MSCI Property Fund Index Methodology Change – Simulated Results

Comparison of Property Fund Index Performance Between Existing and Time-Weighted Return Methodology

July 2021

Contents

1 Methodology Transition

1.1. SUMMARY OF CHANGES

MSCI has consulted with the real estate investment community on the incorporation of a time-weighted return methodology for use in the MSCI Property Fund Indexes methodology for return calculation.

As announced in April 2020, the following enhancements will be made to the current methodology:

- For MSCI Pan-European Property Fund Index, MSCI/AREF UK Quarterly Property Index, MSCI/Mercer Australia Core Wholesale Monthly Property Fund Index and The Property Council of Australia/MSCI Australia Quarterly Property Fund Index, returns will be calculated using Time-Weighted Return Methodology (reflecting daily-weighted external cash flows at fund level) instead of the current Unitized Methodology.
- For MSCI/REALPAC Canada Quarterly Property Fund Index, index return calculations will be based on the underlying data (not the stated fund returns).
- Fund-Level index returns will be made available on both Net and Gross fee basis.
- Income return calculations will be based on the Net Investment Income.
- Interpolation and apportionment will be applied Net Asset Value and the Net Investment Income are not available on a monthly basis and the external cash flows are not available on a day-dated basis.
- Cross-holdings adjustment will be discontinued for the MSCI/Mercer Australia Core Wholesale Monthly Property Fund Index and The Property Council of Australia/MSCI Australia Quarterly Property Fund Index.

As announced in June 2021, the following enhancement will be made to the current methodology:

- For the UK funds within the MSCI Global Quarterly Property Fund Index (Unfrozen), the TWR computation methodology will be implemented.

1.2. BENEFITS OF MOVING TO FUND-LEVEL RETURNS

The benefits of the Time-Weighted Return Methodology with adjustment for daily-weighted external cash flows relative to Unitized methodologies are:

- Better alignment with Global Investment Performance Standards (GIPS) by considering day-dated external cash flows. The CFA Institute Global Investment Performance Standards (GIPS®) are globally accepted standards considered industry best practice for investment performance reporting.

- Global standardization would benefit funds having international investors or international fund raising.
- Income return is more comparable amongst funds which are not (or are partly) distributing their income due to the use of Net Investment Income (NII) instead of using distributions.
- A fund level return calculation considers the overall fund level returns while the unitized return calculation considers individual investors returns. It is therefore, more accurate for fund level return calculations for funds with different share-classes for different investors having different fees and/or distributing and non-distributing shares. Unitized approach would not consider deviations between unit price for new units compared to the NAV per unit for return calculations (bid/offer spread).
- It allows for the introduction of additional market information including information and analyses on capital investment flows and distributions
- For global / international managers the new methodology will facilitate internal reporting / data management and support creating composites.

1.3. BENEFITS OF USING DAY-DATED EXTERNAL CASH-FLOW DATA

Benefits of daily cash-flows compared to (stated) quarterly data:

- Timing of distributions is taken into consideration i.e, if distributions are made at the start of the period or at the end of the period; resulting in a more accurate capital employed calculation.
- Daily weighted external cash flows in the capital employed calculation is more accurate for funds with significant capital flows, particularly for closed-end value-add and opportunistic funds.
- Global standardization would benefit funds when having international investors or international fund raising and support creating composites.
- The calculation of monthly returns would allow for better monthly index weighting and more accurate currency conversion for multinational indexes.
- Potentially enhanced asset to fund asset reconciliation. Because the fund return is anticipated to be more accurate the residual derived by comparing the fund return and the bottom-up return calculations (based on the direct property level returns and other investment and portfolio level items) is anticipated to be smaller. For the bottom-up calculations asset purchases and sales are already monthly dated (rather than quarterly).

1.4. RATIONALE OF DISCONTINUING OF ADJUSTING FOR CROSS-HOLDINGS

Real estate is an illiquid asset class and liquidity requirements by adjusting for cross-holdings is not necessary. Although cross-holdings exists, investments could be made in both funds. The impact of cross-holdings didn't have a material impact to the index returns and by discontinuing the adjustments for cross-holdings the sum of the sub-indexes equals the index composition. There are instances where there is no cross-holdings in a subindex, but there is a cross-holding in the national level or international composite index.

2 Timelines on Formal Transition of Methodology

The methodology changes will become effective for the below mentioned indexes (including related sub-indexes and benchmarks), as per the timelines in Table 1. The new methodology will be applied on a moving forward basis only. There will be no restatement of index history.

Table 1: Overview of MSCI Property Fund Indexes to the Time-Weighted Returns

Index name	Index transition
MSCI/Mercer Australia Core Wholesale Monthly Property Fund Index	July 2021 results
The Property Council of Australia/MSCI Australia Unlisted Retail Quarterly Property Fund Index	Q3 2021 results
MSCI/REALPAC Canada Quarterly Property Fund Index	Q3 2021 results
MSCI Pan-European Quarterly Property Fund Index (PEPFI)	Q3 2021 results
MSCI/AREF UK Quarterly Property Fund Index	Q1 2022 results only for inclusion in MSCI Global Quarterly Property Fund Index
MSCI Global Quarterly Property Fund Index	Will reflect the underlying national indexes

The Data contributors for property fund indexes listed in Table 1, were requested to provide the day dated data for 3 years of history by September 2020. MSCI has shared the individual property fund performance with the respective data contributor during the fourth quarter of 2020 and first quarter of 2021. The preliminary aggregated results at the index level are shared with index subscribers starting Q1 2021 till the formal transition.

3 Objective of Report

The objective of this report is to provide market participants with insight on the impact of the methodology change if it would have happened retrospectively. This report provides the simulated results. The new methodology will be applied on a moving forward basis only with no restatement of index history. In addition to the net of fees total return comparison this report will highlight some of the drivers of the differences in returns between the two methodologies.

Not all current constituents of an index are reflected in these simulated results. Therefore, a like-for-like comparison has been made to show the impact of the differences in returns due to difference in methodology.

4 MSCI/Mercer Australia Core Wholesale Monthly Property Fund Index

4.1 SAMPLE

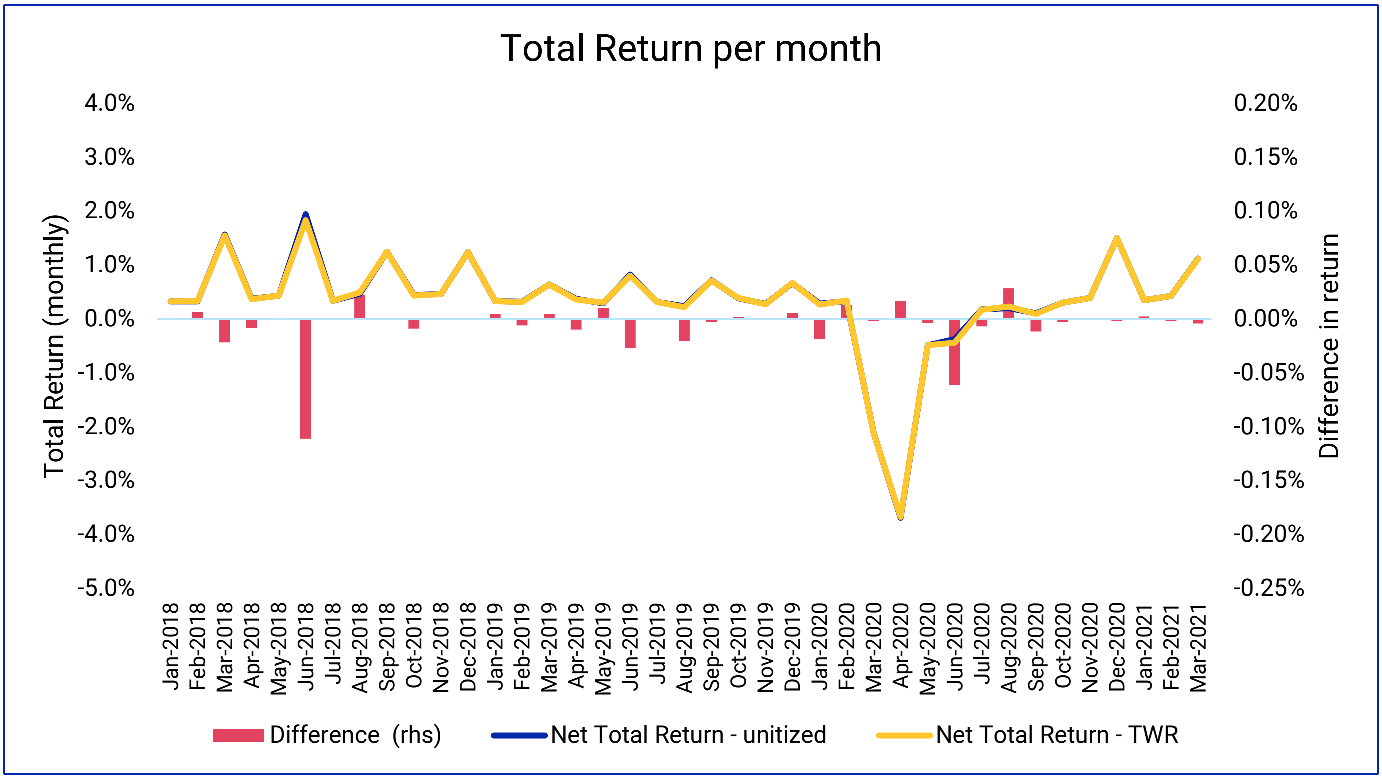
Table 2 shows the data provision for the TWR data inputs. The day dated external cash-flows and net investment income has been provided for 100% of the funds (NAV weight). This has allowed MSCI to run simulated results based on the new methodology. The results in this section are based on a like-for-like comparison and are based on unfrozen results. The unfrozen results would show the methodology difference most clearly, because for both unitized and TWR data, potential data resubmissions will be considered.

