Covid-19 Impact on Residential Construction

Barry Keogh May 6th, 2020

CONSULTING

Introduction

- Covid-19 has halted construction activity. A phased restart of construction activities on sites will commence at the end of May.
- Site social distancing measures that <u>must</u> to be in place will have an impact on site productivity and delivery programmes this will have significant impact on output.
- The pause in construction from March to May, decreased productivity & extended programmes will have an impact on housing completions each month.
- Reduced completions will create further difficulties in the housing market and increase the housing supply deficit.
- On account of the economic crisis caused by Covid-19 it is forecast that incomes will fall with knock on affordability issues increasing – this puts further pressure on residential development viability. Impact on construction costs is unclear.
- Mitigation measures to safely minimise impact on output need to be considered

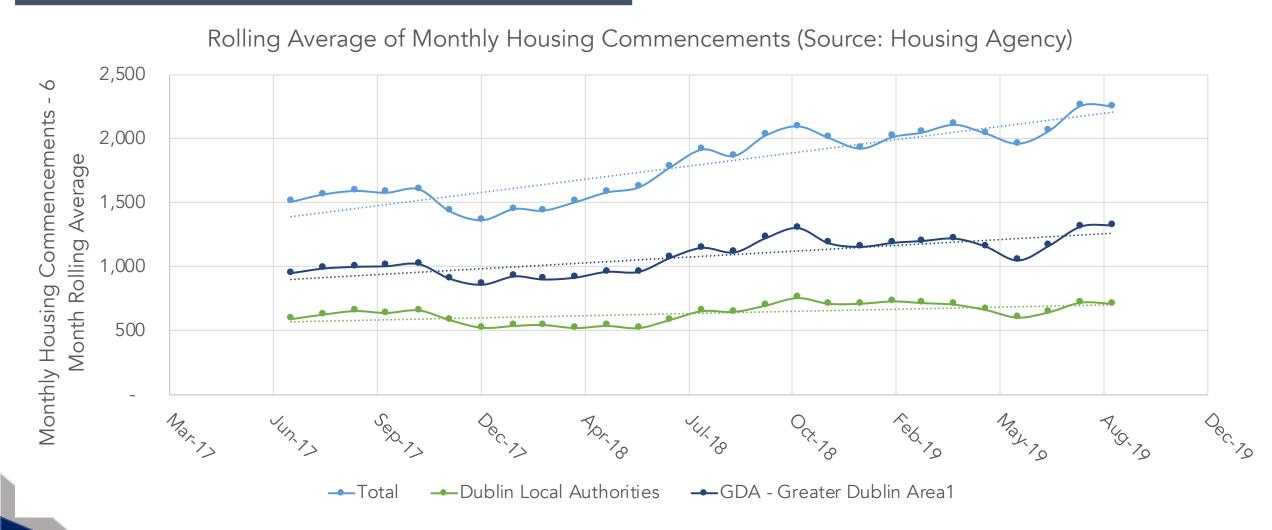


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The trend in housing commencements has been upward for some time...

