

This document lists functional and content changes made to the MSCI Real Estate Analytics Portal and designated products.

Please note that measure definitions are described in the MSCI's Global Methodology Standards for Real Estate Investment via the MSCI Client Support Site: The [Client Support Site](#) (click here) temporarily requires separate sign in details.

(* Date Available is based on the next index or product publication date. All future dates are subject to change.,

as at 30 June 2017

Market Impacted	Feature	Product	Date Available *	Summary of the change
All	User Experience	Global Intel Global Intel PLUS	30-Jun-17	<p>The Data Set and Filter selection in Global Intel has been changed from a checkbox list to a card view. User feedback has indicated that card views are more compatible with mobile devices but also enable the provision of additional descriptive information.</p> <p>Data Set cards are organised by region and then alphabetically. We have also introduced a Favourites group in response to client feedback. This group will show your most commonly used data set, which will appear at the top of the page.</p> <ul style="list-style-type: none"> ▶ To select a data set click on its card (it will change colour), to de-select it click on it again. ▶ Click on several cards to select multiple cards at once. ▶ Click on the "..." to obtain more information about the data set.
All	Analytics Portal Functionality	Global Intel Global Intel PLUS	30-Jun-17	<p>Data Set SEARCH: Use the Search bar to quickly filter on data sets. The feature will search any text you can see on a card: data set name, contributing data sets (in the case of composite indexes), frequency and reporting period.</p> <p>e.g.</p> <ul style="list-style-type: none"> ▶ a search for "Belgium" will find the Belgium (A) data set as well as Eurozone (A), Global (A) and Pan Europe (A). ▶ a search for "2016" will return only those data sets with an Analysis Period ending in 2016. You can also search "Dec-2016" to be more specific. ▶ a search for "quarterly" will return all data sets with default quarterly asset valuation cycle. Note: Frequency does not denote publication frequency!
All	Analytics Portal Functionality	Global Intel Global Intel PLUS	30-Jun-17	<p>Cross-segmented segmentations (two distinct segmentations that have been combined to compute all available permutations) can now be split out into separate columns in an export file. This will allow you to filter on the results based on one or more individual segments across the other. This is particularly useful for Global Intel PLUS users, who can define their own cross-segmentations.</p> <ul style="list-style-type: none"> ▶ e.g. If you split Global (A)'s Global Cities - Property Type Classification sectors segmentation in the spreadsheet export, you will be able to filter on (say) Offices and compare all office segments across each city.
All	Analytics Portal Functionality	Global Intel Global Intel PLUS	30-Jun-17	<p>Results Layout: You can now switch from Normalized results layout to Time Series (reporting periods side by side) or Transposed (measures side by side) on-screen.</p> <ul style="list-style-type: none"> ▶ Click on the "Timeseries View" button above the results data and select your option from the drop-down menu.
All	Analytics Portal Functionality	Global Intel	30-Jun-17	<p>Portfolio Analysis: Global Intel users will notice a new button Portfolio Analysis in the top menu bar and homepage. This is temporarily inactive for most users but watch out for upcoming updates from MSCI on the introduction of interactive portfolio analytics in the portal.</p>

