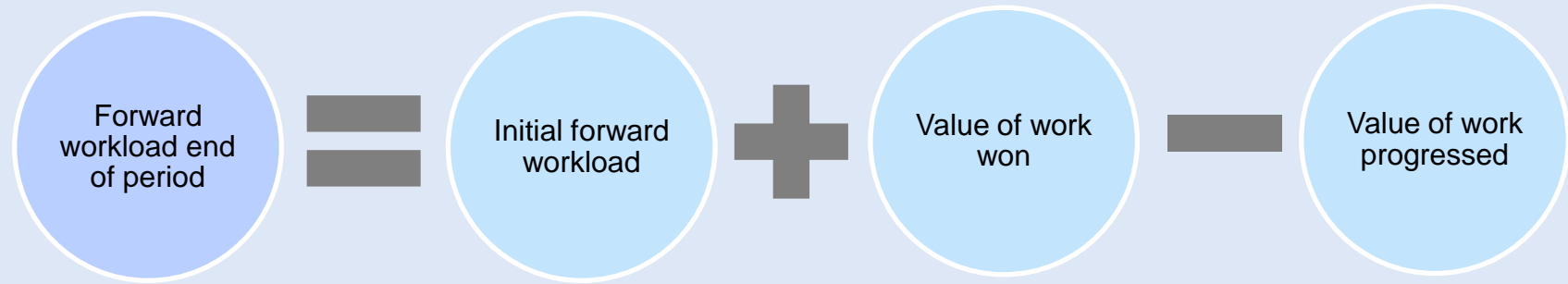
Both are calculated at the end of a period, after all the company's decisions have been processed for the period.



Forward Workload And Margin

The forward workload at the end of a period is based upon :-

- The initial forward workload at the start of the period
- The value of work won in the period during the bidding process
- The value of work progressed from jobs in progress





Forward Workload And Margin

Financial Performance

Navigate to "Main menu/Measuring performance/Assessing performance/Financial analysis"

Management consultants report Graphical analysis

OPERATIONAL

SHAREHOLDERS

INVESTMENTS

Summary

Assets and liabilities

Per	Status	Year/qtr	Job performance				Company performance				Shareholders		Future outlook		
			Total value	Total cost	Gross profit	GP % cost	Overhead costs	OVH % of cost	Net operating profit	NOP % cost	Share price	Dividend % cost	Company value	Forward workload	Forward margin
1	History	2023 (Q1)	0	0	0		34,080		-30,580		0.93		4,844,420	0	0
2	History	2023 (Q2)	0	0	0		84,000		-80,522		1.06		4,646,054	21,681,700	937,916
3	History	2023 (Q3)	7,880,711	7,402,859	477,852	6.5 %	169,720	2.3 %	237,934	3.2 %	1.05	1.4 %	4,754,218	20,973,480	903,198
4	History	2023 (Q4)	12,720,600	12,293,440	427,161	3.5 %	155,000	1.3 %	213,947	1.7 %	1.04	0.9 %	4,852,965	20,831,500	905,458
5	Early Years	2024 (Q1)	13,025,620	12,384,630	640,992	5.2 %	231,070	1.9 %	314,339	2.5 %	1.10	0.8 %	5,050,498	19,539,940	853,289
6	Early Years	2024 (Q2)	9,640,023	8,925,667	714,356	8.0 %	309,010	3.5 %	312,912	3.5 %	1.28	1.8 %	5,181,108	31,411,770	1,343,681
7	Early Years	2024 (Q3)	14,262,650	13,523,850	738,800	5.5 %	236,670	1.8 %	391,899	2.9 %	1.38	1.4 %	5,365,893	33,817,530	1,399,489
8	Early Years	2024 (Q4)	20,819,720	19,725,490	1,094,224	5.5 %	247,720	1.3 %	656,926	3.3 %	1.53	0.7 %	5,865,802	30,317,150	1,170,757

PERIOD 8

CLICK ON A LINE IN THE THE SUMMARY ABOVE TO SHOW THE PERIOD DETAILS

JOB PERFORMANCE

Measured value:	20,921,750	?
Early completion bonus:	58,168	?
(less) Retention held:	248,400	?
Retention repaid:	88,201	?
Total value:	20,819,720	
(less) Costs:	19,725,490	?
Gross profit:	1,094,224	(5.5 % of job costs)

COMPANY PERFORMANCE

(less) Overheads:	247,720	?	(1.3 % of job costs)
Gross operating profit:	846,504		
(less) Corporation tax:	185,534	?	
(plus) Credit interest:	0		
(less) Overdraft interest:	4,044	?	
Net operating profit:	656,926		(3.3 % of job costs)

FUTURE OUTLOOK

Forward workload:	30,317,150	?
Forward margin:	1,170,757	

Consider the following example where the forward workload at the end of period 8 is 30,317,150.

