Additional Measures of Quarterly Financial Report Response Rates

## Manufacturing, Mining, Wholesales and Selected Services (MMWS) 2022

Overall Unit Response Rate (URR). The overall URR provides the percentage of sampled units (unweighted) who responded to the survey. In determining the response rate, a unit is determined to be a respondent if it provided adequate information for key Quarterly Financial Report (QFR) items. Therefore, an overall survey URR of 64.4% indicates 64.4% of eligible companies provided a valid response.

Sampled companies are divided into strata based on asset size (or receipts, if assets are missing) at the time of sampling. The largest companies (those with the equivalent of $250 million or more in assets) may be included in the sample with certainty. Companies with assets less than $250 million are sampled without certainty, and their responses are weighted by the approximate number of companies they represent in the population. Beginning with the fourth quarter of 2019, the asset level for inclusion in the sample of manufacturing companies was raised to $5 million from $250,000 to reduce reporting burden on small companies and meet changing budget constraints. During this same quarter, the certainty boundary was increased uniquely for each industry. The companies above the cutoff boundary are categorized as the certainty asset class, and the ones below the cutoff boundary are categorized as the noncertainty asset class. For additional information on sampling, see the "How the QFR Data are Collected" section at https://www.census.gov/econ/qfr/collection.html.

The Office of Management and Budget Standards and Guidelines for Statistical Surveys (2006) recommends analysis of nonresponse for surveys with overall URR below 80 percent. The standards also caution that serious data quality issues related to nonsampling occur when URR fall below 60 percent.

Graphs showing unrevised survey URRs broken down by asset size and industry category are displayed in Figures 1 and 2 below. As per the above standards, 60% is the minimum acceptable URR* and 80% or greater is the recommended URR.

Figure 1: MMWS URR by Asset Class Size
for the period 2018 Quarter 1 - 2022 Quarter 4
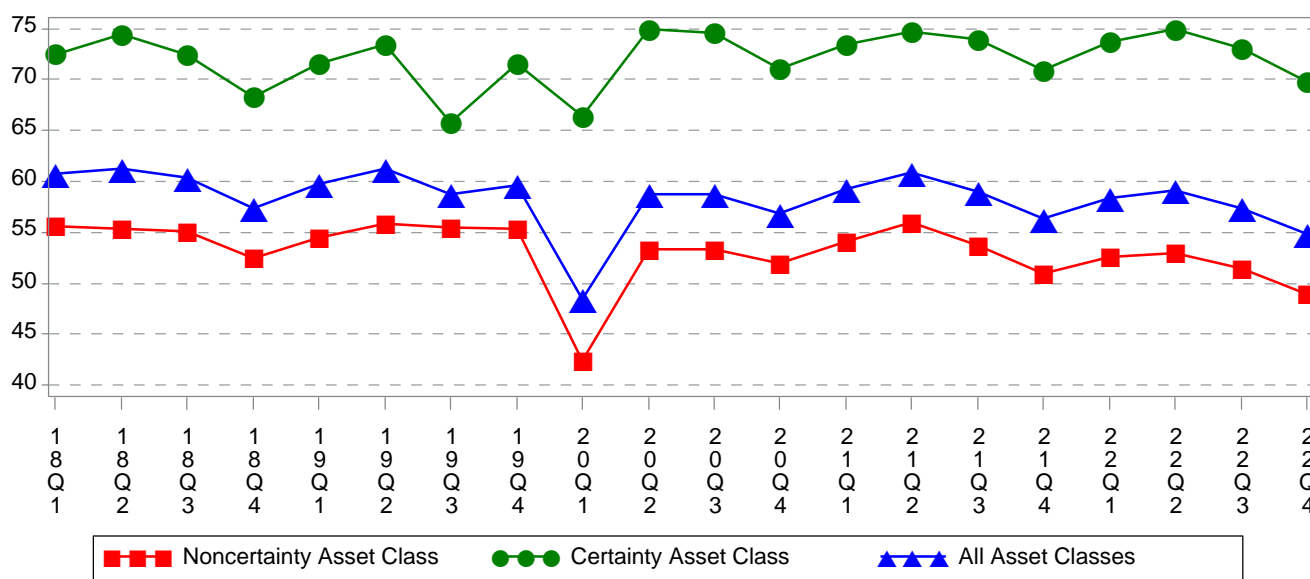
*These designations apply only at the ALL level, not when broken down into sub-categories such as asset sizes or industry categories.