Table 2. Number of funds in sample

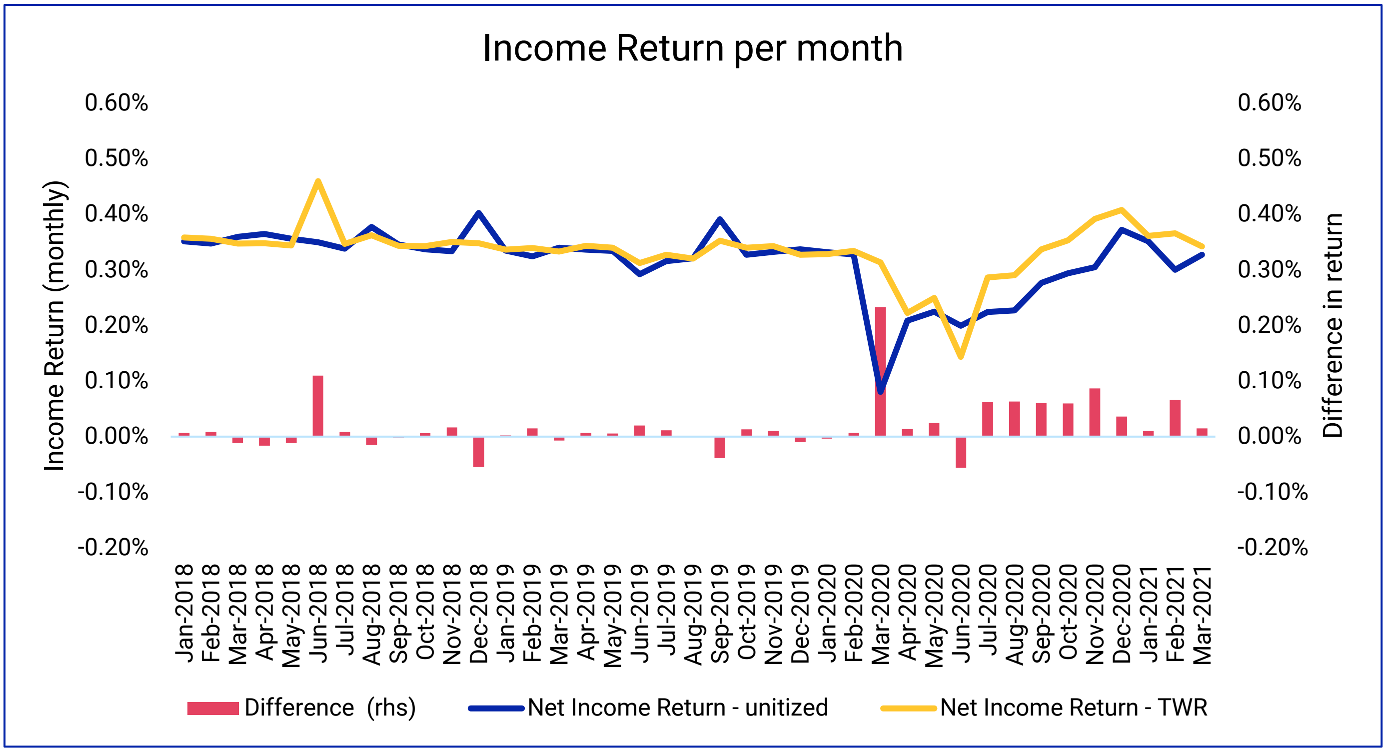
	Unitized # funds	Unitized NAV (AUD)	TWR # funds	TWR NAV (AUD)
M1 2018	17	73.7bn	17	73.7bn
M2 2018	17	73.9bn	17	73.9bn
M3 2018	17	76.0bn	17	76.0bn
M4 2018	17	76.9bn	17	76.9bn
M5 2018	17	77.0bn	17	77.0bn
M6 2018	17	78.3bn	17	78.3bn
M7 2018	17	78.5bn	17	78.5bn
M8 2018	17	79.0bn	17	79.0bn
M9 2018	17	79.8bn	17	79.8bn
M10 2018	17	81.2bn	17	81.2bn
M11 2018	17	81.4bn	17	81.4bn
M12 2018	17	82.4bn	17	82.4bn
M1 2019	17	82.6bn	17	82.6bn
M2 2019	17	82.9bn	17	82.9bn
M3 2019	17	83.3bn	17	83.3bn
M4 2019	17	84.0bn	17	84.0bn
M5 2019	17	83.6bn	17	83.6bn
M6 2019	17	84.5bn	17	84.5bn
M7 2019	17	84.7bn	17	84.7bn
M8 2019	17	84.8bn	17	84.8bn
M9 2019	17	85.0bn	17	85.0bn
M10 2019	17	85.1bn	17	85.1bn
M11 2019	17	85.1bn	17	85.1bn
M12 2019	17	85.9bn	17	85.9bn
M1 2020	17	85.7bn	17	85.7bn
M2 2020	17	86.3bn	17	86.3bn
M3 2020	17	84.7bn	17	84.7bn
M4 2020	17	82.1bn	17	82.1bn
M5 2020	17	81.8bn	17	81.8bn
M6 2020	17	81.4bn	17	81.4bn
M7 2020	17	81.7bn	17	81.7bn
M8 2020	17	81.7bn	17	81.7bn
M9 2020	17	81.9bn	17	81.9bn
M10 2020	17	81.9bn	17	81.9bn
M11 2020	17	82.0bn	17	82.0bn
M12 2020	17	83.0bn	17	83.0bn
M1 2021	17	82.7bn	17	82.7bn
M2 2021	17	82.6bn	17	82.6bn
M3 2021	17	82.9bn	17	82.9bn

4.2 RETURN COMPARISON

On the net total return, we see a difference of 1 bps in the most recent periods. In the majority of the periods the differences in the returns have been below 5 bps, except for June 2018 and in June 2020 when the differences were 11 and 6 bps respectively. On an annual basis the return difference has been 5 bps for the year to March 2021 and 7 bps on a 3-year annualized basis.



On the net income return, we see a difference of 1 bps in the most recent period. In several periods in the past year we see differences, because several funds reduced or temporarily reduced their distributions. On an annual basis the return difference has been 46 bps for the year to March 2021 and 26 bps on a 3-years annualized basis.



4.3 DRIVERS OF DIFFERENCE

The major drivers of differences in the returns based on Unitized methodology versus the TWR methodology are as follows:

- The income return at the aggregate level has increased. The increase is mainly coming from (partly) non-distributing funds that previously did have a low income return but are reporting an income return based on the net investment income.
- For the current methodology the net investment activity didn't have any impact to the denominator of the return calculation for funds which did have a change in the number of units, because the returns were calculated on a per unit basis. Because the net investment will be timed within the month it will partly

contribute to the denominator for the portion the capital was invested in the month.

