

Real Estate Price Statistics in Oman

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Outline

- ❑ Real Estate Index Overview
- ❑ Land Price Index
- ❑ Construction Input Price Index
- ❑ Results
- ❑ Challenges
- ❑ Conclusion

Real Estate Price Index Overview

A Proxy index combining of two separate indices:

A. Land Price Index

Measures the average price change of land plots in the country.

B. Construction Inputs Price Index

Measures the change in average overall costs involved in construction

- Not follow the purchase prices for complete real estate units.
- Nor is it based on the re-sale of real estate units.

Real Estate Price Index Overview

- ❑ REPI measures the total costs involved in the developing residential real estate.
- ❑ This is probably still the most typical way of getting family housing in Oman.
- ❑ Each citizen has a right to own at least one residential plot.

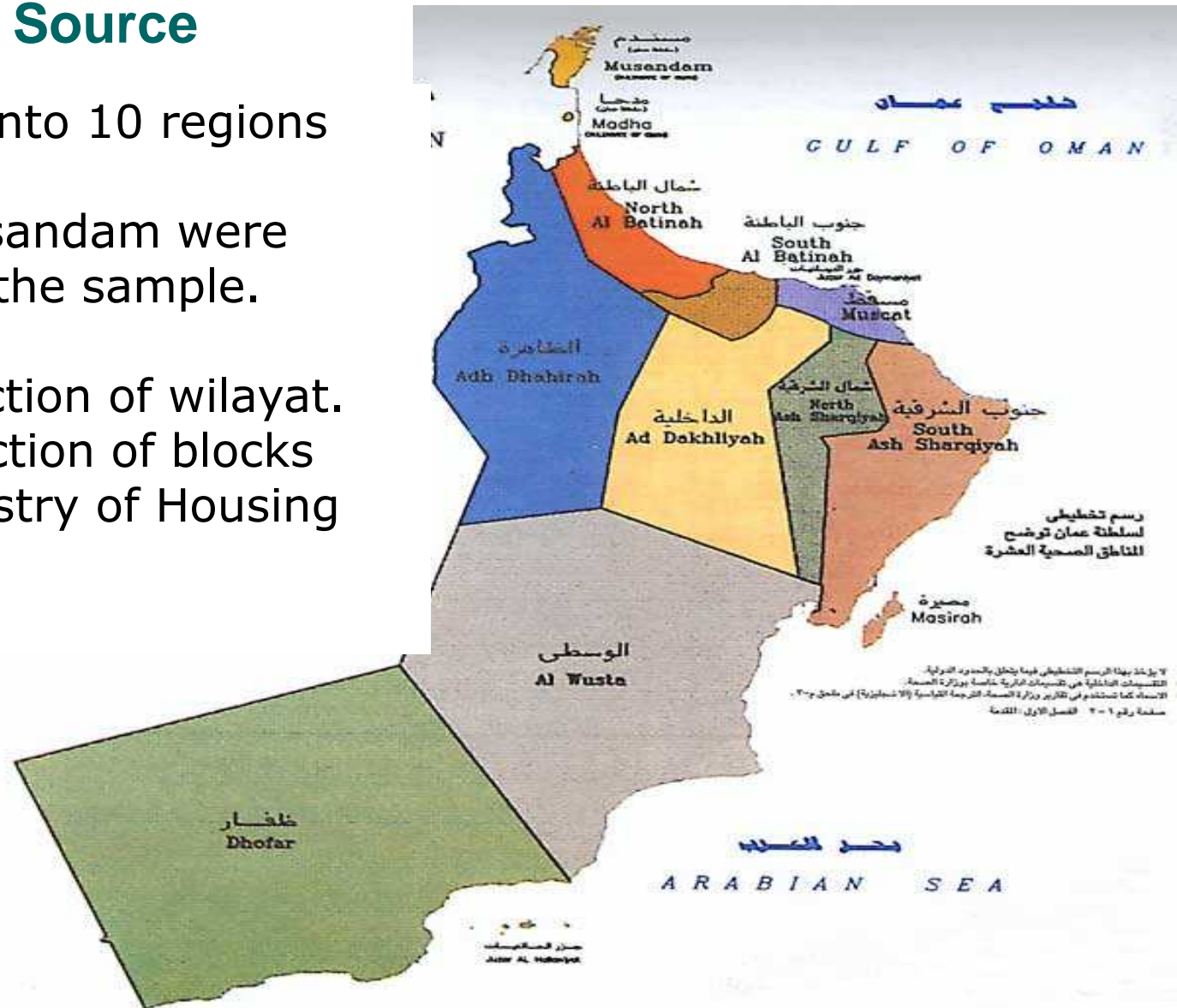
A) Land Price Index

Concepts and scope

- Quarterly Indicator measures the average price changes of land plot around the country
- Actual selling prices on a sample of blocks
- or prices estimated by local real estate companies (in case of no transaction has been made during the month)

Sample & Data Source

- ❑ Oman divided into 10 regions
- ❑ Al Wasta & Musandam were excluded from the sample.
- ❑ 1st stage: Selection of wilayat.
- ❑ 2nd stage: selection of blocks
(Blocks as Ministry of Housing definition)