Each company is assigned a North American Industry Classification System (NAICS) code, which classifies it as belonging to a particular industry. Individual industries are then combined into the following industry categories.

- INF = All Information with assets at least $50 million
- MFG = All Manufacturing with assets at least $250,000 for quarters before 2019Q4 and at least $5 million for quarters 2019Q4 and after
- MIN = All Mining with assets at least $50 million
- PTS = All Professional and Technical Services (except legal services) with assets at least $50 million
- WHS = All Wholesale Trade with assets at least $50 million

The following graph shows unit response rates for each of these industry categories. Response rates broken down by industry category are also available in the QFR press releases each quarter. The press release can be found at the QFR website, https://www.census.gov/econ/qfr/.

Figure 2: MMWS URR by NAICS Sector Classification
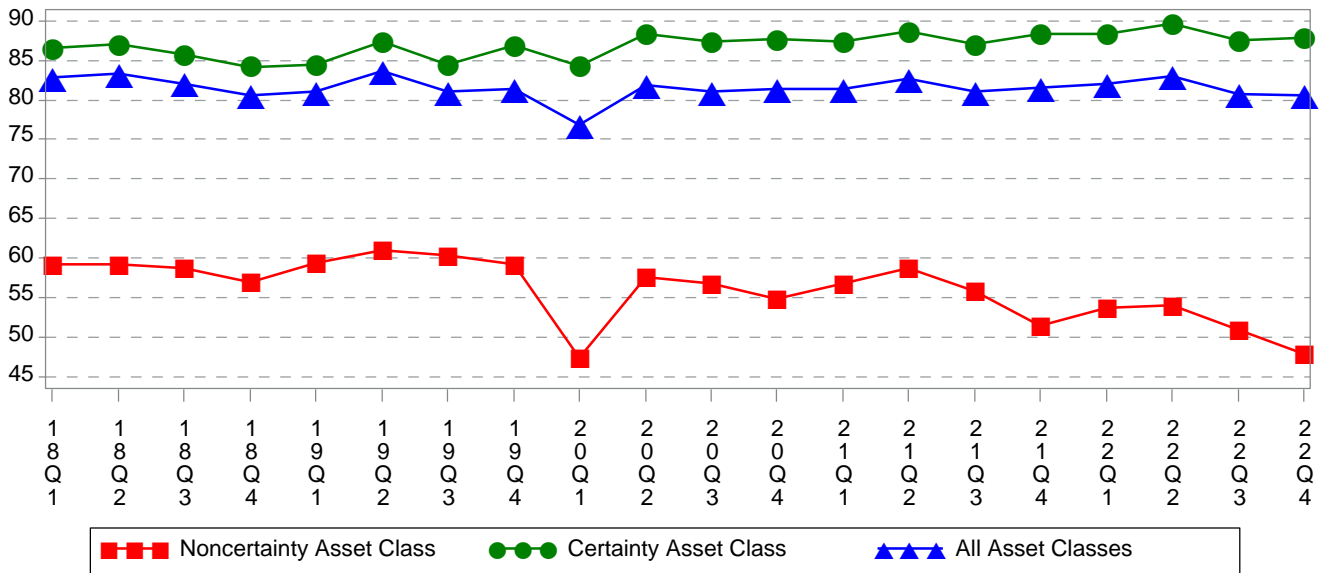for the period 2018 Quarter 1 - 2022 Quarter 4
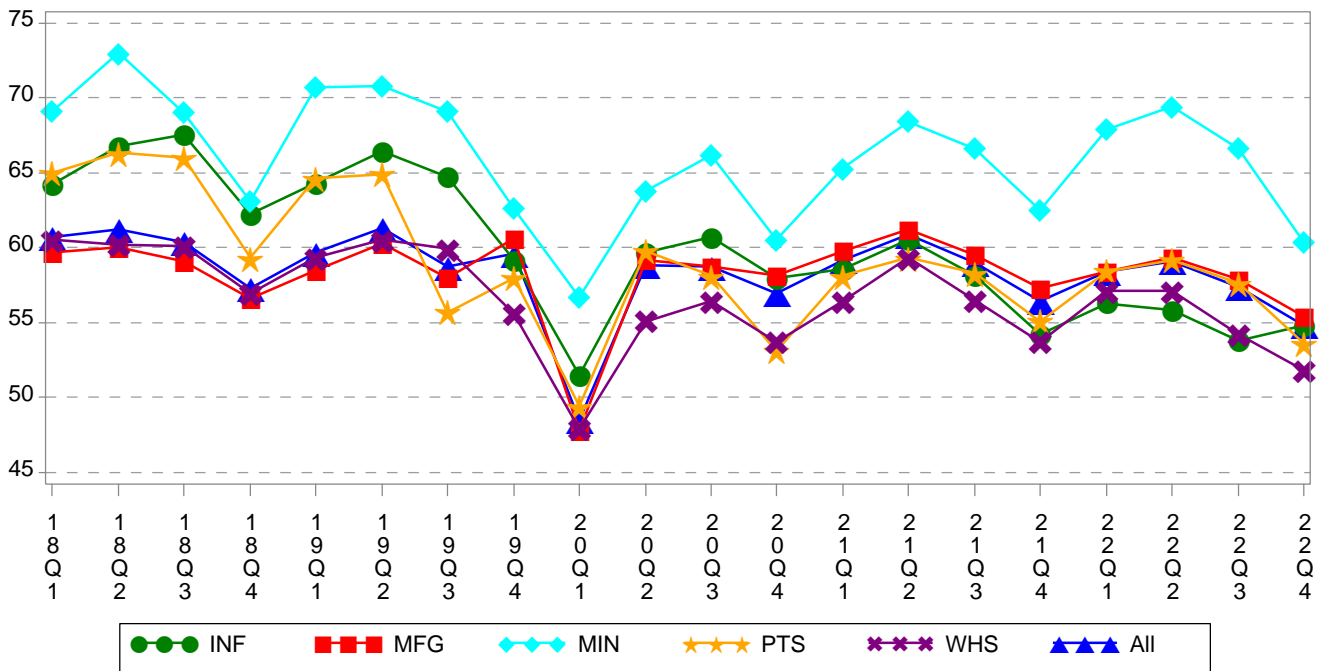
Total Quantity Response Rate (TQRR). For a "key" data item, TQRR is the percentage of the estimated total obtained from directly reported data and data which are considered equivalent in quality to reported. The TQRR is calculated for the following data items: Net Sales, Income Before Income Taxes, Depreciation, and Total Assets. For example, an industry-level TQRR of 91.8% for Net Sales in the Information industry indicates 91.8% of the estimated Net Sales is due to companies that either directly reported or are considered equivalent-in-quality to reported.

Graphs showing unrevised survey TQRRs for Net Sales, Income Before Income Taxes, Depreciation, and Total Assets broken down by asset size and industry category are displayed in Figures 3-10 below. For some items, negative values may be reported, thus the absolute values of the reported values are taken, and these absolute values are used in the TQRR calculation.

The Office of Management and Budget Standards and Guidelines for Statistical Surveys (2006) cautions that serious data quality issues related to nonresponse bias may occur when TQRR on key items fall below 70%. Therefore, 70% is designated the minimum* acceptable TQRR in Figures 3-10.

Figure 3: MMWS TQRR for Sales by Asset Class Size
for the period 2018 Quarter 1 - 2022 Quarter 4

*This designation applies only at the ALL level, not when broken down into sub-categories such as asset sizes or industry categories.