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as at 10 May 2017

Market Impacted	Feature	Product	Date Available *	Summary of the change
UK (Annual), (Quarterly)	Segmentation change	Global Intel	09-May-17	<p>Following client feedback the UK Segment by Age segmentation has been amended by splitting the latest age band "> 1995" into two new segments: "1995 - 2010" and "> 2010".</p> <p>The Standard Retail segment was also updated to ensure it explicitly contains all retail assets that are not Shopping Centres and Retail Warehouses. This is now consistent between Annual and Quarterly data sets. Previously the quarterly data set allocated a small number of Retail assets into the Other category in certain circumstances.</p>
UK (Quarterly)	Segmentation change	Global Intel	09-May-17	<p>A segment in the UK Retail Type by Region segmentation has been redefined. The Standard Retail segment definition has been changed in line with the change made for UK Segment by Age (see above). As a result the respective segment results for the quarterly data set have been recomputed.</p>
UK (Annual), (Quarterly)	Segmentation change	Global Intel	09-May-17	<p>UK Property Type's Standard Shops segment definition has been amended to explicitly include Arcades and Unit Shops only, thereby allocating all other retail assets that are not categorized as Shopping Centres, Retail Warehouses, Department Stores or Supermarkets into "Other Retail". Whilst the previous definition matched some legacy products this was changed so that the "Standard Shops" segment is consistently defined when compared with other standard segmentations used across UK market data sets.</p>
Ireland (Q)	NEW Data Series	Global Intel	27-Apr-17	<p>Vacancy Rate - Financial introduced for quarterly Standing Investment and Same Store series.</p>

as at 21 April 2017

Market Impacted	Feature	Product	Date Available *	Summary of the change
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Non-UK	Report Content Change	IRIS	21-Apr-16	Remaining Lease Term (incl. Breaks) Segmentation: IRIS reports now show this segment including breaks. The "excl. breaks" version is still available for download from the application. Remaining Lease Term now also evaluates the headlease expiry dates for leasehold assets (previously ignored).
Non-UK	Report Content Change	IRIS	21-Apr-16	New segment node: All Property, Sector and Sub-sector pages now include an additional line for "rent free/pre-let segment".
Non-UK	Pre-defined Data Export change	IRIS	21-Apr-16	New Measures/Segmentations: Tenancy-level Floorspace, Rent per m ² (ft ²), Market Rental Value per m ² (ft ²), Market Rental Value now available for data export. Segmentation for Remaining Lease Term & Lease Expiry added.
Non-UK	Summary Dashboard Layout Change	IRIS	21-Apr-16	Remaining Lease Term (excl. Breaks) segmentation replaces Income over-rented.
Italy (A), Italy (B)	Segmentation change	Global Intel	21-Mar-17	Following client feedback the Property Type by Region segmentation has been enhanced by splitting the two Milan segments into Milan Centre, CBD Duomo, CDB Porta Nuova, Semi-Centre, Periphery and Hinterland. This was change was made to align with prevailing local market practices.
All	Analytics Portal Functionality	Global Intel	21-Apr-16	Results View: In addition to sorting individual columns you can now activate a context menu that provides a filter on column data (similar to spreadsheet filters).
All	Analytics Portal Functionality	Global Intel	21-Apr-16	Export Data: in addition to sorting individual columns you can now activate a context menu that provides a filter on column data (similar to spreadsheet filters).
All	Analytics Portal Functionality	Global Intel	21-Apr-16	Data Export: Users can now choose to split the labels of cross-segments (i.e. two-tiered segments) across multiple columns to facilitate better filtering and grouping in spreadsheets and analysis tools (such as pivot tables). Please note that when you use this option more columns will be added to the standard export file structure.
All	Analytics Portal Functionality	Global Intel PLUS	21-Apr-16	Opening data from results notification: The email notification informing users that their custom analyses have completed now include a link that directs the user straight to the data (rather than to the Saved Analysis results viewer).
All	Analytics Portal Functionality	Global Intel PLUS	21-Apr-16	Standard Geography: Following client feedback Standard Geography selection menus now sort alphabetically.

as at 27 January 2017

** - Global Intel data sets will be regenerated starting on the morning of 27 January 2017. All data sets will be re-run by close of 30 January 2017. It may take until this time for all changes to take