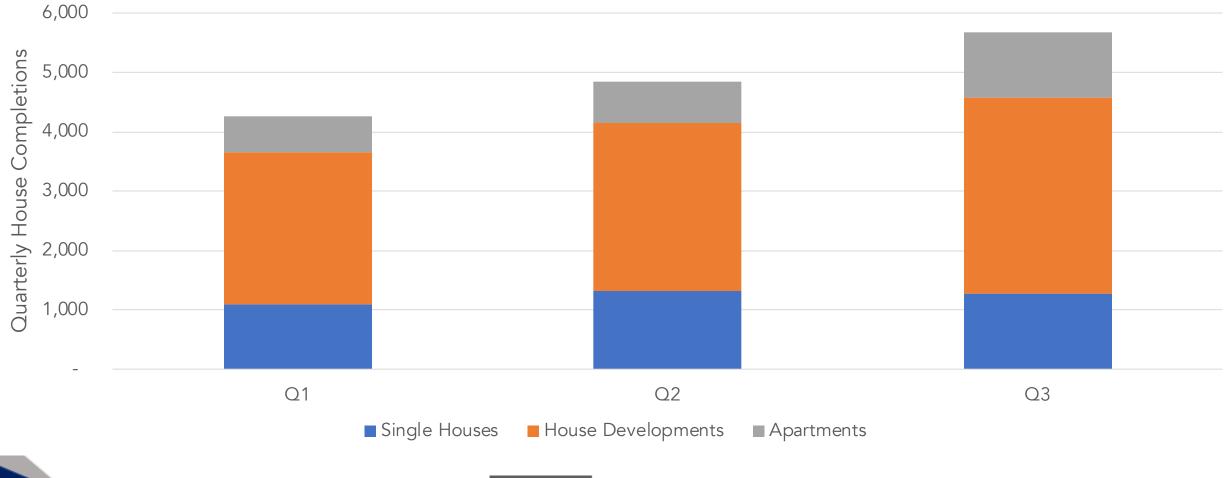




MARKET TRENDS

... with output of over 5,000 units being completed on average during each quarter in 2019

Home Completions to Q3 2019. Source Housing Agency



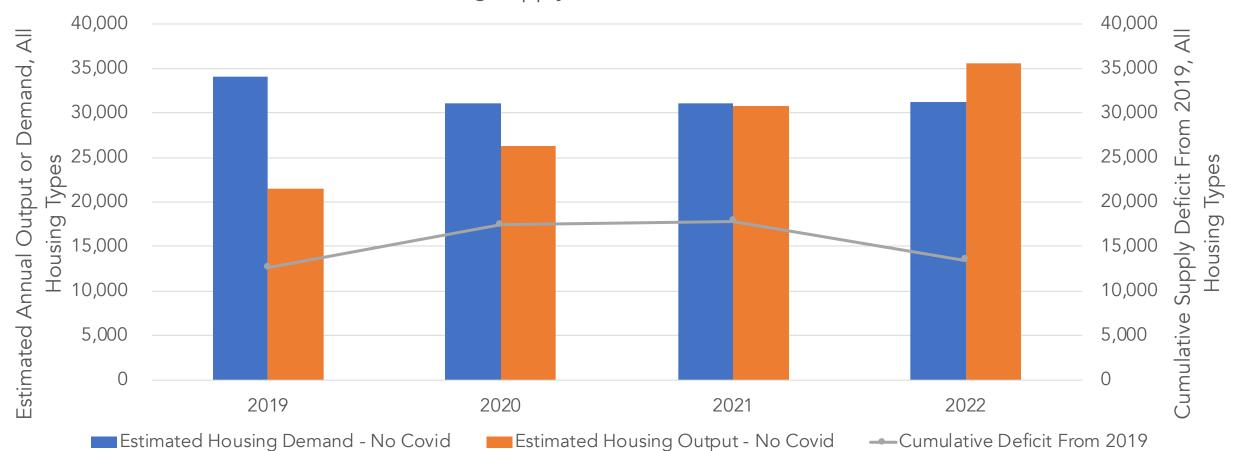
Source: Housing Agency Data



MARKET TRENDS

The projected increase in output (based on commencement data) would have started to eat into housing supply deficit in 2021

Housing Supply Deficit Trend - No Covid



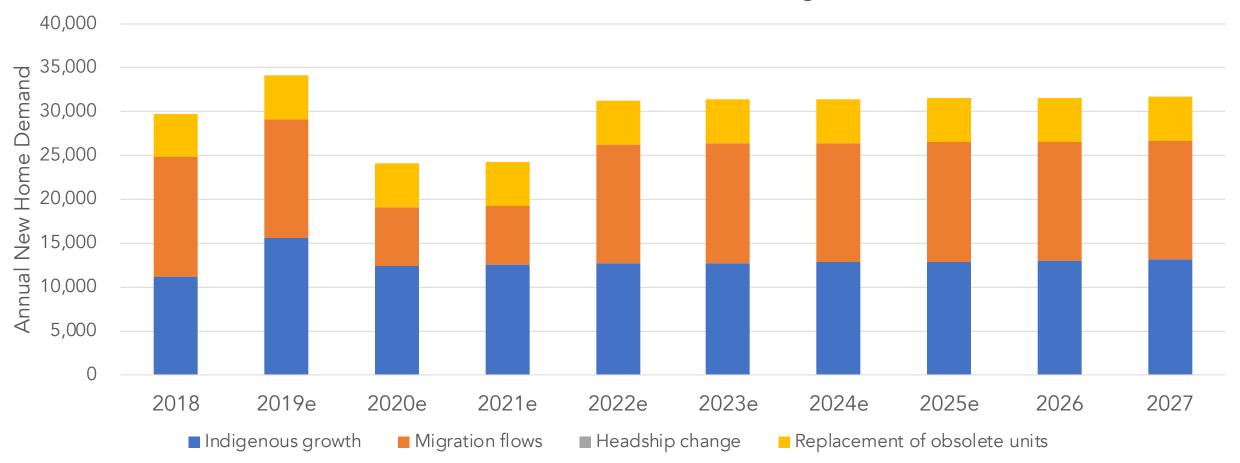
Source: Calculations based on Housing Agency Data