Figure 4: MMWS TQRR for Sales by NAICS Sector Classification
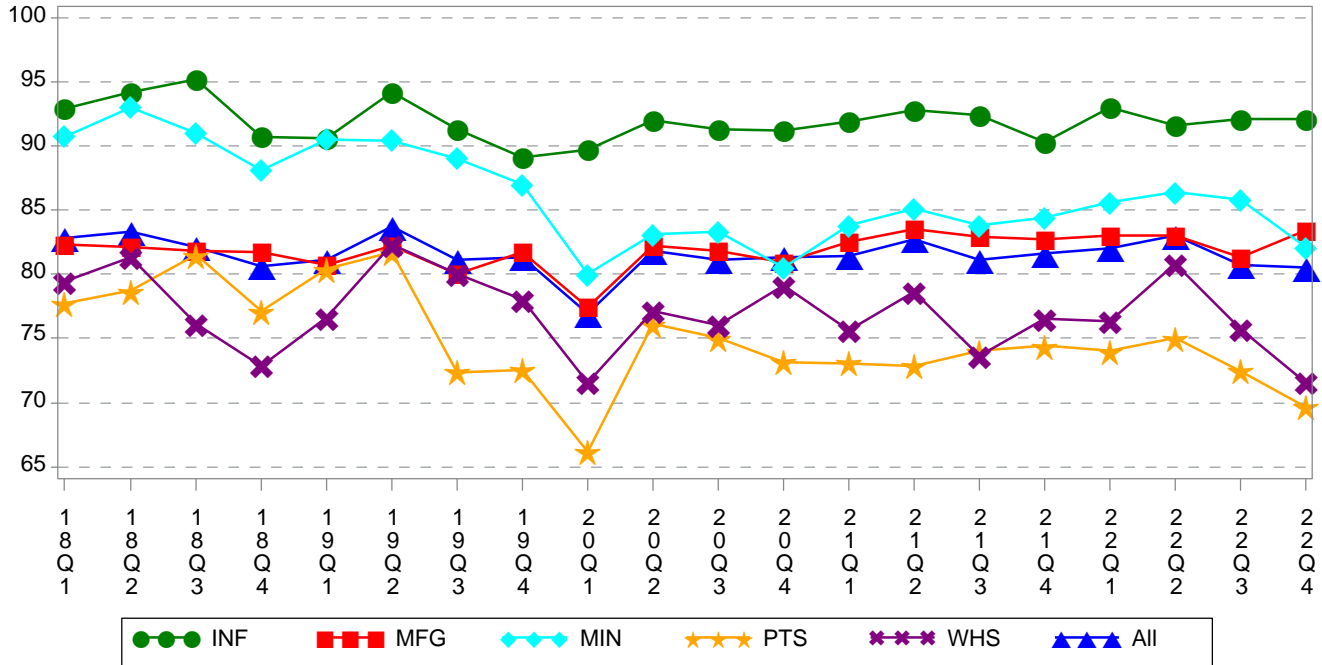for the period 2018 Quarter 1 - 2022 Quarter 4

Legend: INF, MFG, MIN, PTS, WHS, All

Figure 5: MMWS TQRR for Depreciation by Asset Class Size
for the period 2018 Quarter 1 - 2022 Quarter 4