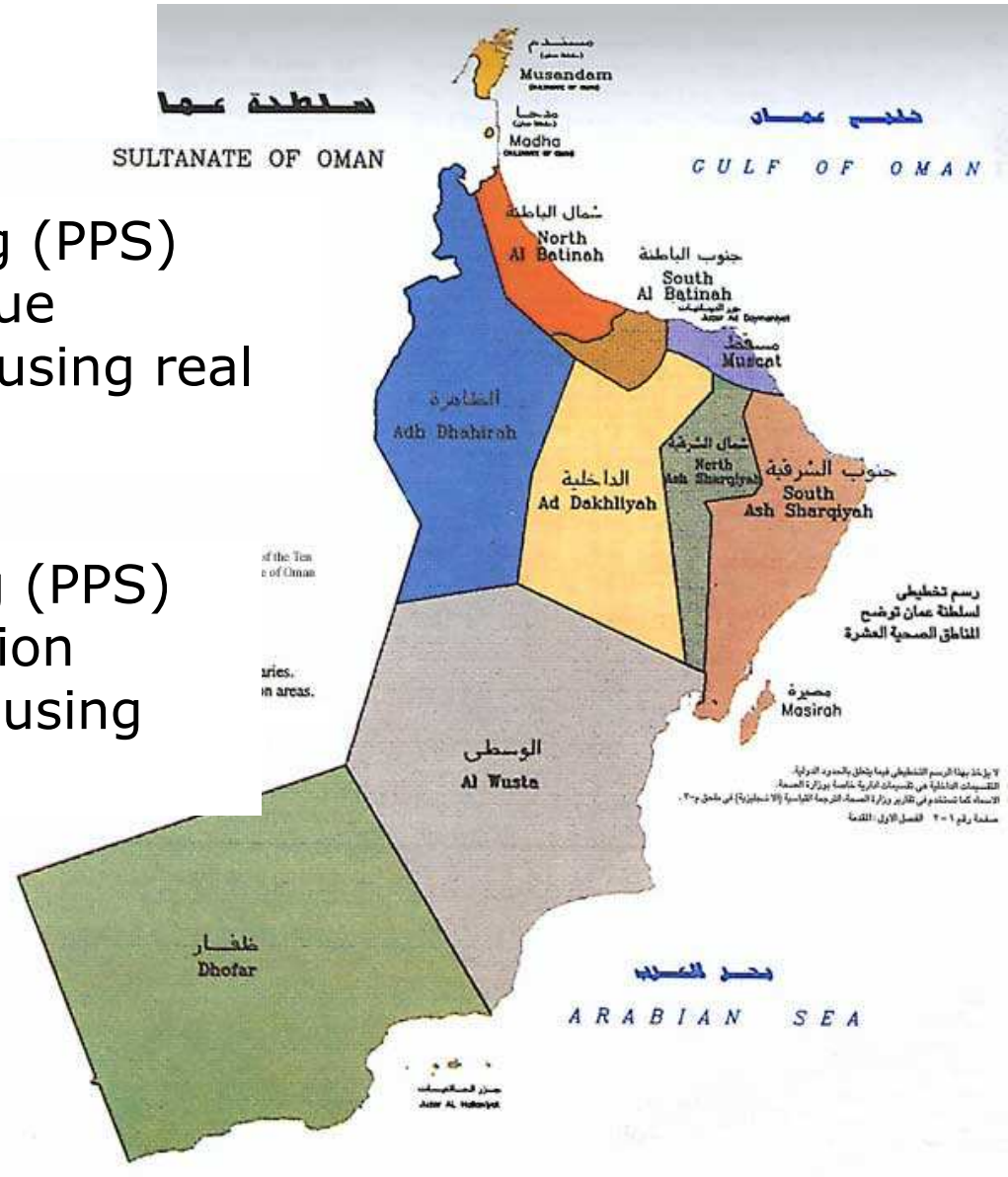


Sample & Data Source

- ❑ Sample of 20 wilayats using (PPS) sampling → Transaction value
- ❑ The frame → Ministry of Housing real estate register

- ❑ Sample of 175 blocks using (PPS) sampling → No. of transaction
- ❑ The frame → Ministry of Housing real estate register