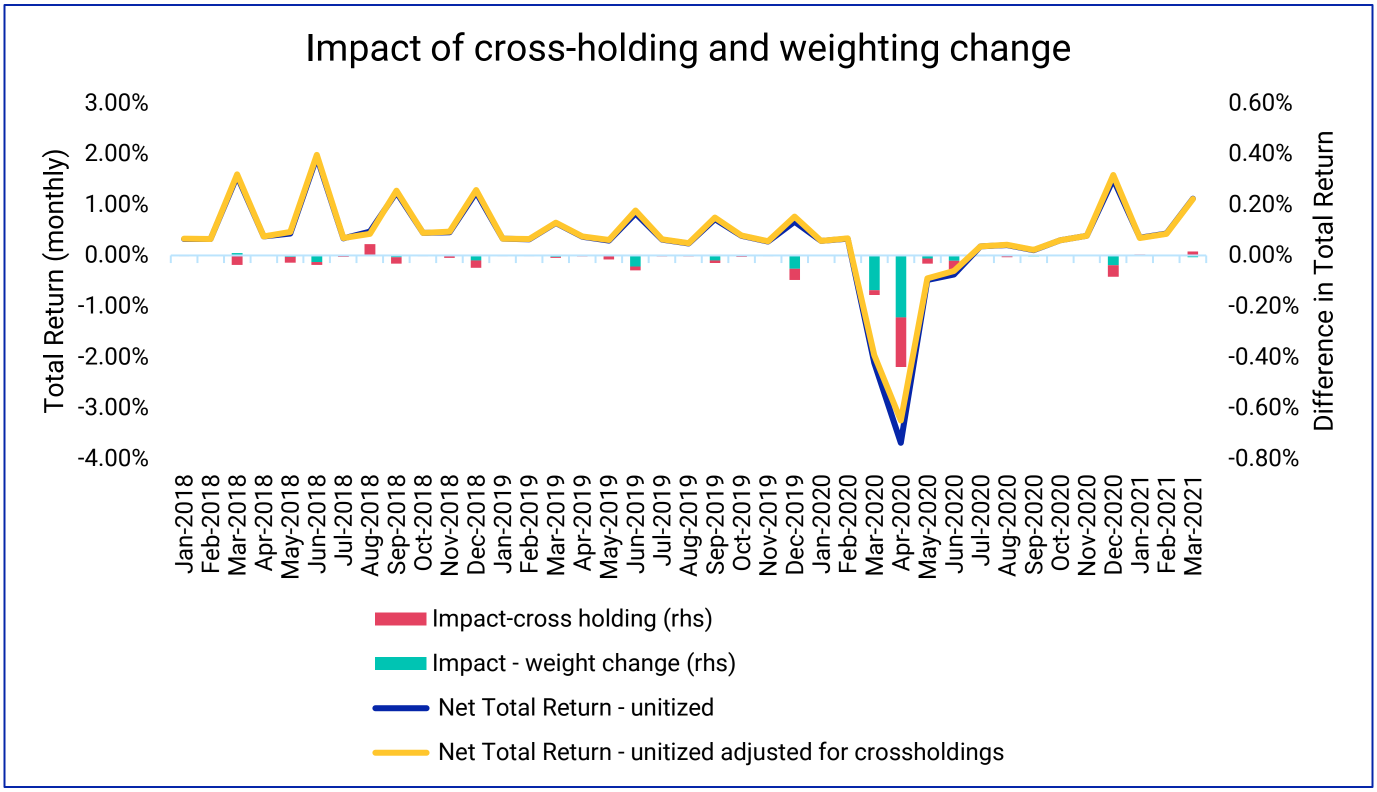
- Due to differences in the timing between the net investment income and the distribution there have been differences in the return on a monthly basis.

4.4 DISCONTINUATION OF CROSS-HOLDINGS ADJUSTMENT AND WEIGHTING CHANGE

The analysis on discontinuation of crossholdings adjustment and weighing change is based on the full index sample. For this analysis the day-dated external cash flow as well as the net investment income is not required.

The cross-holdings adjustment will be discontinued for the MSCI/Mercer Australia Core Wholesale Monthly Property Fund Index. On the total return, we see a difference of 2 bps in March 2021. In most of the periods the difference in return differences has been below 5 bps. The only exception was the April 2020 period when there was an impact of 20 bps. The relatively large impact in that period was due to the wide fund return dispersion (mainly retail sector vs. all other funds). The cross-holdings are mostly present in the retail sector. On an annual basis the return difference has been 30 bps for the year to March 2021 and 17 bps on a 3-years annualized basis. The amount of cross-holdings within the index is 2.9% of the index NAV as of March 2021.

Beyond the change in cross-holdings adjustments the individual fund weighting in the aggregated index and sub-indexes will change. Currently the individual fund results are weighted in the index based on the period end NAV. Therefore, the appreciation within the fund has an impact on the weight of the fund within the index for that period. Funds which have a higher appreciation will therefore have a larger weight in the index, while funds with a lower/negative appreciation would have a lower weight in the index. This particularly has an impact at the aggregated results when there is a large dispersion in fund returns. For the new methodology the individual fund results will be weighted based on the capital employed which is based on the previous' period Net Asset Value and adjusted by external cashflows. The individual fund weighting change was particularly noticeable in April 2020 but has been observed in other periods as well. On the total return, we see a difference of 1 bps in March 2021. In most of the periods the differences in return have been below 10 bps. The only exception was the April 2020 period when there was an impact of 24 bps and in March 2020 when the impact was 14 bps. On an annual basis, the return difference has been 34 bps for the year to March 2021 and 23 bps on a 3-years annualized basis.


Impact of cross-holding and weighting change
Total Return (monthly)
Difference in Total Return
3.00%
2.00%
1.00%
0.00%
-1.00%
-2.00%
-3.00%
-4.00%
0.60%
0.40%
0.20%
0.00%
-0.20%
-0.40%
-0.60%
-0.80%
Jan-2018
Feb-2018
Mar-2018
Apr-2018
May-2018
Jun-2018
Jul-2018
Aug-2018
Sep-2018
Oct-2018
Nov-2018
Dec-2018
Jan-2019
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Nov-2020
Dec-2020
Jan-2021
Feb-2021
Mar-2021
Impact-cross holding (rhs)
Impact - weight change (rhs)
Net Total Return - unitized
Net Total Return - unitized adjusted for crossholdings

5 The Property Council of Australia/MSCI Australia Unlisted Retail Quarterly Property Fund Index

5.1 SAMPLE

Table 3 shows the data provision for the TWR data inputs. The day dated external cash-flows and net investment income has been provided for 100% of the current (live) funds (NAV weight). This has allowed MSCI to run simulated results based on the new methodology.

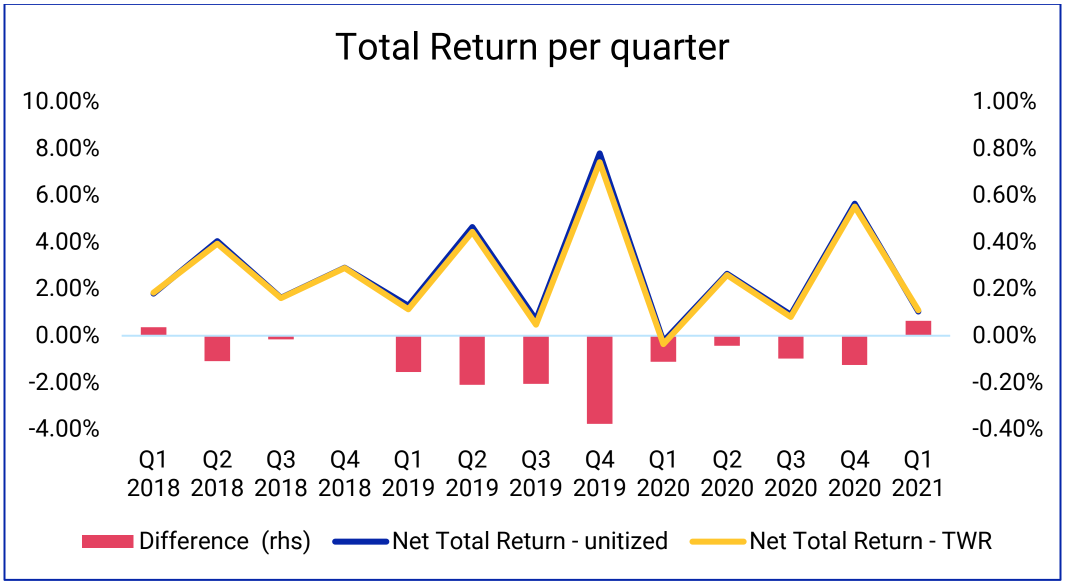
Table 3. Number of current (live) funds in sample