Legend: ■ Noncertainty Asset Class ● Certainty Asset Class ▲ All Asset Classes
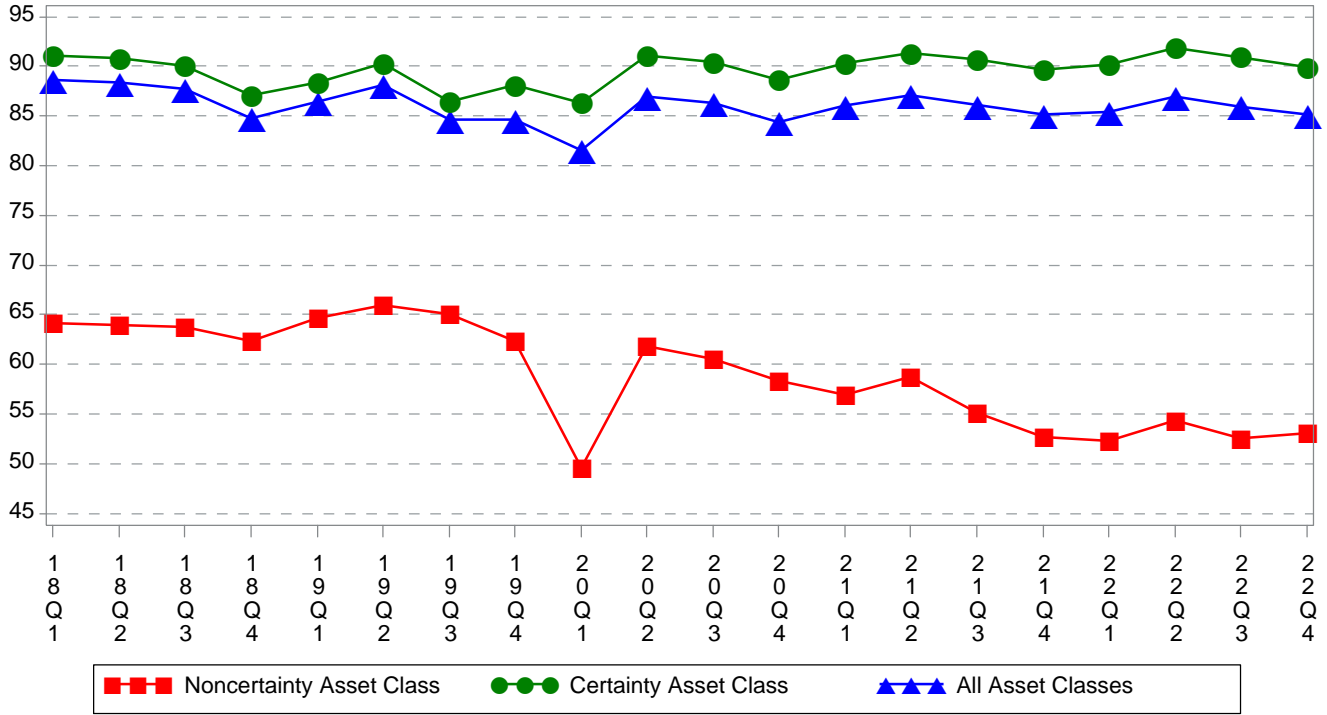
Figure 6: MMWS TQRR for Depreciation by NAICS Sector Classification
for the period 2018 Quarter 1 - 2022 Quarter 4
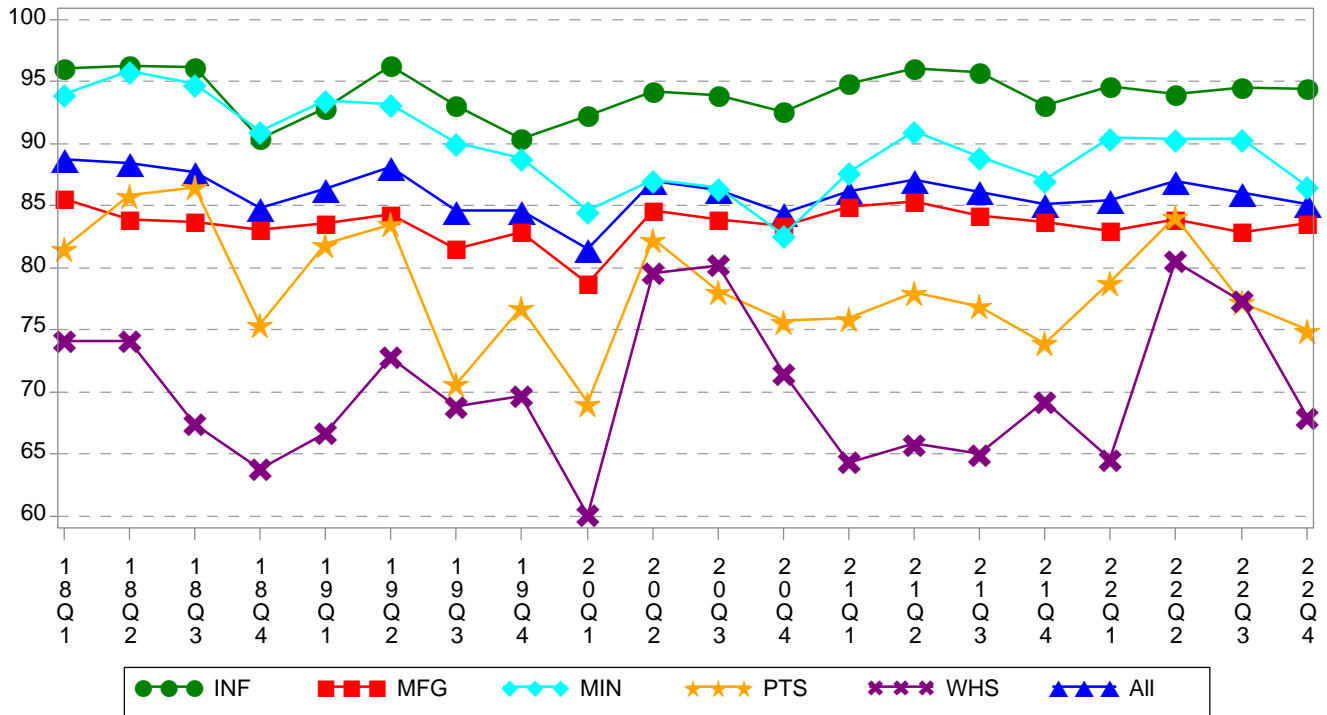