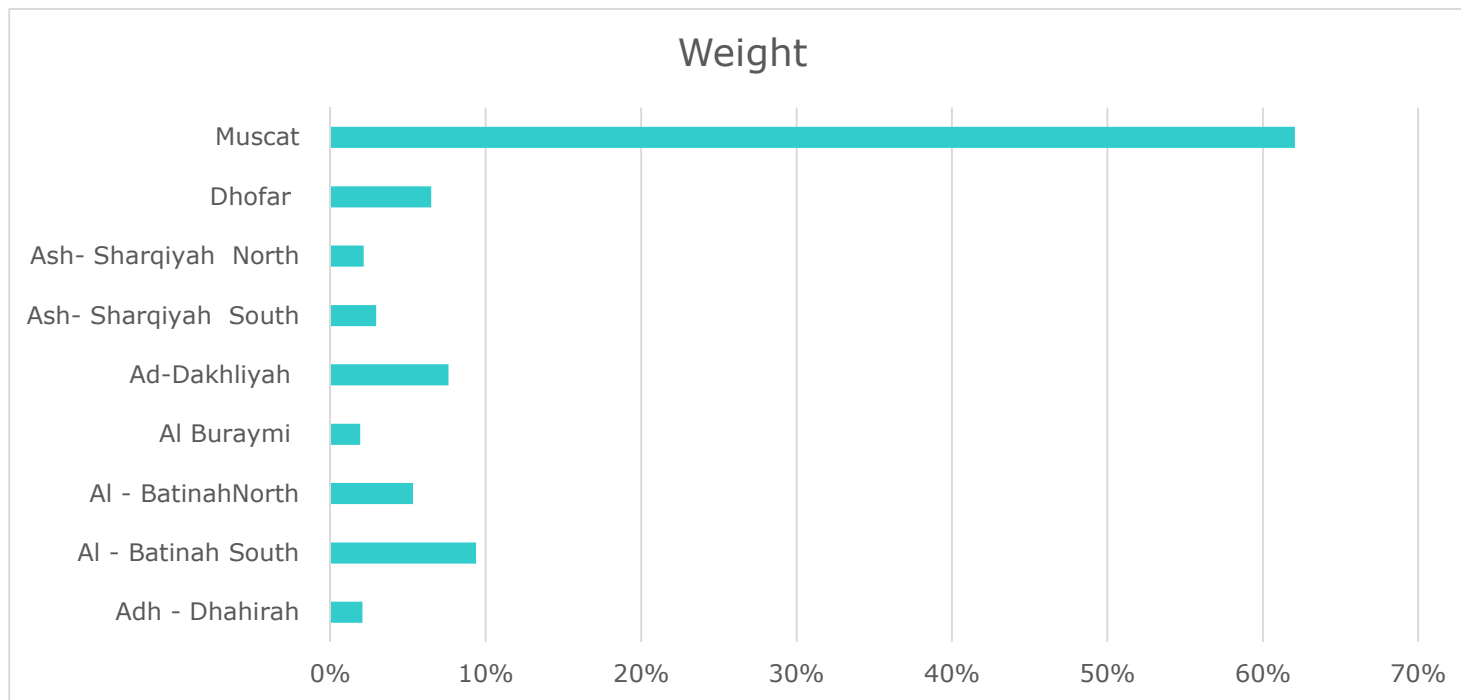
- ❑ 100 estate agencies



A) Land Price Index weights

- The Index weighted based on total value transactions

Figure 1. LPI Weights Structure



LPI Questionnaire

The data collected during (Feb. , May, Aug. , Nov.) and includes:

- Actual average price of actual selling transactions
- Estimated price based on knowledge of market prices
- Plot area in square meter
- Is the plot empty or built-on
- Number of transaction

B) Construction Input Price Index

Concepts and scope

- Quarterly Indicator measures the average price changes of construction sector inputs; materials, labor, plant & other costs.
- This inputs is measured for different construction types; residential, non residential & infrastructure.