This is calculated from :-

- The initial forward workload at the start of period 8, which is the forward workload at the end of period 7 i.e., 33,817,530
- The value of work won in period 8
- The value of work progressed in period 8



Forward Workload And Margin

Procurement performance

Navigate to "Main menu/Measuring performance/Assessing performance/Procurement analysis"

Management consultant report

PREVIOUS BIDS

RIVAL BIDS

Procurement Restrictions

NUMBER OF JOBS IN PROGRESS

AMOUNT OF WORK THAT CAN BE WON

At the start of the period, the number of jobs in progress is: 5 (job progression screen)
 The number of jobs in progress after bidding cannot exceed: 10 jobs
 Hence, the maximum number of jobs that can be won is: 5 jobs during bidding

The initial forward workload is: 33,817,530 (job progression screen)
 The current value of the capital base is: 5,185,823 (financial decision screen)
 The current capital base can support forward workload of: 51,858,230 (10 x capital base)
 Hence, the value of work that can be won cannot exceed: 18,040,700 during bidding

8

Full Tender Report

Job details

Bid details

Period	Job	Country	Type	BIM	Sector	Client	Bid submitted	Won	Comment	Cumulative forward workload
8	162	United Kingdom	BO	Yes	Building & Commercial	Master Brewers UK	11,790,210	Yes	Won on price	45,607,740
8	164	United Kingdom	BO	Yes	Building & Commercial	Madison Bank	5,630,266	Yes	Won on price	51,238,000
8	168	United Kingdom	BO	Yes	Water & Sewage	Fenlands County Council	12,183,770	No	Capital base limits workload	51,238,000

Display details for job 162
 Tender report for job 162

During period 8 the company won 2 new jobs :-

- Job 162 with a bid value of 11,790,210
- Job 164 with a bid value of 5,630,266

The value of work won (17,420,476) was added to the initial forward workload of 33,817,530 to give a cumulative forward workload of 51,238,000 after the bidding.



Forward Workload And Margin

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Gross operating profit:	846,504		
(less) Corporation tax:	185,534	?	
(plus) Credit interest:	0		
(less) Overdraft interest:	4,044	?	
Net operating profit:	656,926		(3.3 % of job costs)

FUTURE OUTLOOK

Forward workload:	30,317,150	?
Forward margin:	1,170,757	

During period 8 the company's measured value from jobs progressed was 20,921,750. The actual value is very close to the measured value, but not necessarily the same if the measurement department is understaffed in the period.

The cumulative forward workload of 51,238,000 after the bidding is adjusted by taking off the actual value of work progressed in period 8 (20,920,850) to give the forward workload at the end of period 8 of 30,317,150.

The ? can be used to drill-down to job-level detail for both the forward workload and margin values.



Forward Workload And Margin

Forward Workload and Margin Analysis for Period 8

SUMMARY

Initial forward workload prior to bidding:	33,817,530
Value of work won during bidding:	17,420,470
	51,238,000
(less) value of work progressed in the period:	20,920,850
	30,317,150

Job	Country	Desc	Sector	Type	Size	Client	Bid	% left	Forward workload	Remaining cost	Forward margin
102	UK	2/3 bedroom retirement bungalows	Building & Commercial	DB	Medium	Lowry Homes	13,482,740	23.85 %	3,215,634	3,083,146	132,488
103	NZ	Water treatment plant modernisation	Water & Sewage	BO	Medium	ANZ Water	8,086,820	3.51 %	283,848	271,244	12,604
147	US	Modifications to the MetLife Stadium	Building & Commercial	BO	Medium	FIFA North America 2026	11,750,920	59.00 %	6,909,542	6,643,618	265,924
151	AUS	New pumping station	Water & Sewage	BO	Small	Queensland Water	4,851,114	0.00 %	2,487,651	2,378,441	109,210
162	UK	New distribution facility	Building & Commercial	BO	Medium	Master Brewers UK	11,790,210	0.00 %	11,790,210	11,367,540	422,663
164	UK	Upgrade of local branches	Building & Commercial	BO	Small	Madison Bank	5,630,266	0.00 %	5,630,266	5,402,398	227,868
									30,317,150		1,170,757

The forward workload and margin values were formed from 6 jobs in progress.