	Unitized # funds	Unitized NAV (AUD)	TWR # funds	TWR NAV (AUD)
Q1 2018	24	3.2bn	23	3.2bn
Q2 2018	25	3.6bn	24	3.5bn
Q3 2018	25	3.7bn	24	3.6bn
Q4 2018	26	3.9bn	25	3.8bn
Q1 2019	26	4.0bn	25	3.9bn
Q2 2019	27	4.4bn	26	4.3bn
Q3 2019	27	4.6bn	26	4.5bn
Q4 2019	27	5.4bn	26	5.3bn
Q1 2020	29	5.3bn	28	5.2bn
Q2 2020	29	5.5bn	28	5.4bn
Q3 2020	28	5.5bn	28	5.5bn
Q4 2020	28	5.9bn	28	5.9bn
Q1 2021	28	5.9bn	28	5.9bn

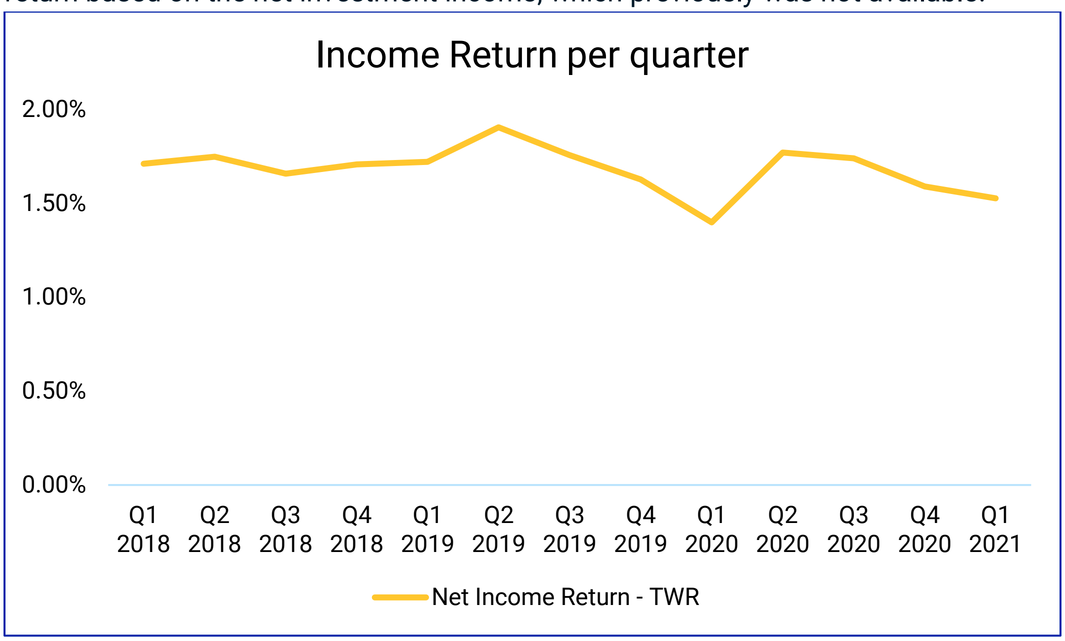
5.2 RETURN COMPARISON

The results for net total return have been simulated on a like-for-like basis.

On the net total return, we see a difference of 6 bps in the most recent period. In the majority of the periods the differences in the returns have been below 20 bps, except for December 2019 when the difference was 38 bps. On an annual basis the return difference has been 21 bps for the year to December 2020 and 50 bps on a 3-year annualized basis.



Based on the new methodology it would be possible to publish a quarterly income return based on the net investment income, which previously was not available.



5.3 DRIVERS OF DIFFERENCE

The major drivers of differences in the returns based on Unitized methodology versus the TWR methodology are as follows:

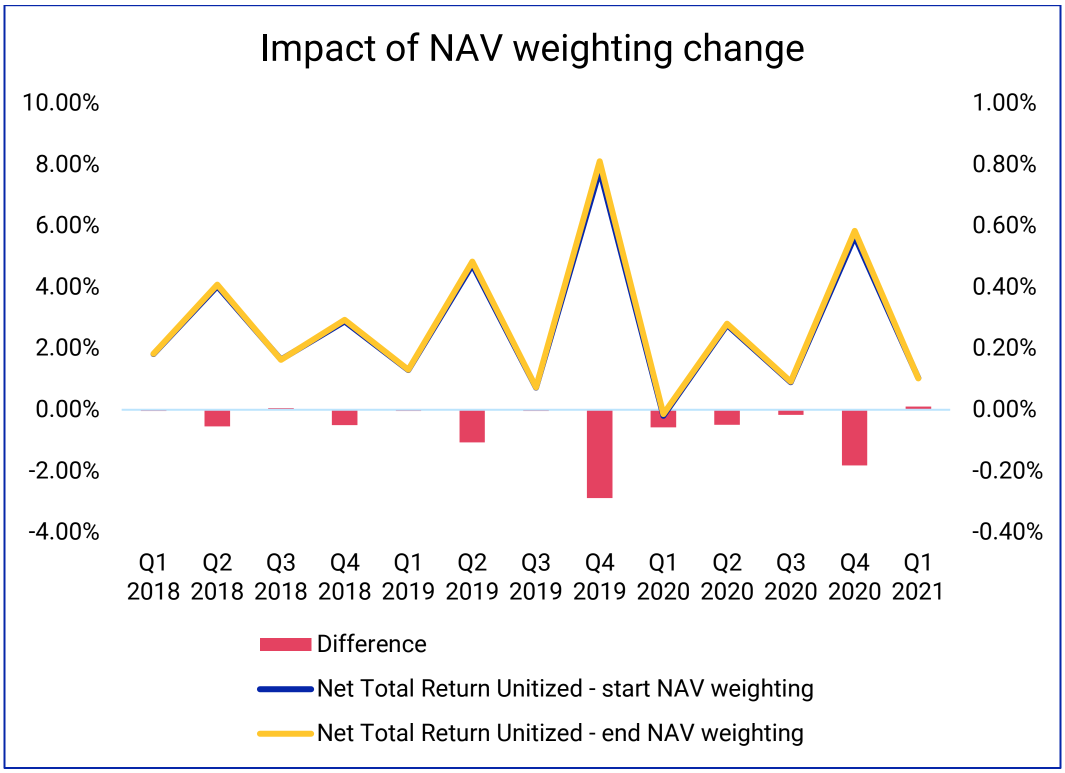
- For the current methodology the net investment activity didn't have any impact to the denominator of the return calculation for funds, because the returns were calculated on a per unit basis. Because the net investment activity is day-dated it has an impact on the weighted equity within the month (denominator). In certain point periods there were significant inflows of capital in several funds.
- There are certain funds for which the impact is due to the bid-offer spread. The difference in the bid-offer spread did not have an impact on returns in the unitized methodology, while it would be reflected in the calculations based on TWR methodology.This did have an impact on particular funds that had grown considerably due to capital inflows.

5.4 DISCONTINUATION OF CROSS-HOLDINGS ADJUSTMENT AND WEIGHTING CHANGE

The analysis on discontinuation of crossholdings adjustment and weighing change is based on the full sample of funds included in March 2021 results. For this analysis the day-dated external cash flow as well as the net investment income is not required.

The cross-holdings adjustment will be discontinued for the Property Council of Australia/MSCI Australia Unlisted Retail Quarterly Property Fund Index. For the period between December 2017 and March 2021 there was no cross-holdings within the index and therefore the impact was zero.

Beyond the change in cross-holdings adjustments the individual fund weighting in the aggregated index and sub-indexes will change. Currently the individual fund results are weighted in the index based on the period end NAV. Therefore, the appreciation within the fund has an impact on the weight of the fund within the index for that period. Funds which have a higher appreciation will therefore have a larger weight in the index, while funds with a lower/negative appreciation would have a lower weight in the index. This particularly has an impact at the aggregated results when there is a large dispersion in fund returns. For the new methodology the individual fund results will be weighted based on the capital employed which is based on the previous' period Net Asset Value and adjusted by external cashflows. The individual fund weighting change was particularly noticeable in December 2019 and 2020 but has been observed in other periods as well. On the total return, we see a difference of 18 bps in December 2020. In most of the periods the differences in return have been below 10 bps. On an annual basis, the return difference has been 25 bps for the year to March 2021 and 28 bps on a 3-years annualized basis.