POPULATION FORECAST

Global travel restrictions will reduce migration flows and possibly lower housing demand in 2020 & 2021 from estimate of 34k units in 2019

Demand Forecast With Covid. 17k Net Migration



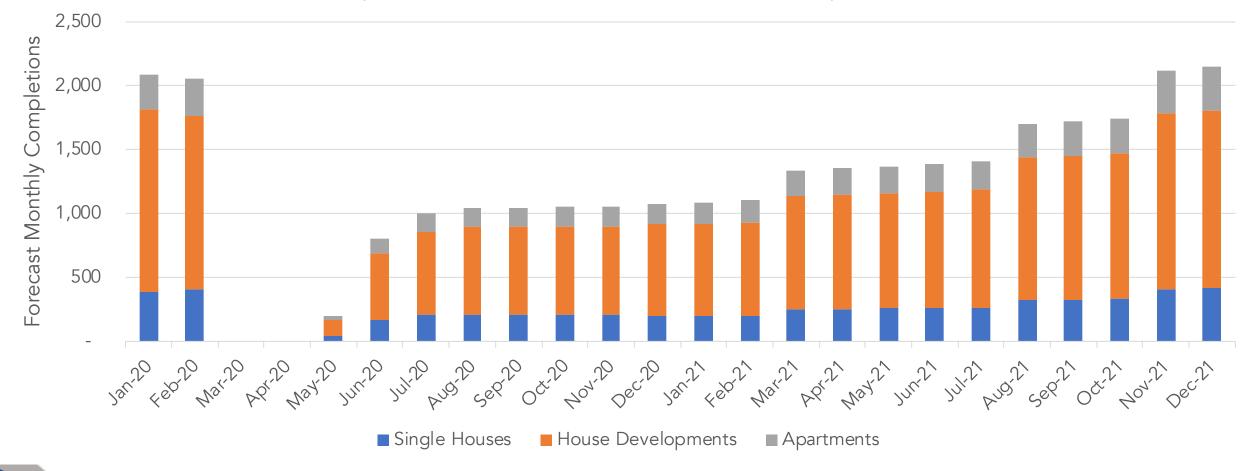
Source: Keogh Consulting Calculations



CONSTRUCTION OUTPUT & PRODUCTIVITY IMPACT

Output will be impacted by social distancing productivity loss, extended programmes and phased ramp up of site activities.