Legend: ● INF ■ MFG ◆ MIN ★ PTS ✕ WHS ▲ All

Figure 7: MMWS TQRR for Income Before Income Taxes by Asset Class Size
for the period 2018 Quarter 1 - 2022 Quarter 4

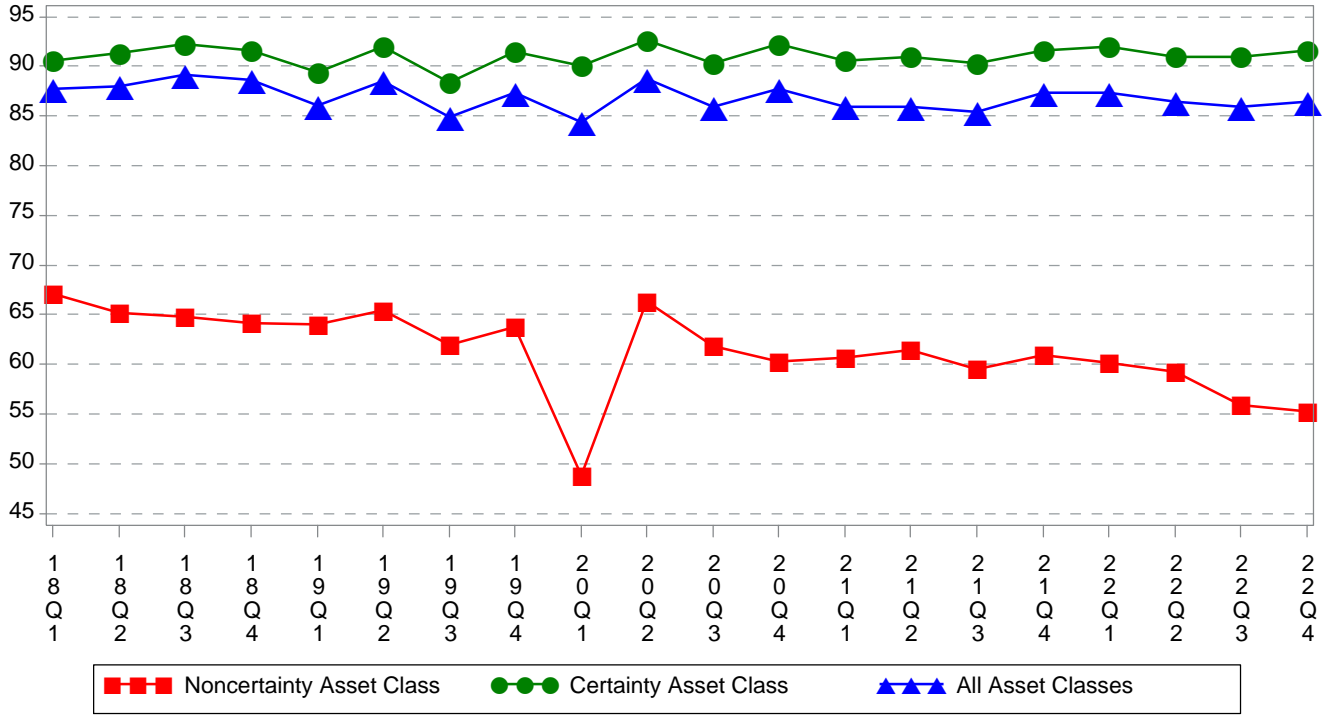Legend: Noncertainty Asset Class, Certainty Asset Class, All Asset Classes

