



An Phríomh-Oifig Staidrimh
Central Statistics Office

Redeveloping Ireland's Residential Property Price Index (RPPI)

Ottawa Group, 10-12 May 2017, Eltville, Germany

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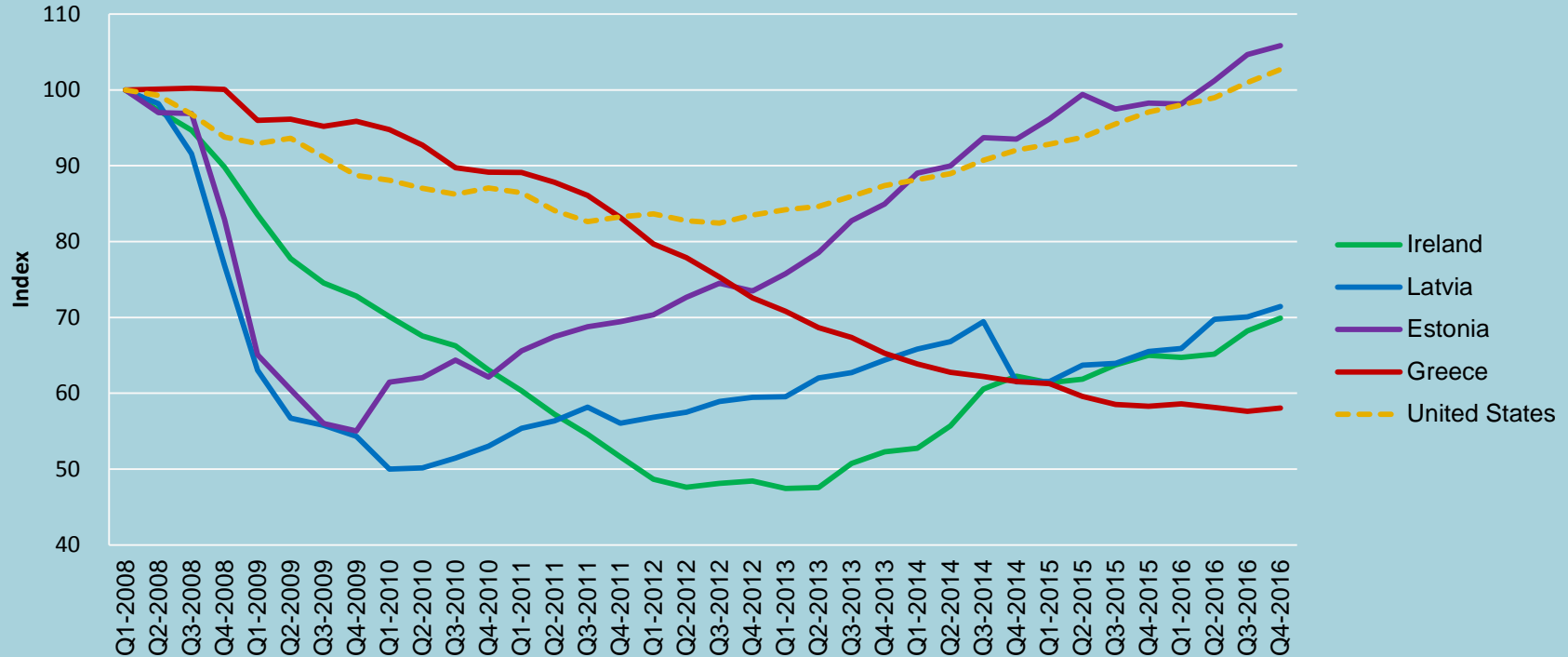
Presentation Topics

- Economic Context
- Original RPPI
 - *Need for a new RPPI*
- New RPPI
 - *New data sources*
 - *Data matching*
 - *Price model*
 - *Data smoothing*
 - *Data progressivity*
 - *New indices*
 - *Additional indicators*
- New versus original RPPI
- Ongoing developments