Impact of Covid-19 On Monthly Housing Completions



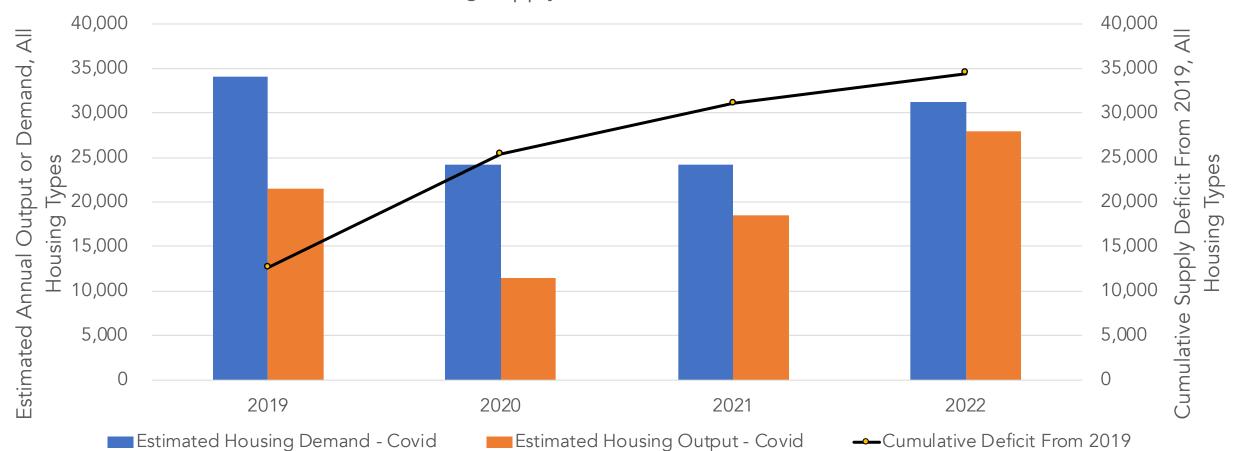
Source: Keogh Consulting Calculations



HOUSING SUPPLY DEFICIT

Even with reduced new household formation the post 2019 housing supply deficit will increase adding to problems that existed before Q2

Housing Supply Deficit Trend - With Covid

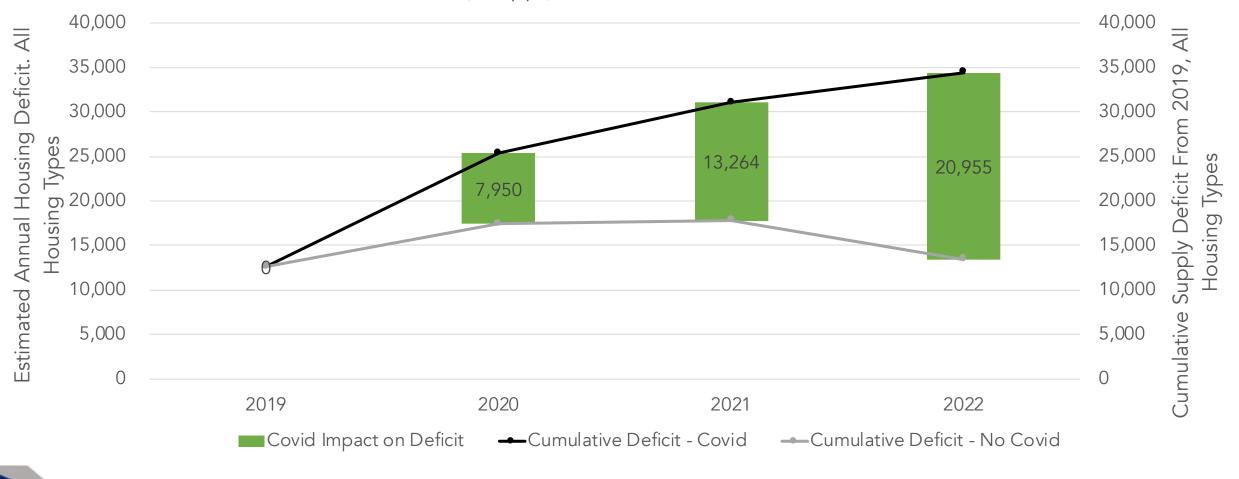


Source: Keogh Consulting Calculations

HOUSING SUPPLY DEFICIT

The reduced construction output could increase housing supply deficit by 21k units in period to 2022

Housing Supply Deficit Trend - With Covid



Source: Keogh Consulting Calculations

DEVELOPMENT VIABILITY

Impact on construction costs unclear. A moderate increase in rates will have impact on viability of development given affordability limits

			Construction Costs (€ per sq m)								
		-10%	-5%	€ 1,340	5%	10%	15%				
ч. Ψ	293,000	6.5%	2.7%	(0.9%)	(4.2%)	(7.3%)	(10.2%)				
ice ∖AT sg ∱	309,000	12.3%	8.3%	4.6%	1.1%	(2.2%)	(5.3%)				
Sale Pri incl V 1,100 s Hous	325,000	18.1%	13.9%	10.0%	6.3%	2.9%	(0.3%)				
	341,000	23.9%	19.5%	15.4%	11.6%	8.0%	4.6%				
	358,000	29.6%	25.0%	20.8%	16.8%	13.0%	9.5%				
		Profit on Development Cost									
		at site price € 50K per site									