Taking job 102 as an example :-

- 23.85% of the job was left to complete at the end of period 8, giving a remaining forward workload of 3,215,634 (23.85% of the bid value of 13,482,740)
- The forward margin figure comes from the forward workload less the remaining cost.

KEY POINTS

The remaining cost is based upon the anticipated **true cost** of the job, taking into account build cost, design cost, site cost, 'sensible' risk and project manager costs.



Forward Workload And Margin

KEY PERFORMANCE INDICATORS

PERFORMANCE SUMMARY

CLICK ON THE DATA IN A COLUMN TO SEE HOW THE SELECTED KEY PERFORMANCE INDICATOR WAS CALCULATED

End of period	Status	Year/qtr	Turnover	Gross profit to Turnover	Operating Profit to Turnover	Company Value	Capital Employed	Contract Completion	Forward Workload	Forward Margin	Share Price	Client Satisfaction	Total
4	History	2023 (Q4)	40	170	120	170	130	80	70	100	70	50	1,000
5	Early Years	2024 (Q1)	52	179	142	177	140	108	66	94	74	80	1,112
6	Early Years	2024 (Q2)	56	203	163	181	154	113	106	148	86	98	1,308
7	Early Years	2024 (Q3)	63	203	173	188	168	125	114	155	93	118	1,400
8	Early Years	2024 (Q4)	76	204	188	205	179	137	102	129	103	139	1,462

Forward workload and margin form two of the **key performance indicators of the company**, and indicate the potential future prosperity of the business.



Forward Workload And Margin

MAKING Procurement decisions for period 9 in the Early Years

Change period Key information Help

PROCUREMENT RESTRICTIONS

Company Based Limitations

NUMBER OF JOBS IN PROGRESS				AMOUNT OF WORK THAT CAN BE WON			
At the start of the period, the number of jobs in progress is:	6	(job progression screen)	The initial forward workload is:	30,317,150	(job progression screen)		
The number of jobs in progress after bidding cannot exceed:	10	jobs	The current value of the capital base is:	5,153,412	(financial decision screen)		
Hence, the maximum number of jobs that can be won is:	4	jobs during bidding	The current capital base can support forward workload of:	534,120	(10 x capital base)		
			Hence, the value of work that can be won cannot exceed:	216,970	during bidding		

Job	Country	Type	BIM	Size	App Value	Duration	Description	Sector	Client	Job	Bid	Bid value
194	United Kingdom	BO	No	Medium	12,000,000	3	Canal restoration	Water & Sewage	Engli	194	No	0
195	United States	BO	Yes	Medium	11,000,000	3	Refurbish the Skydeck viewing tower	Building & Commercial	Ch	195	No	0
196	United States	BO	No	Large	16,000,000	5	New car park at Chicago Bulls stadium	Building & Commercial	Ch	196	No	0
197	Mexico	DB	Yes	Medium	11,000,000	4	Construction of base camp for teams	Building & Commercial	Ch	197	No	0
198	United States	BO	Yes	Large	17,000,000	5	Water pretreatment facility development	Water & Sewage	Ch	198	No	0
199	China	BO	Yes	Large	22,000,000	5	Ngong Ping 360 redevelopment	Building & Commercial	Ch	199	No	0
201	United Kingdom	BO	Yes	Medium	9,000,000	4	New local store	Building & Commercial	Ch	201	No	0
202	United Kingdom	BO	No	Medium	11,000,000	4	Upgrade to domestic supply connections	Energy	Ch	202	No	0
203	United States	BO	No	Medium	10,000,000	3	Replace onshore wind turbines	Energy	Ch	203	No	0
214	United Kingdom	DB	Yes	Small	1,000,000	3	2 bedroom apartment development	Building & Commercial	Ch	214	No	0
223	United Kingdom	DB	Yes	Small	3,000,000	3	2 bedroom apartment development	Building & Commercial	Ch	223	No	0
224	United Kingdom	DB	No	Medium	12,000,000	3	New 10k high-pressure pipeline	Energy	Ch	224	No	0

When determining the **amount of work that the company can undertake** based upon the size of the capital base, the forward workload at the end of the previous period is the starting point for any calculations.

The value of any bids won during period 8 are added to the initial forward workload, and the cumulative figure is used to determine how much work the company can undertake.

Display details for job 194 Display client details Yes