6 MSCI/REALPAC Canada Quarterly Property Fund Index

6.1 SAMPLE

Table 4 shows the data provision for the TWR data inputs. The day dated external cash-flows and net investment income has been provided for 100% of the funds (NAV weight). This has allowed MSCI to run simulated results based on the new methodology.

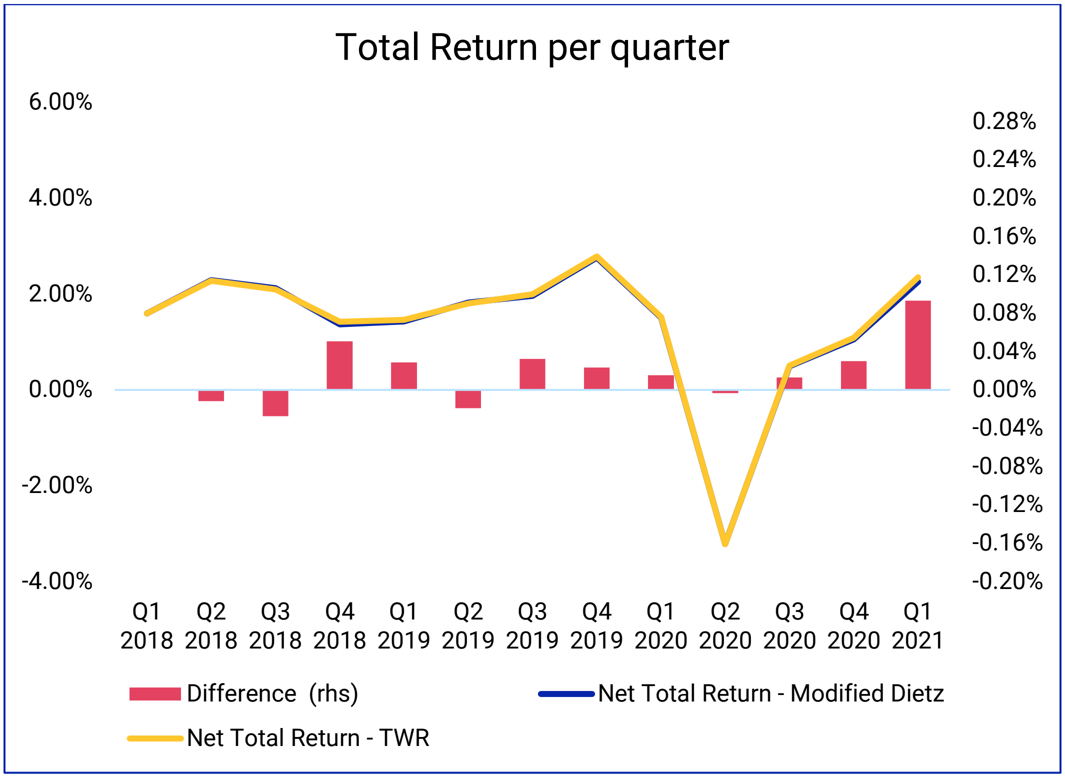
Table 4. Number of funds in sample

	Modified Dietz # funds	Modified Dietz NAV (CAD)	TWR # funds	TWR NAV (CAD)
Q1 2018	8	23.7bn	8	23.7bn
Q2 2018	8	25.0bn	8	25.0bn
Q3 2018	8	26.4bn	8	26.4bn
Q4 2018	8	26.8bn	8	26.8bn
Q1 2019	9	27.8bn	9	27.8bn
Q2 2019	9	28.5bn	9	28.5bn
Q3 2019	9	29.0bn	9	29.0bn
Q4 2019	9	29.8bn	9	29.8bn
Q1 2020	9	30.0bn	9	30.0bn
Q2 2020	9	28.9bn	9	28.9bn
Q3 2020	9	28.9bn	9	28.9bn
Q4 2020	9	29.3bn	9	29.3bn
Q1 2021	9	29.3bn	9	29.3bn

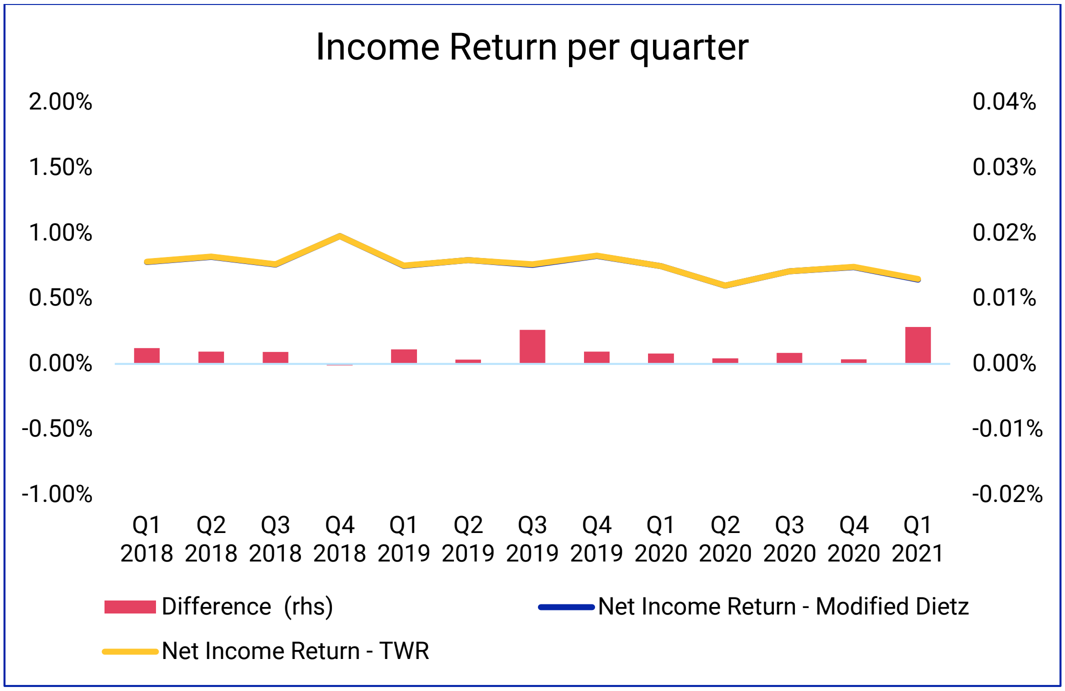
6.2 RETURN COMPARISON

On the net total return, we see a difference of 9 bps in the most recent period. In the majority of the periods the differences in the returns have been below 5 bps. On an annual basis the return difference has been 13 bps for the year to March 2021 and 8 bps on a 3-year annualized basis.

The differences mainly arise from a difference in the stated vs. the calculated appreciation on a quarterly basis. MSCI has engaged with the individual clients to address these differences in particular on how fees being charged to investors need to be recorded as well as the new capital invested should be provided in the case of reinvestments. This is also included in the Feedback/Questions During Data Provision section (Section 9) of this document.



On the net income return, we see a difference of 1 bps in the most recent period. In the majority of the periods we see small differences. On an annual basis the return difference has been 1 bps for the year to March 2021 and 1 bps on a 3-years annualized basis.



6.3 DRIVERS OF DIFFERENCE

The major drivers of differences in the returns based on the stated quarterly returns used in the Modified Dietz Methodology versus the calculation of the monthly TWR using the day-dated external cash-flows are as follows:

- The monthly derivation of the NAV based on the net capital invested and related calculation of the weighted equity did have a small impact to the results.
- Several clients have highlighted that monthly NAVs are available and will be provided starting from the formal transition. This will reduce the differences.
- There was some lack of clarity on how fees should be provided. In the case fees are being charged they need to be recorded as negative distributions, otherwise there would be a return deviation between the two methodologies. Most of the differences have been addressed at the moment of the second release of the simulated results. Based on this feedback the definition has been updated and included in the Feedback/Questions During Data Provision section (Section 9) of this document. However, MSCI is still engaging with two data providers to reduce the difference further.

7 MSCI Pan-European Quarterly Property Fund Index

7.1 SAMPLE

Table 5 shows the data provision for the TWR data inputs. The day dated external cash-flows and net investment income has been provided for 96% of the funds (NAV weight). This has allowed MSCI to run simulated results based on the new methodology. The results in this section are based on a like-for-like comparison.