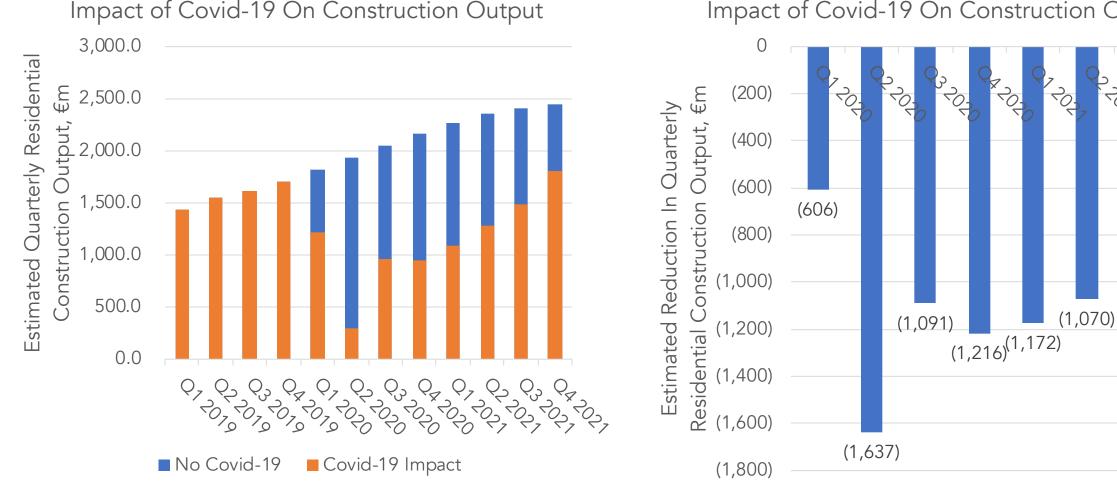
		Construction Costs (€ per sq m)								
		-10%	-5%	€ 2,460	5%	10%	15%			
t 33€	420,000	7.5%	3.2%	(0.7%)	(4.4%)	(7.7%)	(10.9%)			
Price € AT 98′ I ft tment	444,000	13.3%	8.8%	4.7%	0.8%	(2.8%)	(6.1%)			
	467,000	19.1%	14.4%	10.0%	6.0%	2.2%	(1.3%)			
Sale F incl V/ sq Apart	490,000	24.8%	19.9%	15.3%	11.1%	7.2%	3.5%			
A inc S	514,000	30.5%	25.4%	20.6%	16.2%	12.1%	8.3%			
		Profit on Development Cost								
		at site price € 50K per site								

			Affordabil	ity Gap/(Su	rplus) to Vi	able House	Unit (325k) with 13.59	% VAT on N	ew Resider	ntial Units	
Income	46,366	(135,065)	(130,171)	(125,277)	(120,383)	(115,488)	(110,594)	(105,700)	(100,806)	(95,912)	(91,018)	(86,123)
	50,616	(112,033)	(106,690)	(101,347)	(96,004)	(90,662)	(85,319)	(79,976)	(74,633)	(69,290)	(63,948)	(58,605)
	55,806	(85,437)	(79,546)	(73,656)	(67,765)	(61,874)	(55,984)	(50,093)	(44,202)	(38,312)	(32,421)	(26,531)
	60,480	(61,485)	(55,101)	(48,717)	(42,333)	(35,949)	(29,565)	(23,181)	(16,797)	(10,413)	(4,029)	2,355
loh	65,154	(37,534)	(30,656)	(23,779)	(16,901)	(10,024)	(3,147)	3,731	10,608	17,485	24,363	31,240
Household	74,982	11,074	18,989	26,904	34,818	42,733	50,648	58,563	66,477	74,392	82,307	90,221
	84,809	57,504	66,456	75,408	84,360	93,312	102,264	111,216	120,168	128,860	137,341	145,822
SS	100,382	131,078	141,597	151,635	161,673	171,712	181,750	191,788	201,826	211,864	221,903	231,941
Gross	146,656	340,628	355,293	369,959	384,624	399,290	413,955	428,621	443,287	457,952	472,618	487,283
Ū	192,929	547,008	566,300	585,593	604,886	624,179	643,472	662,765	682,058	701,351	720,644	739,937
		3.50x	3.60x	3.70x	3.80x	3.90x	4.00x	4.10x	4.20x	4.30x	4.40x	4.50x
	Central Bank Household Income Multiplier											