Economic Context

Residential Property Price Index (2008Q1=100)





Original RPPI

- Project commenced 2009
- Based on mortgage transaction data
- 12 month rolling time dummy method
- Monthly index
- Four elementary indices
 - (1) Dublin houses, (2) Dublin apartments,
 - (3) National (excluding Dublin) houses, (4) National (excluding Dublin) apartments
- Series start January 2005
- Launched March 2011

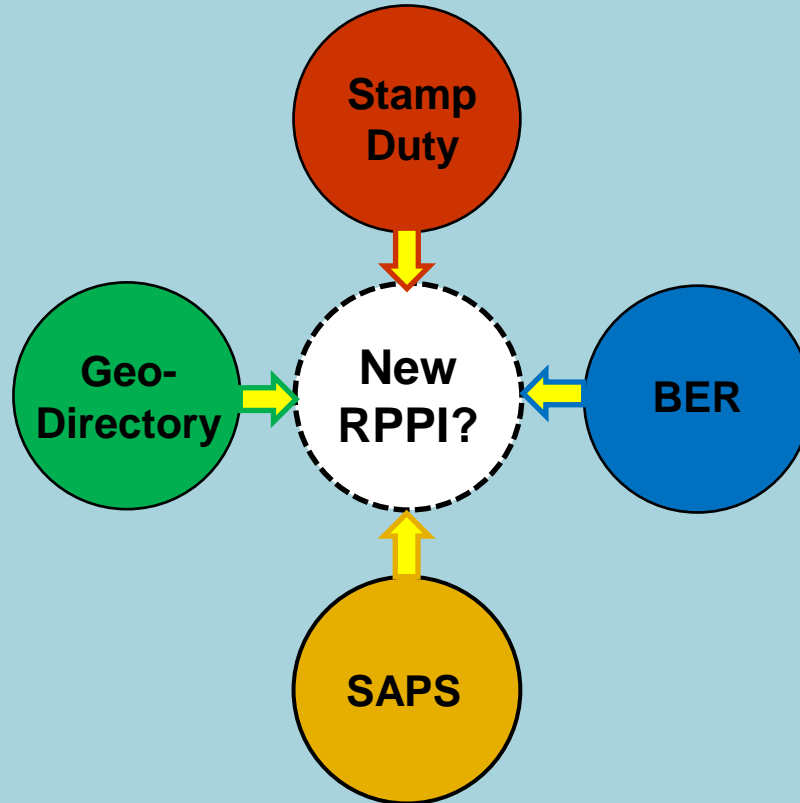


Need for a New RPPI

- Compliance issues
- Risk of bias
- Data quality issues
- Micro-location
- Self-builds
- Time lag issues