Table 5. Number of funds in sample

	Unitized # funds	Unitized NAV (EUR)	TWR # funds	TWR NAV (EUR)
Q1 2018	15	21.5bn	14	20.8bn
Q2 2018	15	22.8bn	14	22.1bn
Q3 2018	15	24.1bn	14	23.4bn
Q4 2018	15	26.3bn	14	25.5bn
Q1 2019	15	27.2bn	14	26.3bn
Q2 2019	15	28.2bn	14	27.4bn
Q3 2019	16	30.1bn	15	29.3bn
Q4 2019	16	33.1bn	15	32.2bn
Q1 2020	16	33.9bn	15	32.9bn
Q2 2020	16	33.5bn	15	32.5bn
Q3 2020	16	34.6bn	15	33.6bn
Q4 2020	16	36.3bn	14	30.6bn
Q1 2021	16	37.8bn	15	36.4bn

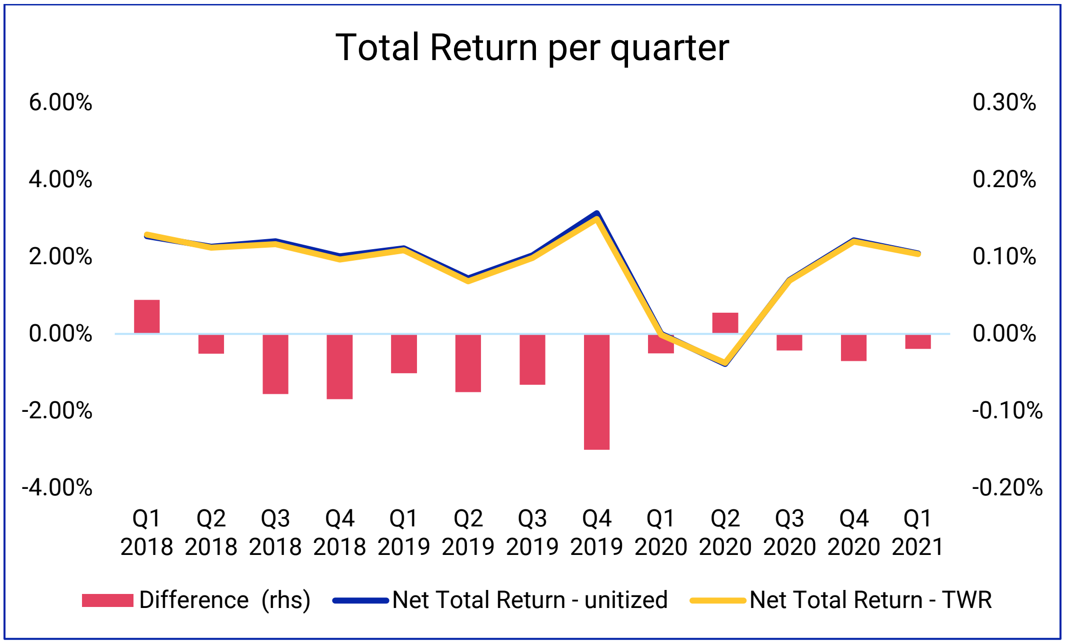
100% of day dated data provision was not possible because:

- For one fund there were outstanding questions for particular periods and therefore couldn’t be included for the comparison of results for the full period.
- For one fund there were outstanding questions for the full period and therefore couldn’t be included for the comparison of results.

7.2 RETURN COMPARISON

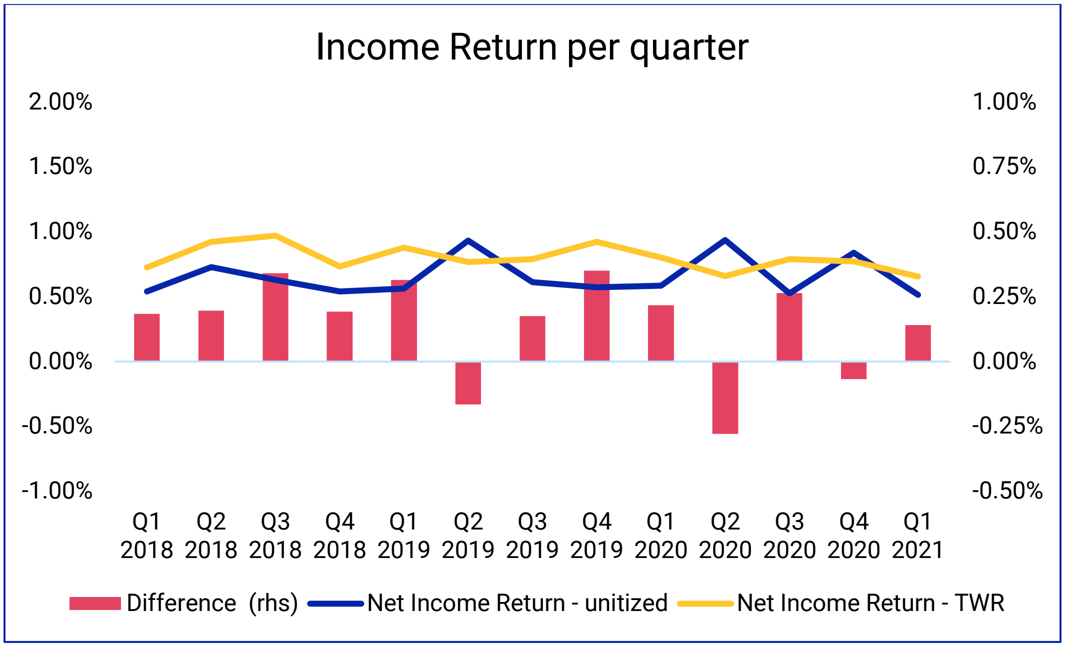
The results for net total return and net income return have been simulated on a like-for-like basis.

On the net total return, we see a difference of 2 bps in the most recent period. In the majority of the periods the differences in the returns have been below 10 bps, except for December 2019 when the difference was 15 bps. On an annual basis the return difference has been 5 bps for the year to March 2021 and 21 bps on a 3-year annualized basis.



On the net income return[1], we see a difference of 14 bps in the most recent period. On an annual basis the return difference has been 6 bps for the year to March 2021 and 57 bps on a 3-years annualized basis.

[1] For the income analyses the results for two funds are not included for the full history.



7.3 DRIVERS OF DIFFERENCE

The major drivers of differences in the returns based on Unitized methodology versus the TWR methodology are as follows:

- One fund did record annual distributions and those were used in the income return calculations in the unitized methodology while in the new methodology the income return for the fund has been calculated based on the monthly net investment income.
- The monthly derivation of the NAV is based on the net capital invested and related calculation of the weighted equity had an impact on the results. A large number of funds in this particular index has grown considerably due to capital inflows.
- There are certain funds for which the impact is due to the bid-offer spread. The difference in the bid-offer spread did not have an impact on returns in the unitized methodology, while it would be reflected in the calculations based on TWR methodology.

8 MSCI/AREF UK Quarterly Property Fund Index

Due to the second consultation on the methodology transition during Q2 2021 MSCI had deferred engagements with clients on the data provision for the proposed methodology. In the next release of the report, MSCI will update the Q1 and Q2 2021 results including any potential improvements related to the data for the 3-years history.

8.1 SAMPLE

Table 6 shows the data provision for the TWR data inputs. The day dated external cash-flows and net investment income has been provided for 72% of the funds (NAV weight). This has allowed MSCI to run simulated results based on the new methodology. The results in this section are based on a like-for-like comparison and are based on unfrozen results. The unfrozen results would show the methodology difference most clearly, because for both unitized and TWR data, potential data resubmissions will be considered.