Figure 8: MMWS TQRR for Income before Income Taxes by NAICS Sector Classification
for the period 2018 Quarter 1 - 2022 Quarter 4
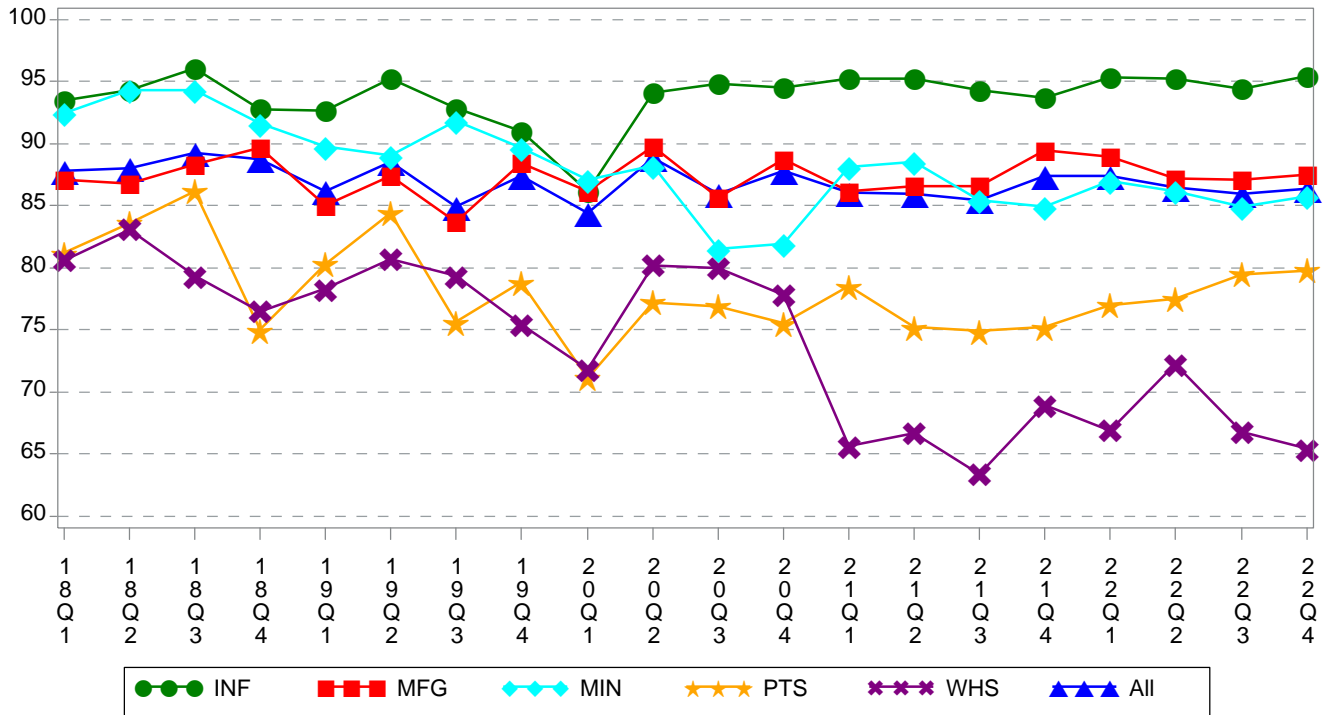