B) Construction Input Price Index

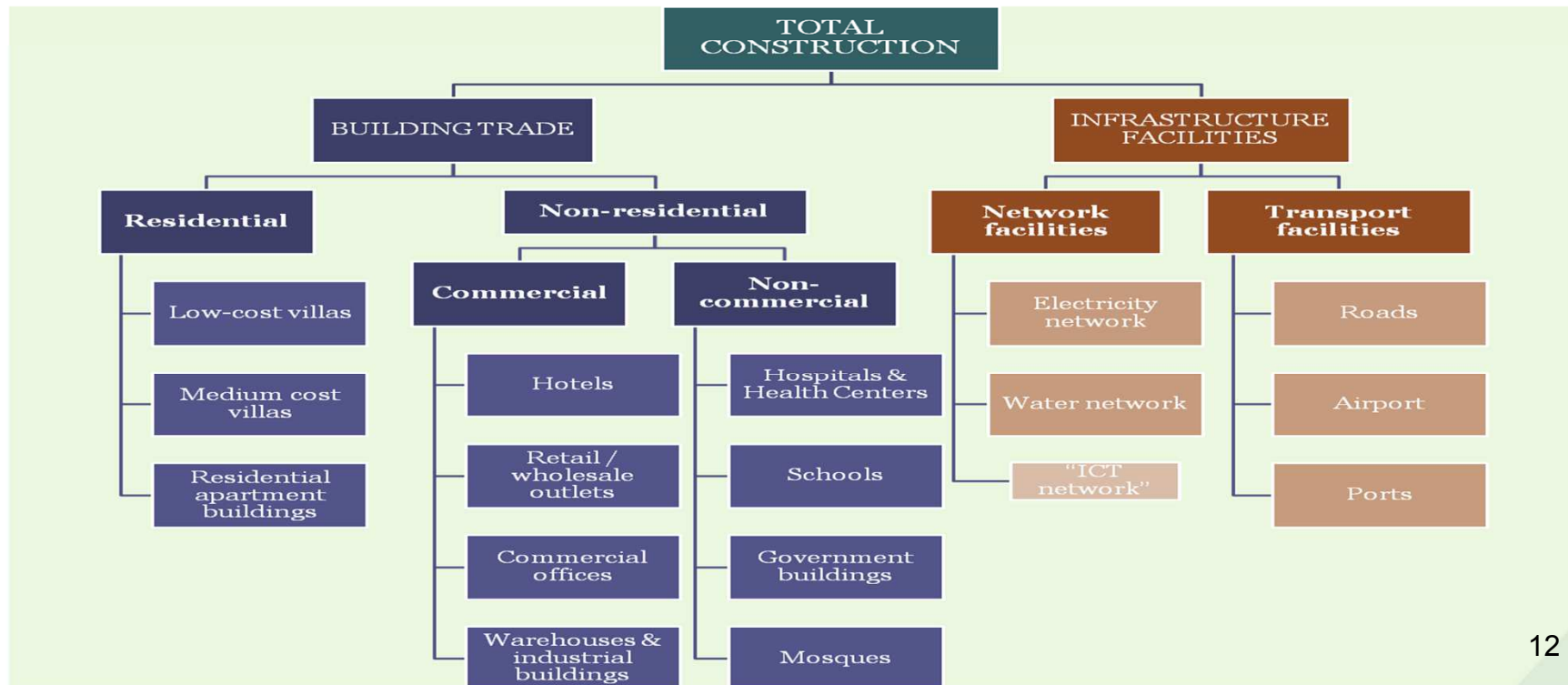
Construction types

- 1st satge was to determine the projects or the construction types:
- Using → tender board data, building permits data , discussion with construction companies and others sources
 - Residential buildings
 - Villas → low cost – medium cost - high cost
 - Apartment buildings
 - Non-residential buildings
 - Commercial
 - Non-commercial
 - Other construction
 - Transport infrastructure
 - Networks

Over-all structure

- The weight structure is identified individually for different types
- The CIPI is compiled separately for the two main types of construction (Building & Infrastructure)

Figure 2. CIPI overall Structure



Inputs structure and weights

- 2nd stage: Building type level weights:
Source: Sample of actual project BoQs from tender board analyzed by quantity surveyors:
- Quantity surveyors task:
 - Defined the inputs
 - Highly detailed cost structure for all inputs
 - Cost shares within each construction type
 - Cost share matrix (Construction type, cost element)
 - NCSI staffs defined the basket items by asking the building materials companies and other sources for the fast moving items

Construction inputs

Figure 3. CIPI Inputs

Material	Labor	Plant	Overheads
<ul style="list-style-type: none"> • Concrete and aggregates • Precast Concrete Blocks • Steel • Waterproofing • Timber • Doors and windows • Finishes • Mechanical installations • Sanitary ware • Air conditioning • Electrical installations • Etc. 	<ul style="list-style-type: none"> • Directors & Other Senior Admin Staff • Engineers & Professionals • Technicians and Associate Professionals • Administrators and Clerks • Workers • Plant & Machine Operators • Services Workers 	<ul style="list-style-type: none"> • Excavating & Earth Moving Equipments • Compacting Equipments • Mixing Equipments • Transporting Equipments • Hoisting Equipments • Other Equipments 	<ul style="list-style-type: none"> • Construction costs • Support • Miscellaneous

Cost share matrix (Construction type, cost element)

Figure 4. Cost share matrix (Weights)

		Low-cost villa	Medium cost villa	Apartment building	Commercial retail / wholesale	Combined res./comm. building	Commercial office	Hotels	Warehouse & industrial	Government office	Education building	Health building (Hospital)	Health building (Health)	Mosques
		12.1%	33.4%	15.2%	3.9%	5.9%	5.9%	2.0%	2.0%	6.9%	6.9%	2.0%	2.0%	2.0%
Materials		56.9%	60.1%	58.9%	61.2%	60.9%	62.1%	62.9%	57.7%	63.6%	56.4%	64.0%	58.4%	61.0%
1	Concrete and aggregates	12.5	12.8	10.5	4.7	9.1	7.1	7.3	9.9	8.4	14.1	7.7	8.6	10.3
2	Precast Concrete Blocks	2.9	2.9	1.6	0.6	1.4	0.8	1.5	0.8	1.5	3.6	1.6	1.5	1.3
3	Steel	11.0	8.9	11.1	23.1	11.0	8.3	4.7	26.4	9.5	9.5	5.6	6.8	10.0
4	Waterproofing	6.8	4.1	2.0	0.6	1.1	1.3	0.7	1.9	1.3	3.0	2.2	2.6	6.4
5	Timber	3.0	5.7	6.2	2.0	7.1	3.1	10.6	1.7	4.0	5.9	3.2	7.7	5.1
6	Doors and windows	5.7	4.0	3.3	1.4	5.5	6.3	2.3	3.1	4.3	2.4	1.3	2.2	0.8
7	Finishes	6.6	8.8	10.0	2.1	8.1	5.4	6.4	1.6	9.4	7.1	5.2	4.5	9.9
8	Conveying system	-	-	-	1.0	1.6	2.2	1.5	-	2.1	-	1.4	-	-
9	Mechanical installations	3.1	3.0	4.5	2.8	4.9	2.8	3.7	2.1	1.7	1.6	6.9	4.7	0.9
10	Sanitaryware	0.4	0.6	1.0	0.2	0.8	0.7	3.1	0.0	0.8	0.6	1.1	2.6	0.1
11	Building management system	-	-	-	1.1	-	0.4	-	-	-	-	1.7	-	-
12	Air conditioning	0.8	6.7	3.5	8.3	5.0	8.8	10.5	4.7	10.1	2.4	10.9	7.1	12.1
13	Electrical installations	3.9	2.7	5.4	13.5	5.4	14.8	10.5	5.4	10.6	6.3	15.1	10.2	4.0
Labor		25.2%	23.4%	24.4%	20.1%	22.2%	18.4%	20.7%	19.3%	20.5%	22.9%	20.1%	23.0%	22.7%
1	Skilled	20.8	19.1	20.0	17.0	18.7	14.9	16.9	15.8	16.8	18.3	16.6	18.6	18.5
2	Semi Skilled	0.3	0.5	0.6	0.6	0.4	0.6	1.0	0.6	0.5	0.6	0.5	0.9	0.3
3	Unskilled	4.1	3.8	3.7	2.6	3.1	2.9	2.8	2.8	3.1	4.1	3.0	3.4	3.9
Plant		6.7%	6.3%	6.1%	6.1%	6.4%	5.6%	5.1%	10.7%	5.1%	9.4%	4.7%	8.1%	6.0%
P1	Excavating & Earth Moving Equip	1.7	1.3	0.9	0.6	0.4	0.9	0.1	4.5	0.4	3.5	0.4	2.6	1.3
P2	Compacting Equipments	0.7	0.5	0.5	0.4	0.3	0.4	0.2	1.4	0.3	1.3	0.3	0.8	0.6
P3	Mixing Equipments	0.5	0.4	0.3	0.0	0.3	0.1	0.2	0.1	0.2	0.4	0.2	0.2	0.3
P4	Transporting Equipments	-	-	-	-	-	-	-	-	-	-	-	-	-
P5	Hoisting Equipments	2.3	2.4	2.2	2.9	2.7	2.8	2.3	3.1	2.7	2.4	2.3	2.5	1.8
P6	Other Equipments	1.5	1.6	2.2	2.1	2.7	1.3	2.3	1.7	1.6	1.8	1.5	2.0	2.1
Overheads and profits		10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
O1	Construction costs	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
O2	Support	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
O3	Miscellaneous	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