Table 6. Number of funds in sample

	Unitized # funds*	Unitized NAV (GBP)*	TWR # funds*	TWR NAV (GBP)*
Q1 2018	51	52.5bn	36	36.4bn
Q2 2018	51	53.2bn	36	36.8bn
Q3 2018	51	53.8bn	36	37.3bn
Q4 2018	51	54.6bn	37	40.0bn
Q1 2019	51	55.0bn	37	40.1bn
Q2 2019	51	54.8bn	37	39.9bn
Q3 2019	51	54.6bn	37	39.5bn
Q4 2019	51	53.9bn	37	39.2bn
Q1 2020	51	53.5bn	37	37.8bn
Q2 2020	51	51.7bn	37	36.7bn
Q3 2020	51	50.4bn	36	35.9bn
Q4 2020	51	49.6bn	36	35.9bn

** This includes several non-index funds*

100% of day dated data provision was not possible because:

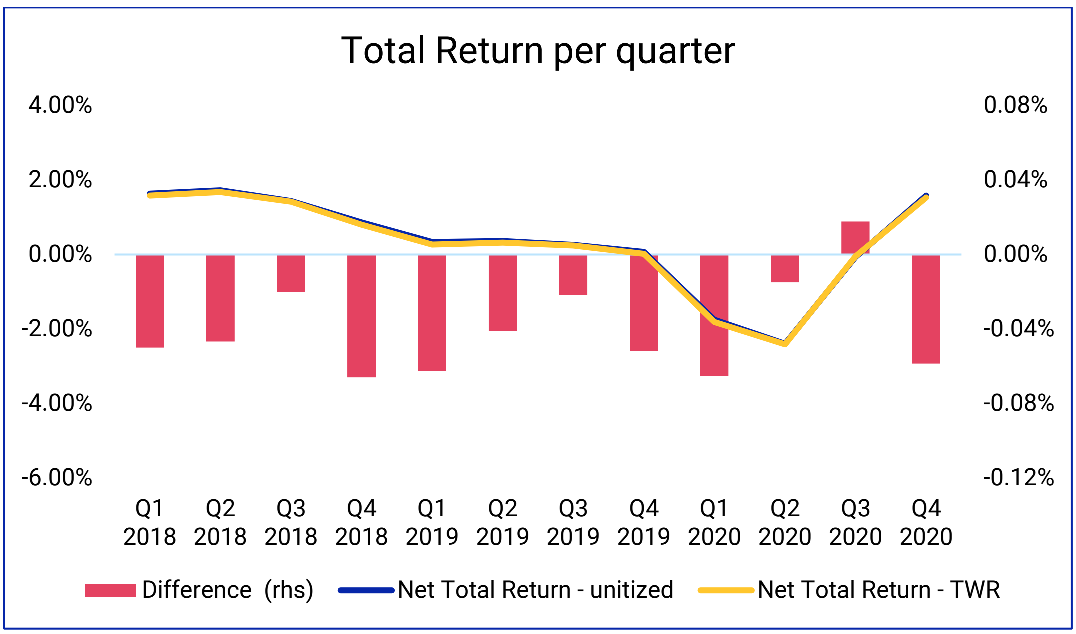
- The external cash-flows and net investment income has not been provided by 10 funds for the 3-years history, which includes three non-index funds. The main reason for not providing the data were lack of resources to provide the required data and/or dependency from third parties for providing the data. For these particular funds the data is expected to be received and will be included in the upcoming releases of the comparison results.

- For five funds there were outstanding questions for the full period and therefore couldn't be included for the comparison of results.

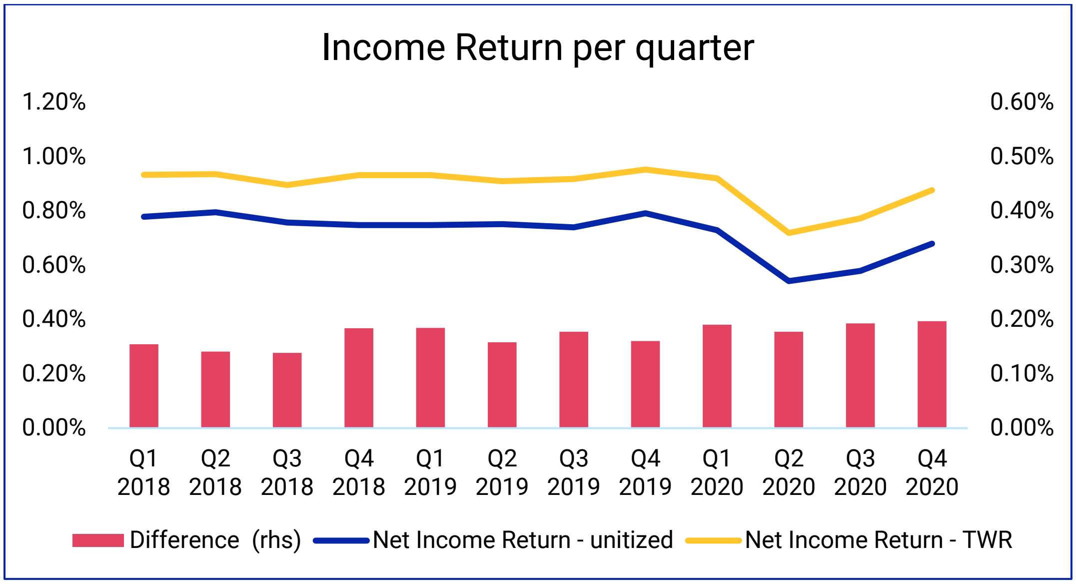
8.2 RETURN COMPARISON

The results for net total return and net income return have been simulated on a like-for-like basis.

On the net total return, we see a difference of 6 bps in the most recent period. In the majority of the periods the differences in the returns have been below 10 bps. On an annual basis the return difference has been 12 bps for the year to December 2020 and 16 bps on a 3-year annualized basis.

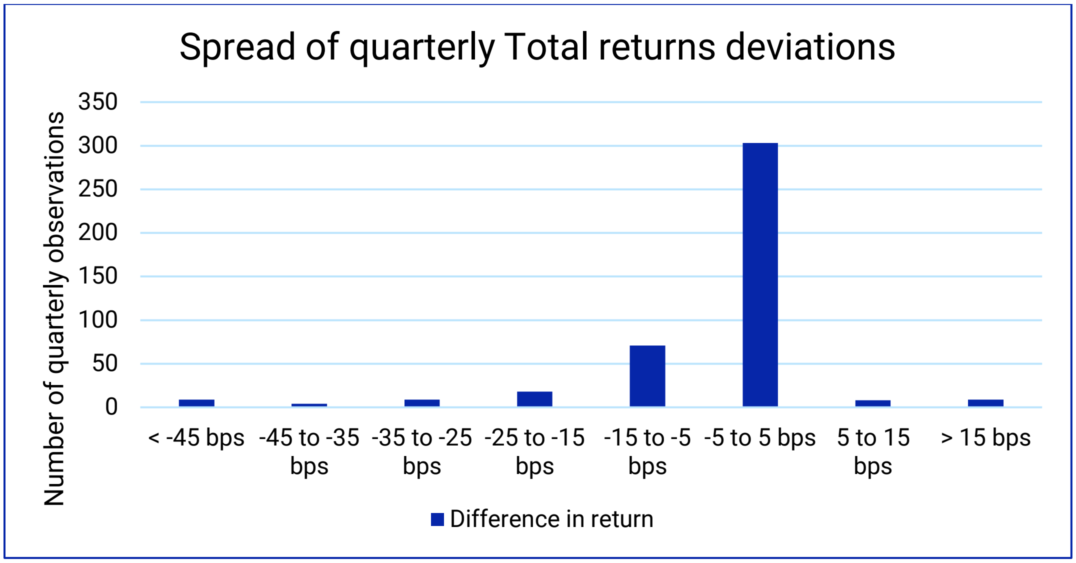


On the net income return, we see a difference of 20 bps in the most recent period. In the majority of the periods we see similar differences. On an annual basis the return difference has been 77 bps for the year to December 2020 and 70 bps on a 3-years annualized basis.