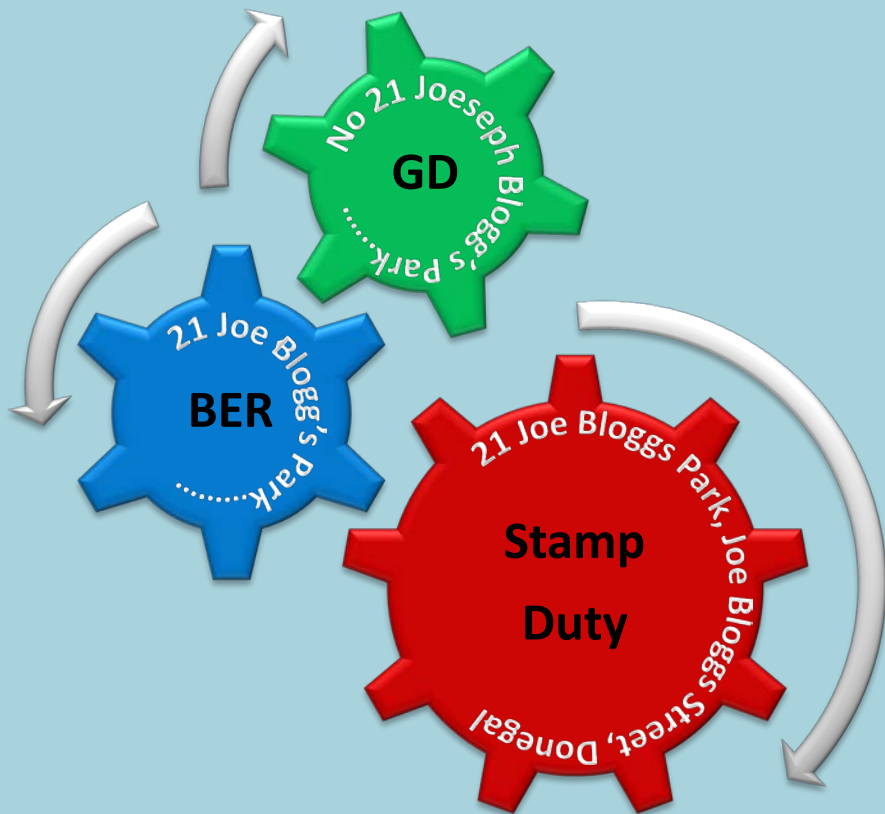


New Data Sources





Data Matching (1)



Stamp Duty: 21 JOE BLOGGS PARK, JOE BLOGGS STREET, DONEGAL		
#	<i>BER: Matching Address Candidates</i>	<i>JWD</i>
1	21 JOE BLOGG'S PARK, JOE BLOGG'S ST DONEGAL	0.8982
2	21 JOE BLOGG'S AVENUE, JOE BLOGG'S STREET DONEGAL	0.8714
3	21 JOE BLOGG CRESCENT, JOE BLOGG STREET DONEGAL	0.8698
4	22 JOE BLOGG'S PARK, JOE BLOGG'S STREET DONEGAL	0.8553
5	19 JOE BLOGG'S PARK, JOE BLOGG'S STREET DONEGAL	0.8354
6	20 JOE BLOGG'S PARK, JOE BLOGG'S STREET DONEGAL TOWN	0.8283
7	23 JOSEPH BLOGGS PARK, JOSEPH BLOGGS STREET DONEGAL	0.8026
8	32 JOE BLOGGS PARK, DONEGAL Co. DONEGAL	0.7586
9	'THE COTTAGE' JOE BLOGGS PARK, JOE BLOGGS STREET DONEGAL	0.7342
10	24 PAIRC JOE BLOGG, BOTHAR JOE BLOGG DUNN NA NGALL	0.6841



Data Matching (2)

Address matching results			
Year	Stamp Duty Returns	BER Pairings	
		no.	percent
2010	14,830	11,133	75%
2011	13,639	10,105	74%
2012	19,431	15,278	79%
2013	23,163	18,429	80%
2014	32,917	23,177	70%
2015	36,952	27,515	74%
2016	36,290	27,043	75%