Cost share matrix (Construction type, cost element)

Figure 5. Cost share matrix (Weights)

		WEIGHTS						
		All buildings	Cost Element Share	Roads	Port	Airport	Electricity	Water
Materials		59.8%	100.0%	28.0%	35.8%	46.3%	74.2%	47.9%
1	Concrete and aggregates	10.9%	18.3%	8.2	20.0	6.1	-	-
2	Precast Concrete Blocks	2.2%	3.7%	2.0	-	10.7	-	-
3	Steel	10.4%	17.4%	3.7	10.2	0.7	-	-
4	Waterproofing	3.2%	5.4%	0.3	1.1	-	-	-
5	Timber	5.1%	8.6%	1.2	3.4	0.4	-	-
6	Doors and windows	3.9%	6.6%	-	-	-	-	-
7	Finishes	7.8%	13.1%	-	1.1	-	-	-
8	Conveying system	0.5%	0.8%	-	-	-	-	-
9	Mechanical installations	3.2%	5.4%	0.9	-	7.3	-	47.9
10	Sanitaryware	0.7%	1.2%	-	-	-	-	-
11	Building management syst	0.1%	0.2%	-	-	-	-	-
12	Air conditioning	5.7%	9.6%	-	-	-	-	-
13	Electrical installations	6.0%	10.0%	-	-	-	-	-
14	Bituminous	-	-	6.6	-	14.0	-	-
15	Safety accessories	-	-	2.9	-	0.8	-	-
16	Road marking	-	-	0.1	-	0.1	-	-
17	Electrical installations	-	-	2.1	-	6.1	74.2	-
Labor		22.8%	100.0%	14.5%	20.0%	16.2%	5.1%	19.3%
1	Skilled	18.7	81.9%	9.5	12.2	9.5	3.9	14.9
2	Semi Skilled	0.5	2.2%	0.7	3.0	2.9	0.5	1.2
3	Unskilled	3.6	15.8%	4.4	4.7	3.8	0.8	3.2
Plant		6.4%	100.0%	42.3%	29.1%	22.6%	4.8%	17.8%
P1	Excavating & Earth Moving	1.3	21%	28.9	11.3	7.7	-	13.0
P2	Compacting Equipments	0.6	9%	3.2	1.9	2.0	-	0.5
P3	Mixing Equipments	0.3	5%	0.7	0.1	0.4	-	-
P4	Transporting Equipments	-	-	6.6	-	8.2	0.6	-
P5	Hoisting Equipments	2.4	38%	1.1	12.0	2.7	4.2	-
P6	Other Equipments	1.8	28%	1.8	3.7	1.6	-	4.3
Overheads and profits		10.0%	100.0%	15.0%	15.0%	15.0%	15.0%	15.0%
O1	Construction costs	0.04	40.0%	0.07	0.07	0.07	0.07	0.07
O2	Support	0.05	50.0%	0.06	0.06	0.06	0.06	0.06
O3	Miscellaneous	0.01	10.0%	0.02	0.02	0.02	0.02	0.02

Data Sources

- Building material
 - Building materials wholesalers & retailers
 - Wage and salary
 - Construction companies
 - Plant costs
 - Rentals of vehicles and machinery
 - Other measures
 - Proxy measures for some parts of the index
-
- 125 items from 156 Outlets
 - Around 1500 price each quarter + labor data
 - Coverage: Whole Sultanate, Muscat the largest source with over 50% of sources