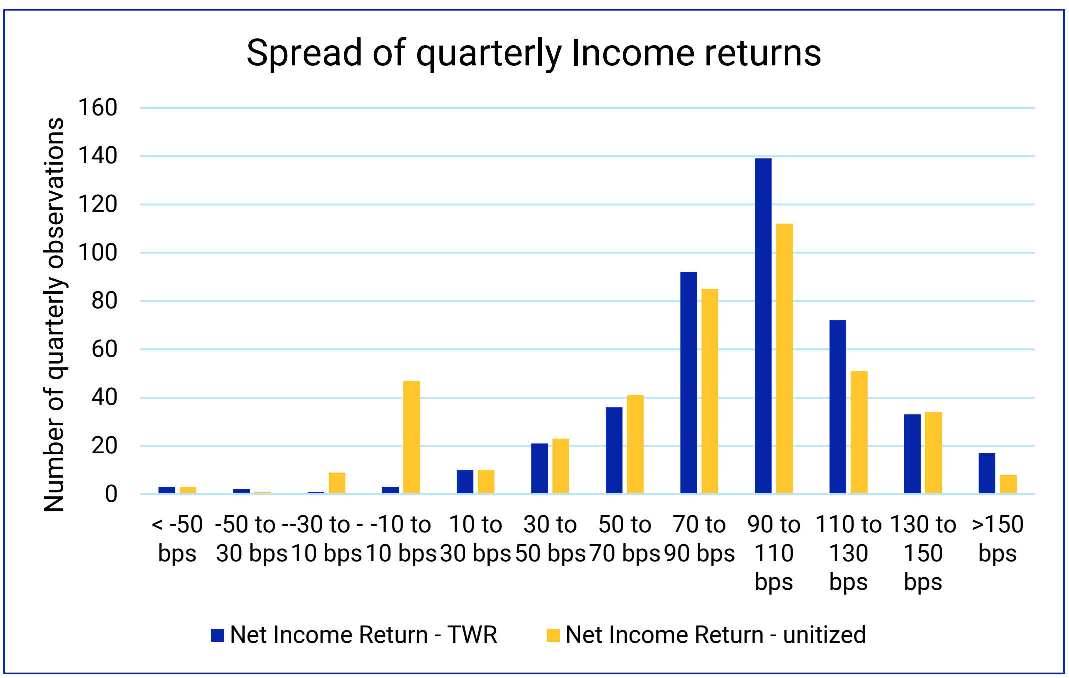


8.3 DISTRIBUTION OF RETURNS

On the spread of individual fund net of fees total return differences, we see that for the majority the difference is within 5 bps. There are also 16% of quarterly observations in which there is a difference between -15 to -5 bps. In 11% of the observations we see a difference of over 15 bps.



On the spread of individual fund income return, we see that the spread in returns has decreased. In particular the category -10 to 0 bps has reduced, which based on the currently mainly includes the non-distributing funds which charge fees to their investors.



8.4 DRIVERS OF DIFFERENCES

The major drivers of differences in the returns based on Unitized methodology versus the TWR methodology are as follows:

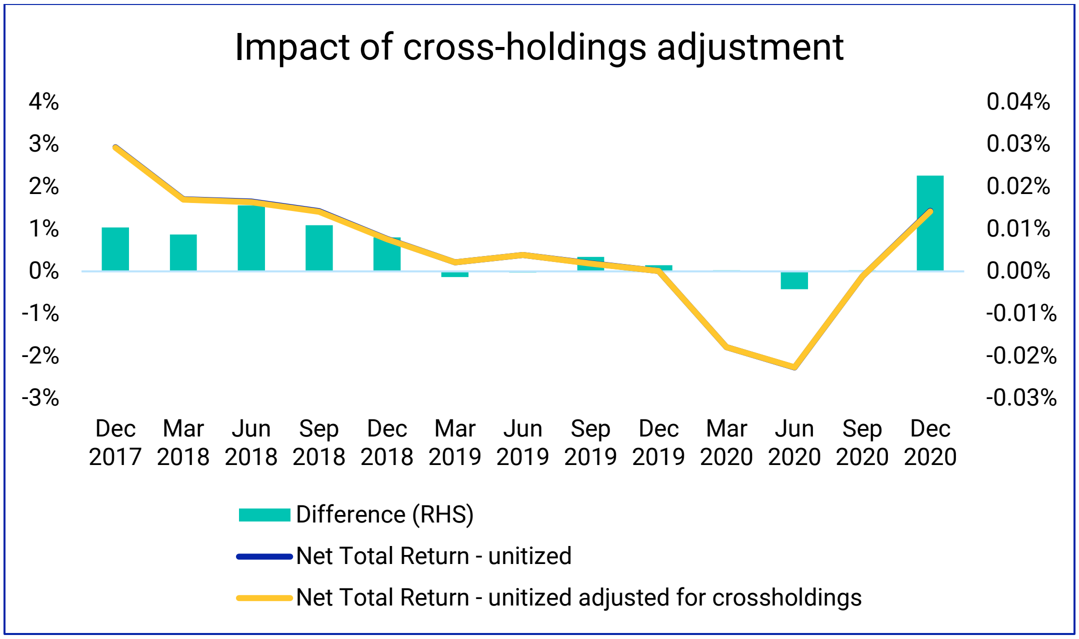
- Previously the impact of the bid-offer spread was not considered, while this currently is reflected. At the aggregate level this didn't have a material impact to the results but could have a material impact for funds with large capital inflows.
- The external cash-flows are timed within the month and it contributes to the denominator for the portion the capital was invested in the month.
- There were some differences in the timing between the net investment income and the distribution and therefore there could be differences in the return on a quarterly basis.
- The monthly derivation of the NAV based on the net capital invested didn't have a major impact to the results. A large number of funds already provided a monthly NAV.
- The income return at aggregate level has increased mainly due to non-distributing funds that previously did have a zero income return or negative distribution in the case they were charging fees to investors and will change to the income based on the net investment income.
- There was one fund that has distributions biannually, which moves to a monthly income return calculation using the net investment income.

8.5 DISCONTINUATION OF CROSS-HOLDINGS ADJUSTMENT

The analysis on discontinuation of crossholdings adjustment is based on the full index sample. For this analysis the day-dated external cash flow as well as the net investment income is not required.

The cross-holdings adjustment was proposed to be discontinued for the MSCI/AREF UK Quarterly Property Fund Index. On the total return, we see a difference of 2 bps in December 2020. In most of the periods the difference in return differences has been below 2 bps. On an annual basis the return difference has been 2 bps for the year to December 2020 and 2 bps on a 3-years annualized basis. The amount of cross-holdings within the index is 0.8% of the index NAV as of December 2020.

As announced in June 2021, no changes will be made to the calculation methodology for the MSCI/AREF UK Quarterly Property Fund Index and the cross-holding adjustment will be continued. For the UK funds within the MSCI Global Quarterly Property Fund Index (Unfrozen) currently no cross-holding adjustment is made and that will remain.



9 Feedback/Questions During Data Provision

Several questions were raised during the data provision process as well as when reviewing the results. Below you will find an overview of the received feedback.

a) Could MSCI provide more clarity on the definition of the Net Investment Income?

MSCI has further defined the definition of the Net Investment Income and has also updated the definition in the MSCI Global Data Standards for Real Estate Investment. The updated definition of the Net Investment Income is:

Total Net Investment Income After Fees that was reported by the vehicle during the period is defined as:

- *rental income and any other income from direct real estate investments;*
- *minus all direct real estate related expenses (excluding depreciation);*
- *minus interest expenses and financing related fees (including early repayment charges);*
- *plus the net income from other investments including indirect real estate investments and net income from other activities including cash;*
- *minus administrative expenses and other fund level related expenses;*
- *minus accrued or paid taxes incurred by the fund during the period (e.g. corporate level tax). Exclude tax incurred by investors in the vehicle (withholding tax) or local taxes due on individual properties (captured as part of the direct real estate expenses) and recoverable Sales Tax (VAT/GST). Balance sheet items (e.g. deferred tax) should not be included;*
- *Net Investment Income After Fees should be net of management and incentive fees (unless the incentive fees are netted off the capital side).*

Net Investment Income should ignore fair value gains or losses both realized and unrealized on all investments including financial instruments.

b) Could MSCI provide a distribution return that would be based on the distributions divided by the capital employed? This provides more insights to investors on the cash generation for funds.

As already communicated MSCI will continue to calculate the dividend yield. MSCI is currently reviewing if an additional performance measure should be introduced which would consider the dividend as a portion of the weighted equity (capital employed).

c) How should the fees be provided if they are separately charged to investors?

For most of the funds the fees are deducted from the distributable income. However, there might be instances for both non-distributing funds but also for distributing when the fees are being charged to the investors. In those instances, those fees should be included as a negative amount within the distribution data field with day dating of when that amount is being accrued.

d) How should the new capital invested be provided?

Only new investment based on external cash flows to the fund, which is coming from the new or existing investors, should be recorded. The day-dated external cash flow data item is not related to the operating expenses of the fund or for instance capital expenditure on the assets within the fund. This will be captured in other data fields.

10 APPENDIX I: Versioning Table

Version	Publication Date	Key Changes
V1.0	March 2021	First release of MSCI Property Fund Index Methodology Change – Simulated Results with results to Dec 2020.
V1.1	July 2021	Updated section 1.1 and section 8 to reflect the conclusion of the consultation for the methodology calculation change for the MSCI/AREF UK Quarterly Property Fund Index. Updated results to March 2021 including additional received data for below indexes: - MSCI/Mercer Australia Core Wholesale Monthly Property Fund Index - The Property Council of Australia/MSCI Australia Unlisted Retail Quarterly Property Fund Index - MSCI/REALPAC Canada Quarterly Property Fund Index - MSCI Pan-European Quarterly Property Fund Index

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