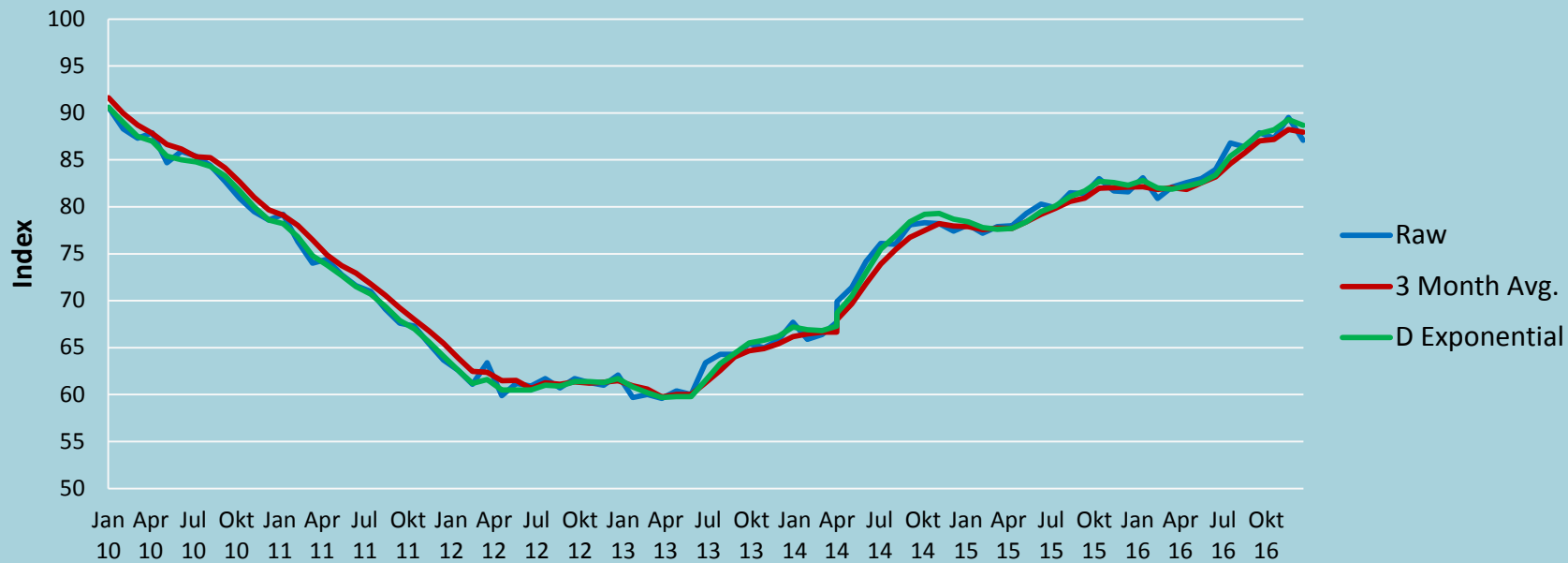
Price Model

$$\ln(p_{it}) = x_{it}\beta + \delta_t D_t + \mu_{it}$$

<i>Explanatory Variables</i>		
Source	Variable	Categories
BER Data	Floor area (m ²)	Continuous variable
	Dwelling type	Detached, Semi-Detached, Terraced, Apartment
GeoDirectory	Eircode Routing Key	A41, A42, A45, A63, A67, etc.
Pobal	HP Deprivation Index	Continuous variable

Data Smoothing

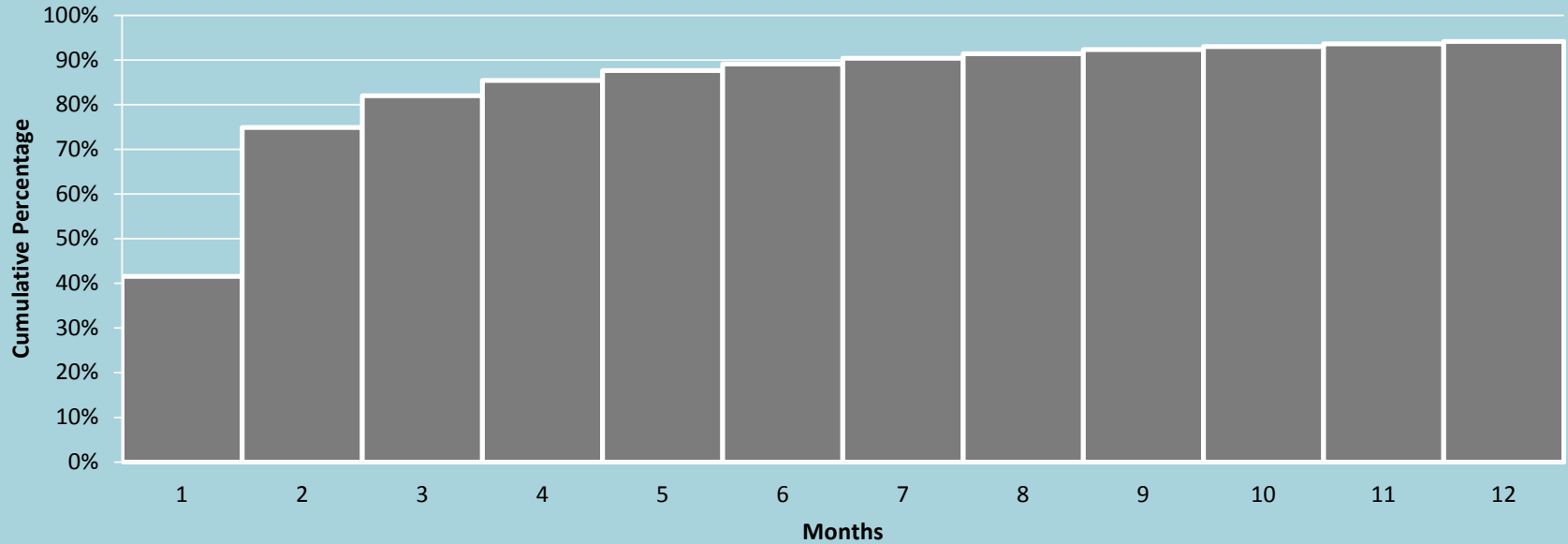
New National Index (Jan 2005=100)