Market Impacted	Feature	Product	Date Available (from...)**	Summary of the change
All	New Global Intel 'look and feel'	Global Intel	27-Jan-17	User Interface Upgrade: Global Intel Whilst maintaining the overall flow of the application, we have responded to client feedback requesting a better user experience and ease of use. Please refer to the user guide for more detail on changes.
All	Same Store	Global Intel	27-Jan-17	Same Store definition: Measurement period aligned with analysis. Following client feedback, the way the same store filter is applied has changed. Whereas Global Intel always applied a 12 Month Same Store rule before, i.e. included only those assets in the respective sample for an entire 12 month period, the period now varies according to the measurement period selected. For example, if a 3-month measurement period is selected for a return series, the same store filter will include only those assets available to the sample for all 3 of the months leading up to each respective reporting date (Period). Previously published Same Store results have been removed in order to avoid confusion. There is no impact on 'Annual' results. Please note that all data sets will be re-generated by 30 Jan 2017 in order for this change to come into effect. As a result there may be some historic result changes for unfrozen data sets on other filters too. Please refer to the Measure Guide and Global Methodology Standard documentation for detailed rules on the inclusion rules for Same Store.
All	Data Series Change	Global Intel	27-Jan-17	Most recent Index series: An Index series will now show the <i>most recent consistent period</i> of performance. If there is a break in a return or growth series during the most recent reporting period (due to data quality or confidentiality criteria not being met) the historic index will continue to be published until a consistent period of performance is re-established. At that point, the index series will rebase from the start of the next consistent period. Therefore an Index series is now available for some historic periods that were previously not shown. Previously no index series was shown if the return for the most recent reporting period return was not available.
All	NEW Measure	Global Intel	(various)	Net Operating Income Growth will be introduced incrementally with each future Global Intel data set release. This measure is measurement period-specific and therefore exists in three variants: year on year (y-o-y), half year on half year (h-o-h) and quarter on quarter (q-o-q). Please refer the Measure Guide for further details. Please note: Net Income Growth was commonly used in legacy products, which was a growth measure based on <i>Rent Passing</i> and not a receivable net income. This has now been substituted with the measure Gross Rent Passing Growth .
UK	Measure label change	Multinational Intel, Global Intel	27-Jan-17	Net Income Receivable and its variants (per ft ² , per m ² , Growth, Yield) have been renamed to Net Operating Income (per ft ² , per m ² , Growth, Yield).
UK	NEW Data Series	Multinational Intel, Global Intel	27-Jan-17	Introduction of annualised and indexed series for Gross Rent Passing Growth, Equivalent Yield Impact, Equivalent Yield Shift .