Source: Keogh Consulting Calculations



A reduction in residential construction output of €4.6bn in 2020 & €3.8bn in 2021 is estimated based on reprofiled cash flows



Impact of Covid-19 On Construction Output

Source: Keogh Consulting Calculations



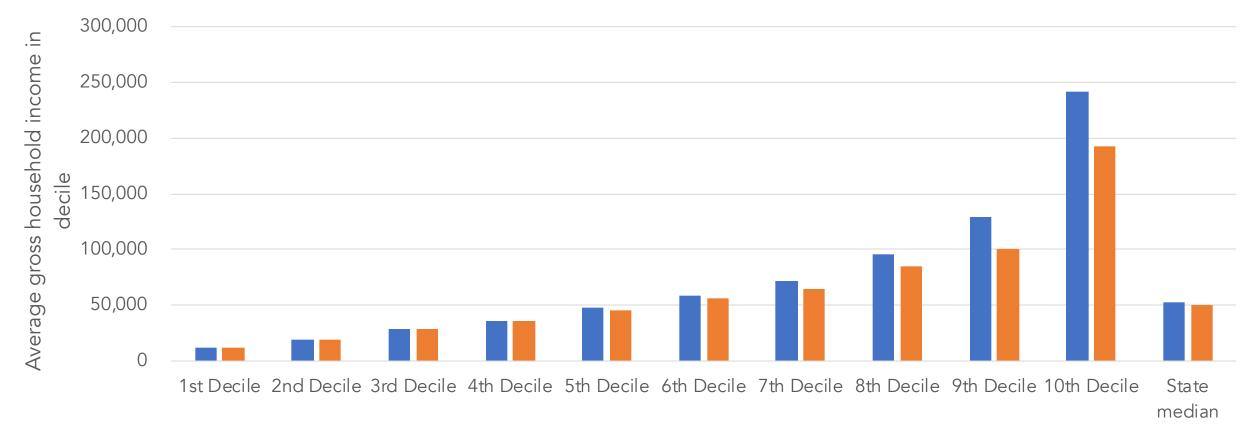
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The shutdown of the economy is forecast to reduced gross household incomes (even with Government support in place)...