Data Progressivity

Stamp Duty Return Availability

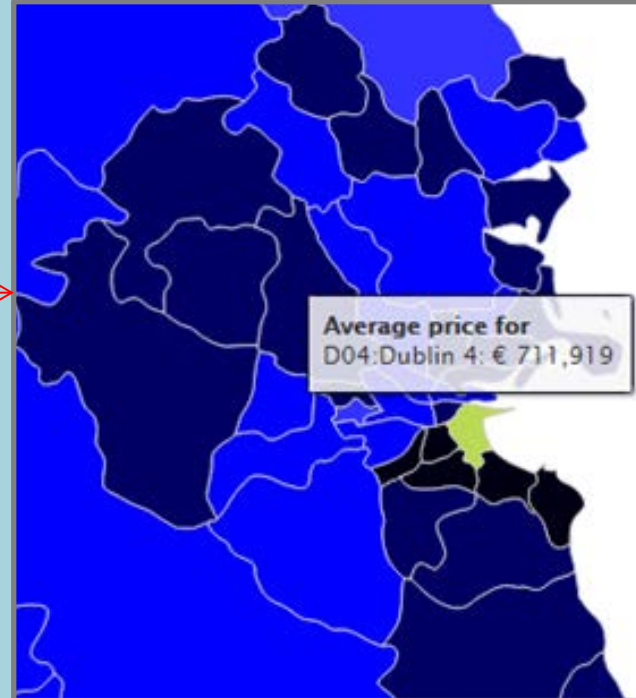
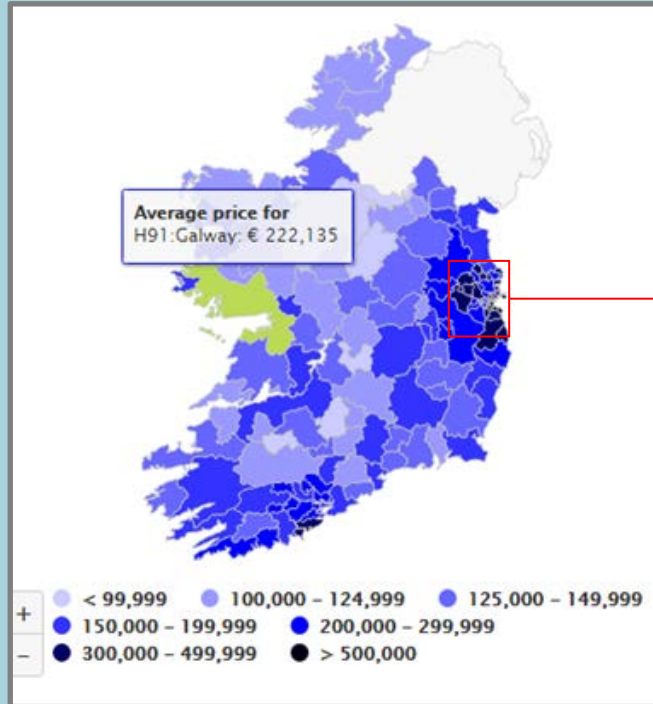