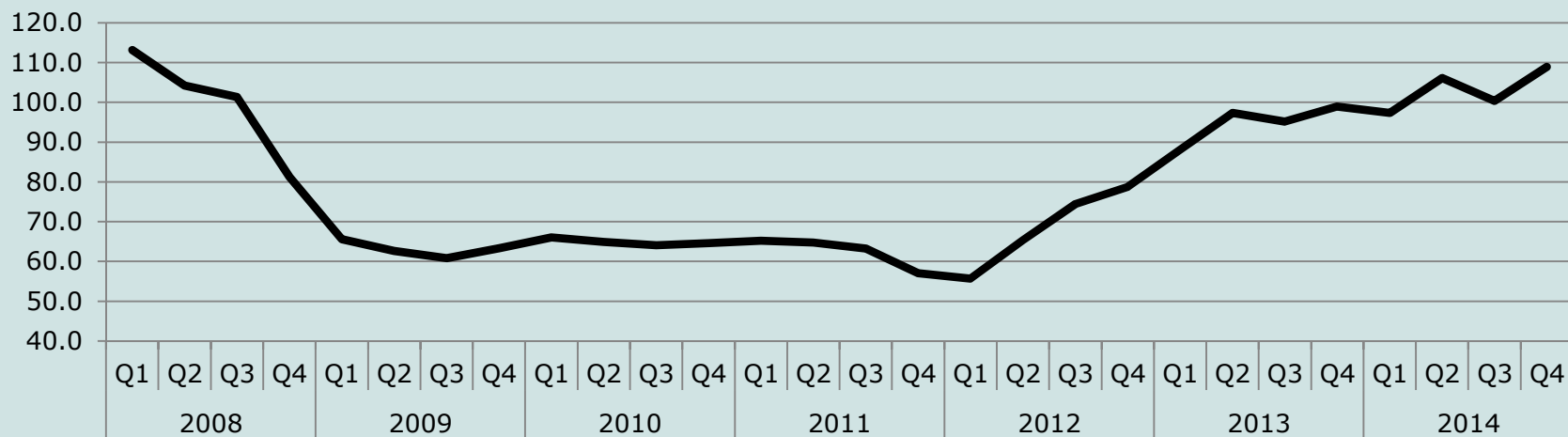
Dissemination

- LPI → Regional indices (The Sultanate, Muscat, Dhofar, ...)
- CIPI → The Sultanate index **by building types and Cost elements.**
- Currently, they are presented within the NCSI only.
- Will be released in the monthly statistical bulletin.
- A quarterly real estate bulletin will provide more detailed data.
- NCSI website