Q1 2020 Post COVID

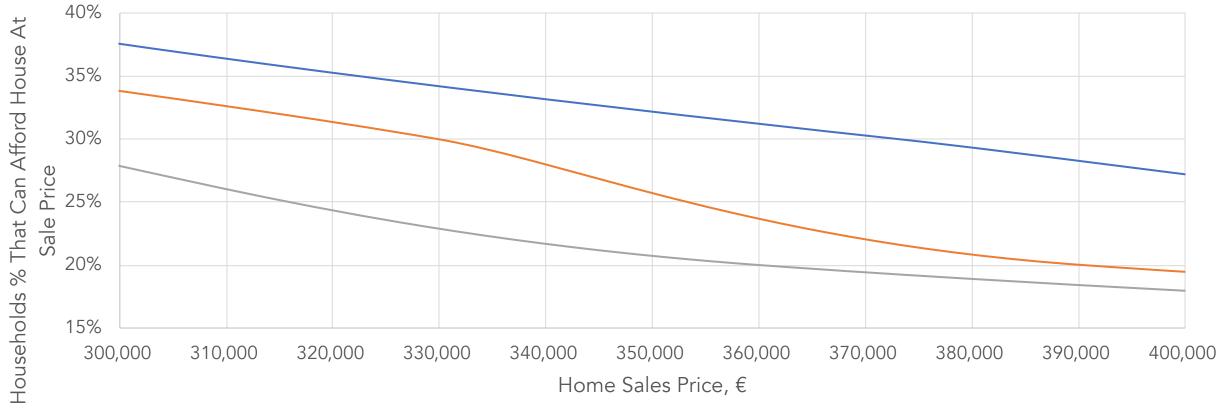


Household income decile



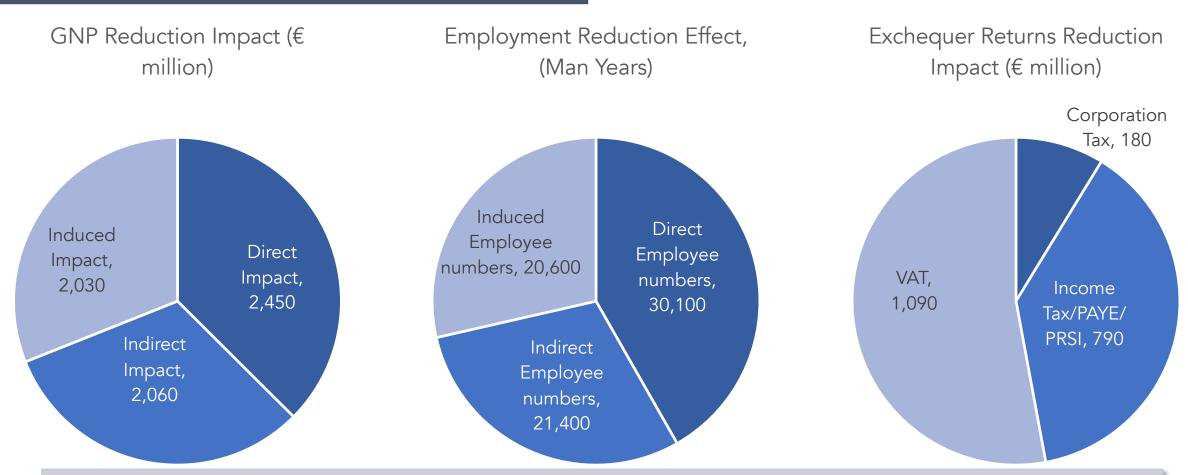
...this fall in gross incomes reduces the number of purchasers able to afford a home at a given price point – suppressing demand & viability.

COVID-19 Impact On Number Of Purchasers At Viable Price Level



-Q1 2020 -COVID - With PUP, TWSS & Employer Top Up -COVID - With No Policy Response

The estimated €4.6 billion reduction in 2020 output will have significant impact on employment, GNP & exchequer returns



A stimulus package (to increase demand by improving affordability) could have positive cost benefit enabling existing construction capacity to be utilised by starting on sites that may currently not be viable.

Source: Keogh Consulting Estimates

MITIGATION

Range of operational actions can be implemented to maximise overall output. Compliance with H&S considerations <u>not</u> negotiable.

- Follow all site health & safety operating guidance including <u>HSA</u>, <u>CIF</u>, <u>RIAI</u>, <u>ACEI</u>, <u>NSAI</u> etc.
- Consider independent review and auditing of implementation of distancing measures on all site operations. Create strong verification and compliance processes.
- Manage all sites as combined programme of projects with resources allocated to programme across all (not individual) sites. Put in place programme management office.
- Obtain flexibility in contractor or subcontractor terms to move between sites from day to day – consider procurement across sites and not for specific projects. Evaluate "make v buy" for all critical activities.
- Detailed day by day scheduling of activities. Continual review of actual v planned and update as necessary to drive site performance, productivity & output.
- Update project appraisals to reflect new programmes, costs etc. Prioritise projects & consider bringing forward site openings to progress sites in parallel – spreading resources among sites – when feasible.



Summary

- Operational measures need to be put in place to mitigate reduction in construction output. Need to target performance beyond H&S compliance.
- Global travel restrictions will reduce migration flows and possibly lower housing demand in 2020 & 2021 from estimate of 34k units in 2019 to below 25k in 2020.
- A reduction in residential construction output of €4.6bn in 2020 & €3.8bn in 2021 is forecast. The impact on construction costs is unclear.
- In spite of lower housing demand the reduced construction output will increase housing supply deficit by 21k units in period to 2022.
- The estimated €4.6 billion reduction in 2020 output will have significant impact on employment, GNP & exchequer returns.
- A well designed stimulus package (+ive cost benefit) could improve viability of projects currently on hold on account of affordability issues in the market & minimise negative economic impact. This could help to get construction started on a wider number of sites and minimise fall in housing output and increase in supply deficit.



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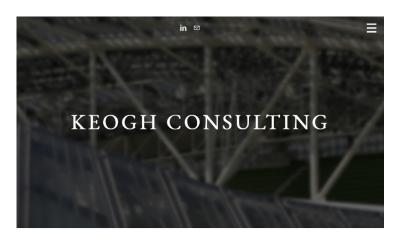
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