Legend: INF, MFG, MIN, PTS, WHS, All

Figure 9: MMWS TQRR for Assets by Asset Class Size
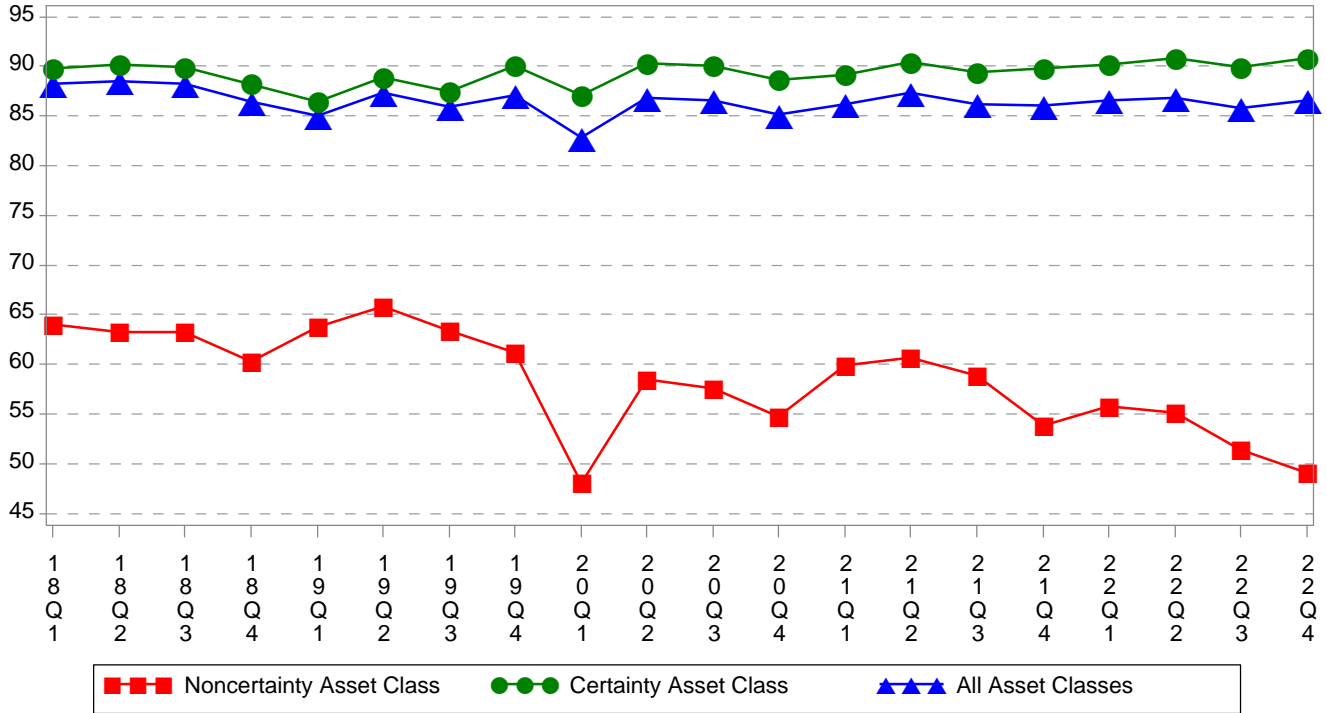for the period 2018 Quarter 1 - 2022 Quarter 4

Figure 10: MMWS TQRR for Assets by NAICS Sector Classification
for the period 2018 Quarter 1 - 2022 Quarter 4