RESULTS

Figure 6. LPI for the Sultanate

Land Price Index _ The Sultanate

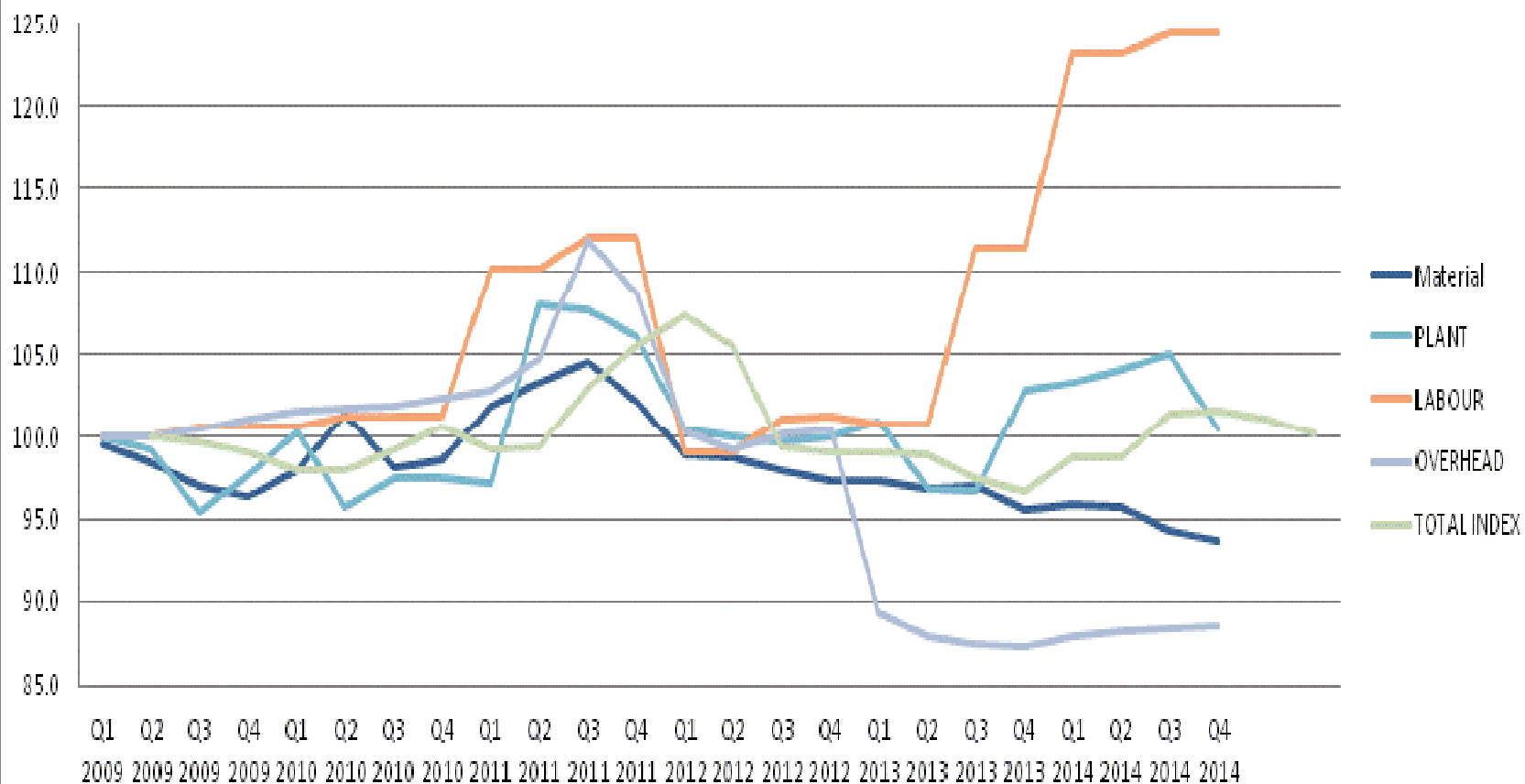


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Figure 7. CPI for Total Construction (Buildings & Infrastructure) by Cost Elements

Cost Element	Weight	Q2 2009	Q2 2010	Q2 2011	Q2 2012	Q2 2013	Q1 2014	Q2 2014	Q3 2014	Q4 2014
Material	54.1	98.4	101.4	103.27	98.76	96.93	95.86	95.72	94.35	93.79
M1 Concrete and aggregates	10.0	99.2	93.0	87.07	100.62	100.64	100.42	100.82	100.58	100.99
M2 Precast Concrete Blocks	2.5	99.7	87.6	85.73	99.26	100.73	100.74	99.80	100.05	100.55
M3 Steel	7.8	97.7	124.8	132.38	99.71	88.20	83.29	81.76	77.75	76.20
M4 Waterproofing	2.2	99.3	114.0	106.62	99.76	99.85	106.78	105.05	104.33	103.93
M5 Timber	3.5	95.7	90.1	95.90	101.37	100.27	101.34	99.53	100.52	100.08
M6 Doors and windows	2.5	100.4	101.4	97.61	95.72	95.52	95.98	92.06	91.90	91.17
M7 Finishes	4.9	100.4	101.1	105.11	98.33	99.04	103.73	103.41	99.69	99.57
M8 Conveying system	0.3	100.0	106.0	107.78	100.17	100.17	100.57	104.23	102.71	102.71
M9 Mechanical installations	2.7	90.5	88.0	91.58	92.71	91.83	92.49	92.75	91.83	89.42
M10 Sanitaryware	0.4	99.0	98.1	98.48	101.01	100.00	104.41	101.08	101.00	100.69
M11 Building management system	0.1	98.3	104.0	112.05	-	-	-	-	-	-
M12 Air conditioning	3.4	100.0	105.3	104.51	102.27	98.56	94.15	101.80	93.32	93.05
M13 Electrical installations	4.9	96.2	106.4	115.57	93.74	92.12	89.60	86.30	85.87	87.65
M14 Infrastructure materials	8.9	99.7	95.6	99.76	99.31	100.58	96.42	98.08	99.09	96.83
PLANT	14.1	99.2	95.8	108.00	100.01	96.93	103.34	104.05	105.05	100.51
LABOUR	19.9	99.9	101.3	110.17	98.99	100.79	123.22	123.22	124.50	124.50
OVERHEAD	11.9	100.0	101.7	104.65	99.14	87.95	87.86	88.31	88.42	88.49
TOTAL INDEX	100.0	99.0	100.6	105.48	99.03	96.63	101.40	101.48	101.14	100.21