New RPPI Indices



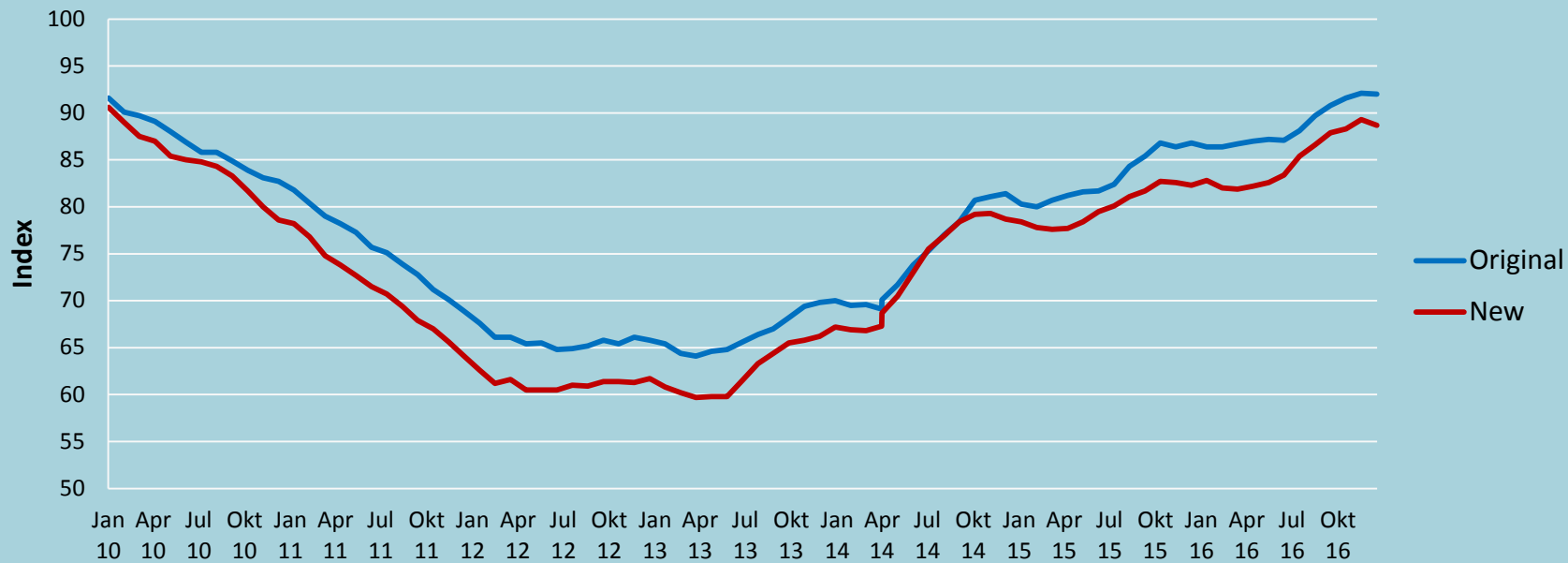
1. Border houses
2. West houses
3. Midland houses
4. Mid-East houses
5. *Dublin houses*
 - 5.1 Dublin City
 - 5.2 Dun Laoghaire-Rathdown
 - 5.3 Fingal
 - 5.4 South Dublin
6. South-East houses
7. South-West houses
8. Mid-West houses

Additional Indicators



New versus Original RPPI

National Index (Jan 2005=100)





Future Developments

- New and existing breakdown
- Web scraping
- Expanded additional indicators
- Plot size



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Thank You

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