UK	Segment label change	Global Intel	27-Jan-17	Prefixed "UK " to segmentation names used in UK markets.
UK (Annual), (Quarterly)	Segmentation change	Global Intel	27-Jan-17	UK Property Type and UK Property Type and Region now includes Healthcare and Residential. This has been standardised between the Quarterly and Annual data sets to provide improved comparability and alignment with the Standard Global Property Types.
UK	Segment label change	Global Intel	27-Jan-17	Amended segment labels for: <ul style="list-style-type: none"> UK PAS Segment for "PAS Office - Rest of South East" label UK Segment History for all "Retail Warehouses" segment labels
UK (Monthly)	NEW Segmentation	Global Intel	27-Jan-17	The segmentations UK PAS Segments has been added.
UK (Quarterly)	NEW Segmentation	Global Intel	27-Jan-17	The legacy 'Weighted Term to Expiry' analysis is now supported with a new segmentation called UK Segment by Remaining Lease Term (incl. breaks) Quartile Range .
UK (Quarterly)	Segment label change	Global Intel	27-Jan-17	Segmentation name and segment labels have been updated for those showing quartile ranges : <ul style="list-style-type: none"> UK Segment by MRV per m² Quartile Range UK Segment by Equivalent Yield Quartile Range <p>This was done to remove ambiguity and improve on conflicting conventions used between legacy products.</p>
UK (Quarterly)	NEW Segmentation	Global Intel	27-Jan-17	Regional Yield Quartile Analysis segmentations have been added to replace the legacy standalone spreadsheet. These are presented as three separate segmentations: <ul style="list-style-type: none"> UK Sectors by Region by Equivalent Yield Quartile Range All England Sectors by Equivalent Yield Quartile Range Central & Inner London Sectors by Equivalent Yield Quartile Range
UK (Annual)	NEW Segmentation	Global Intel	27-Jan-17	The segmentations UK Digest History and UK Healthcare - Property Types have been added.
UK	Data Set label change	Multinational, Global Intel	27-Jan-17	Data sets that are based on frozen source data and historical composition will have the label " Frozen " appended in their labels. Please note: The UK (Annual) will take on this label at it's next formal publication date (1 March 2017).
UK	NEW Measure	Global Intel	27-Jan-17	Income and Occupancy analysis is now supported by the following new measures: (Please note that the first two measures replace the single 'Reversionary Tenancies % Total' measure in legacy digest products. All other measures are a substitute for those used in the legacy UK digest products.) <ul style="list-style-type: none"> Number of Under-rented Leases % Total (Standard Units) Number of Leases Let at Market Rent % Total (Standard Units) Number of Over-rented Leases % Total (Standard Units) Number of Vacant Units % Total (Standard Units) <ul style="list-style-type: none"> Uplift from Under-Rented Leases % Rent Passing (Standard Units) Uplift % Rent Passing (Under- and Rack-rented Standard Units) <ul style="list-style-type: none"> Loss from Over-Rented Leases % Rent Passing (Standard Units) Loss % Rent Passing (Over-Rented Standard Units) <ul style="list-style-type: none"> Uplift from Vacant Units % Rent Passing (Standard Units) Uplift from Vacant Units % Market Rental Value (Standard Units) <ul style="list-style-type: none"> Reversionary Potential (Standard Units) Reversionary Potential (Let Standard Units)
Japan	NEW Measure	Global Intel	30-Jan-17	Gross Rent Receivable Yield has been introduced.

as at 15 December 2016

Market Impacted	Feature	Product	Date Available *	Summary of the change
UK (Monthly), (Quarterly)	Segment Correction	Global Intel	15-Dec-16	Segmentation Name: Digest History - segment definition correction Standard Shops - South East & Eastern and Standard Shops - Rest of UK were corrected. The history for these segments was been recalculated. This does not impact headline index or sector level results.
UK (Monthly)	NEW Data Series	Global Intel	15-Dec-16	Market Rental Value Growth on 6 month measurement period added.
France	NEW Measure	Global Intel	15-Dec-16	Vacancy Rate - Financial reintroduced
All	Analytics Portal Functionality	Global Intel	05-Nov-16	Analytics Portal Spreadsheet Export functionality: The label for "No Percentiles" in the column "Percentiles" has been changed to ".". Any pregenerated files run before this date will not be updated. Data sort order and format also improved based on user feedback.
All	Analytics Portal Functionality	Global Intel	05-Nov-16	Since Inception Annualized : Standard label introduced for the longest annualized period available. Each data set shares the same label instead of incrementing a period for each index release. Enables users to link to the longest annualized period in a consistently way. Previous label will be removed whenever each respective data set is refreshed.
All	Analytics Portal Functionality	Global Intel	05-Nov-16	Currency Selection : No longer exports non-selected currencies.

All	HTTPS / SFTP Label File	Global Intel	05-Nov-16	HTTPS / SFTP label file corrected. The CODE column no longer truncates very long labels.
Canada	NEW Segments	Global Intel	04-Nov-16	Canada Global Cities by Property Type now contains segments for Victoria, Regina and Rest of Canada. Only available for the Canada data set.
Australia, New Zealand	Segment label change	Global Intel	15-Nov-16	Amendment to Capital Investment Structures - Quality Type segmentation labels.
Australia, New Zealand, Japan	NEW Measure	Global Intel	15-Nov-16	Value Appraised (%) measure introduced. Useful for markets that do not have fully synchronized valuations. Replaces External Valuer Appraised (%) in these markets.
Japan	Measure label change	Global Intel	15-Nov-16	Capital Value (Latest Value) and Capital Value Weight (Latest Value) measure label amendment to improve consistency.