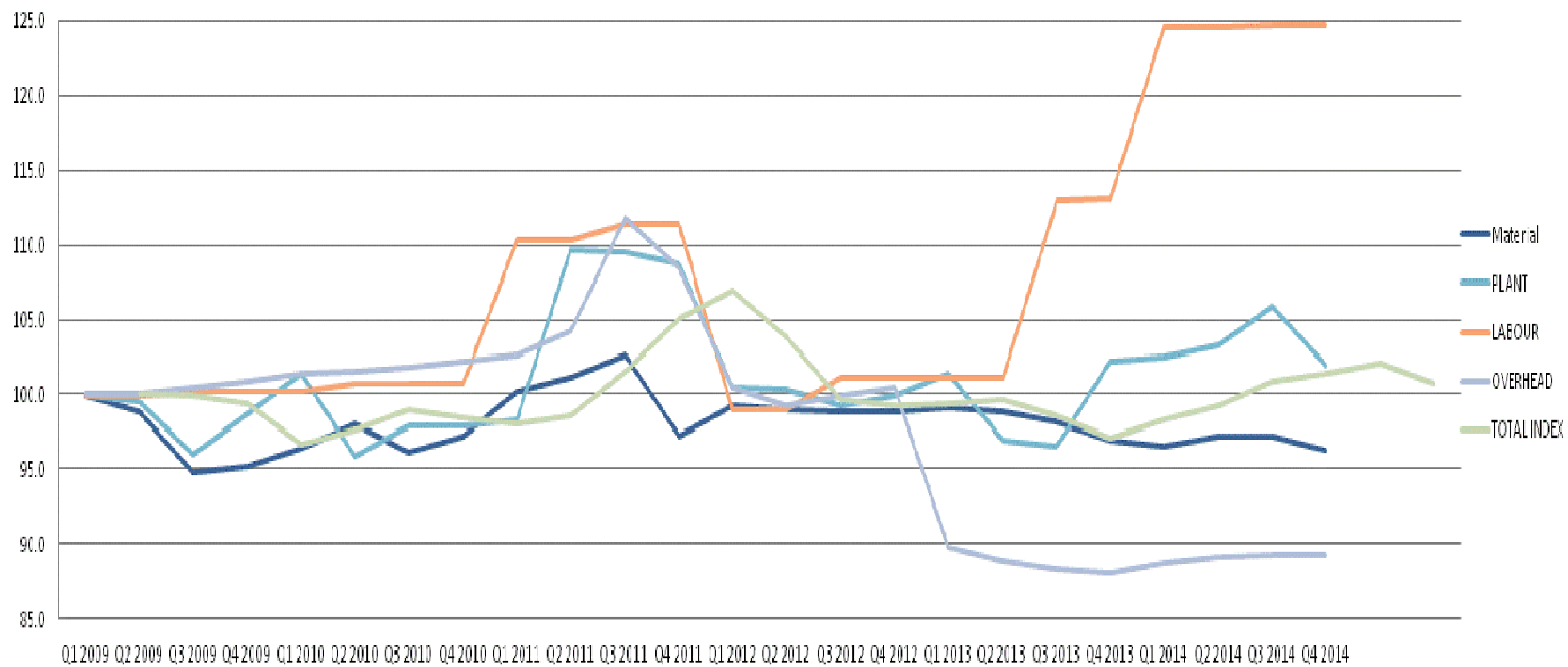
Figure 8. CIPI for Total Construction (Buildings & Infrastructure) by Cost Elements



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Figure 9. CIPI for Infrastructure by Cost Elements

Cost Element	Weight	Q2 2009	Q2 2010	Q2 2011	Q2 2012	Q2 2013	Q1 2014	Q2 2014	Q3 2014	Q4 2014	
Material	45.1	98.8	98.1	101.10	98.92	98.79	96.55	97.17	97.23	96.22	
M1	Concrete and aggregates	8.4	99.6	94.4	88.39	-	-	-	-	-	
M2	Precast Concrete Blocks	3.0	97.1	81.8	80.27	98.87	100.78	102.70	101.33	101.33	102.70
M3	Steel	3.6	98.3	126.0	133.74	90.96	80.47	76.22	74.77	70.27	69.02
M4	Waterproofing	0.4	99.9	96.4	96.92	89.66	89.15	88.10	88.10	88.11	87.96
M5	Timber	1.2	96.5	94.1	98.20	101.28	98.66	101.55	99.02	100.31	100.46
M6	Doors and windows	0.00	0.00	0.00	-	-	-	-	-	-	-
M7	Finishes	0.3	97.2	92.7	95.49	101.74	96.18	100.11	99.69	100.73	100.80
M8	Conveying system	0.00	0.00	0.00	-	-	-	-	-	-	-
M9	Mechanical installations	1.9	97.7	98.2	105.55	99.61	103.68	102.81	103.76	102.28	101.05
M10	Sanitaryware	-	-	-	-	-	-	-	-	-	-
M11	Building management system	-	-	-	-	-	-	-	-	-	-
M12	Air conditioning	-	-	-	-	-	-	-	-	-	-
M13	Electrical installations	3.2	93.6	111.5	126.38	99.80	98.57	95.04	92.77	93.09	93.93
M14	Infrastructure materials	23.1	99.7	95.6	99.76	99.31	100.58	96.42	98.08	99.09	96.83
	PLANT	25.8	99.6	95.8	109.73	100.27	96.88	102.55	103.31	105.90	101.96
	LABOUR	14.1	99.9	100.7	110.37	98.96	101.08	124.60	124.60	124.75	124.75
	OVERHEAD	15.0	100.0	101.5	104.22	99.18	88.77	88.71	89.10	89.20	89.27
	TOTAL INDEX	100.0	99.3	98.4	105.10	99.31	97.12	100.88	101.41	102.14	100.68

Figure 10. CPI for Infrastructure by Cost Elements



Challenges

- **LPI:**
 - Some times we have few available prices → estimated prices based on agent knowledge
 - large differences in prices within a block due to plot location (corner, near the main road, ...), other factors → we ask for a typical type of plot
- **CIPI :**
 - Labor data (response rate, ...)

Conclusion

- The real estate Index is an experimental indicator that combines the two indices (LPI & CIPI)
- The aim is to summarize the two different sources of inflation in real estate, the asset (LPI) & physical construction cost (CIPI)
- Our Plan: other indices:
 - for new houses (in practice normally dwellings)
 - for existing constructions (*re-sale price for existing dwellings*)

Thank you