

Dynamic Construction Location Factors Update

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Table of contents

1	Introduction	6
2	PEP Cost Index	7
3	Summary and basis of development	8
4	Approach	16
	Capital cost structure	17
	Information required for location factor	19
	Steel	19
	Electric	26
	Civil	27
	Equipment	28
	Skilled construction labor	30
	Engineering	35
	Project management	37
	Engineering and project management productivity	39
5	Identical plant calculations	40
	FOB equipment	41
	Material bulk	41
	Labor	41
	Engineering and project management	41
6	Location factor	43
	Scope	44
	Climate	46
	International content	48
	Tariffs and freight	50
	Exchange rates	53
7	Data sources	56

Tables

Table 3.1 Location factor estimates for the various countries	11
Table 4.1 Breakdowns in location factor model, in percent	18
Table 4.2 Industry components: Petchem	18
Table 4.3 Steel prices by location	22
Table 4.4 User customization of steel price	25
Table 4.5 Skilled labor wage rate (\$/h)	33
Table 4.6 Project management offshoring, 100% in India (in percent)	36
Table 4.7 Project management offshoring, 60% in India	38

Table 5.1 Location factor subcomponents for mainland China	40
Table 6.1 Three broad categories of project-specific elements	43
Table 6.2 Location factor details	45
Table 6.3 Scope adjustment	46
Table 6.4 Climate adjustment	47
Table 6.5 Location factor	48
Table 6.6 International content	49
Table 6.7 Location factor details vary by tariffs and freight	50
Table 6.8 International content	52

Figures

Figure 2.1 PCI history (Index year 1958 = 100)	7
Figure 3.1 Identical plant	8
Figure 3.2 Layered approach to estimating “project” location factor	9
Figure 3.3 Location factor	10
Figure 4.1 Regional steel price index	20
Figure 4.2 Steel price index by time	21
Figure 4.3 Steel impact on location factor	25
Figure 4.4 Regional electric index	26
Figure 4.5 Electric index by time	27
Figure 4.6 Regional civil cost index	27
Figure 4.7 Civil index by time	28
Figure 4.8 Regional equipment index	29
Figure 4.9 Equipment index by time	29
Figure 4.10 Regional skilled labor index	31
Figure 4.11 Skilled labor by time	31
Figure 4.12 Regional engineering index	35
Figure 4.13 Engineering labor by time	36
Figure 4.14 Resulting location factor	37
Figure 4.15 Regional project management index	38
Figure 4.16 Project management effect on location factor index	39
Figure 6.1 Resulting location factor	53
Figure 6.2 Exchange rate — Mexico	53
Figure 6.3 Exchange rate — Japan	54
Figure 6.4 Exchange rate — Germany	54
Figure 6.5 Exchange rate — India	55

Glossary

DCCI	Downstream Capital Cost Index (S&P Global)
EPC	Engineering, procurement and construction
EPM	Engineering and product management
h	Hour
ISBL	Inside battery limits
OSBL	Outside battery limits
PCI	PEP Cost Index
PetChem	Petrochemical
PEP	Process Economics Program
UCCI	Upstream Capital Cost Index (S&P Global)
USGC	US Gulf Coast

Abstract

In our continuous discussions with clients around the world, a topic of frequent interest and priority is the variation between construction cost levels in different locations (location factor). To help our customers understand the fundamentals of location factors, we conducted primary market research and developed a location factor model and methodology that reflect S&P Global macroeconomics, and the country-specific costs needed to develop relative location factors for the construction of petrochemical, chemical and refinery plants. The results and methodology were published in our PEP Report RP204C *Location Factor* (December 2016). In the 2019 PEP Review 2019-12, *Dynamic Construction Location Factors* and accompanying Excel model, we included geographical coverage of 12 locations and an enhanced functionality for clients:

- Estimate a 10-year forward view of location factors.
- Set and/or view scenario conditions (e.g., “test” alternate labor and equipment used in the engineering, procurement and construction business models/approaches).
- Input the user’s own time series of macroeconomics and cost data.

In this 2023 PEP Review RW2023-15, we now include geographical coverage of 34 locations:

Australia	Italy	Saudi Arabia
Austria	Japan	Singapore
Brazil	Kuwait	Slovakia
Canada	Malaysia	Slovenia
Mainland China	Mexico	South Africa
Czech Republic	Norway	Taiwan
France	Oman	Thailand
Germany	Philippines	Ukraine
Hungary	Poland	United Kingdom
India	Qatar	United States
Indonesia	Russia	
Iran	South Korea	

Any geography can be set to 1.0 as the basis country. Note that the base case shows location factor subcomponents relative to the US Gulf Coast. We have also extended the forward view to 2050.

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