as at 28 September 2016

Market Impacted	Feature	Product	Date Available *	Summary of the change
Australia, New Zealand	NEW Index	Global Intel	NZ: 8-Sep-16 Aus: 13-Sep-16	Quarterly Indexes of income, capital and total return added
Australia	NEW Measure	Global Intel	13-Sep-16	Rent Receivable per m ² reintroduced
Australia	NEW Measure	Global Intel	13-Sep-16	Total Net Operating Costs per m ² reintroduced
Australia	NEW Measure	Global Intel	13-Sep-16	Vacancy Rate - Floorspace reintroduced
Japan	NEW Index	Global Intel	15-Sep-16	Monthly Indexes of income, capital and total return reintroduced. Japan data set now offers two return index series: annual and monthly.
Japan	NEW Measure	Global Intel	14-Oct-16	Latest Value measure re-labelled to Capital Value (Latest value)
Japan	NEW Measure	Global Intel	14-Oct-16	Capital Value per m ² (Latest value) introduced to replace Capital Value per m ²
Netherlands	NEW Index	Index Fact Sheet & Global Intel	29-Sep-16	The IPD Netherlands Annual Property Index will experience a one-off historical restatement of income, capital and total returns and index values. The newly restated Index series, including full history, will then be re-frozen. This is necessitated by the adoption of MSCI's new Global Methodology Standard and will impact all sub-market indexes.
South Africa	NEW Index	Index Fact Sheet & Global Intel	04-Oct-16	IPD South Africa Biannual Property Index (formerly known as an 'indicator') migrated to Global Methodology Standard (GMS), history is restated .
France	NEW Index	Index Fact Sheet & Global Intel	24-Oct-16	IPD France Annual Property Index will experience a one-off historical restatement of income, capital and total returns and index values. The newly restated Index series, including full history, will then be re-frozen. This is necessitated by the adoption of The MSCI's new Global Methodology Standard and will impact all sub-market indexes. <i>Please note that this is a revised date (formerly communicated as 29 September 2016)</i>
UK	NEW Index	Index Fact Sheet & Global Intel	01-Mar-17	IPD UK Annual Property Index will experience a one-off historical restatement of income, capital and total returns and index values. The newly restated Index series, including full history, will then be re-frozen. This is necessitated by the adoption of MSCI's The new Global Methodology Standard and will impact all sub-market indexes. <i>Please note that this is a revised date (formerly communicated as 29 September 2016)</i>
Canada	NEW Index	Global Intel	04-Nov-16	Quarterly Indexes of income, capital and total return added
Australia, New Zealand	NEW Measure	Global Intel	NZ: 8-Nov-16 Aus: 15-Nov-16	Development Receipts added to the suite of investment measures
Germany	NEW Measure	Global Intel	Nov-16	Market Net Yield reintroduced as the 'local market' default yield
Germany	NEW Measure	Global Intel	Nov-16	Market Net Yield Shift reintroduced to accompany the Market Net Yield addition
Germany	NEW Measure	Global Intel	Nov-16	Market Net Yield Impact reintroduced to accompany the Market Net Yield addition
Sweden, Norway, Denmark	NEW Measure	Global Intel	Jan-17	Valuation Yield reintroduced to Nordic data sets as the 'local market' default yield.
Sweden, Norway, Denmark	NEW Measure	Global Intel	Jan-17	Valuation Yield Shift reintroduced to accompany the Valuation Yield addition
Sweden, Norway, Denmark	NEW Measure	Global Intel	Jan-17	Valuation Yield Impact reintroduced to accompany the Valuation Yield addition

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Please refer any questions to your MSCI client service team or email us at realestate@msci.com.

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