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ForeComp: An R Package for Comparing Predictive Accuracy Using Fixed-Smoothing Asymptotics

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Abstract

We introduce **ForeComp**, an `R` package for comparing predictive accuracy using Diebold–Mariano type tests of equal predictive ability with standard and fixed-smoothing inference. The package provides a common interface for loss-differential based testing and includes `Plot_Tradeoff`, a visual diagnostic for bandwidth sensitivity and the size–power tradeoff. We illustrate the toolkit with Survey of Professional Forecasters applications and Monte Carlo evidence on finite-sample performance.

Keywords: forecast comparison, Diebold–Mariano test, fixed-b asymptotics, fixed-m asymptotics, long-run variance estimation, R package.

JEL Classification: C12, C22, C52, C53.

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1 Introduction

Comparing the predictive accuracy of competing forecasts is a fundamental task in empirical economics and finance. The seminal test of Diebold and Mariano (1995) (hereafter DM) provides a simple and widely used framework: given a sequence of loss differentials between two forecasts, the DM test assesses whether the expected loss differential is zero. The test statistic is straightforward to compute, requires minimal distributional assumptions, and is applicable to a broad range of loss functions.

Despite its simplicity, the DM test is well known to suffer from size distortions in finite samples, particularly when the evaluation sample size is small. The primary source of distortion is the estimation of the long-run variance of the loss differential. The original DM recommendation uses a rectangular kernel truncated at $h-1$ lags, where h is the forecast horizon, exploiting the theoretical MA($h-1$) structure of optimal forecast errors. In practice, however, the loss differential may exhibit serial correlation beyond $h-1$ lags, for example when forecasts are suboptimal, when in-sample parameter estimation introduces additional dependence, or when models are misspecified. In short evaluation samples, empirically relevant bandwidth choices can change both the size of the test and the resulting rejection decision.

A growing literature has proposed alternative inference procedures that deliver more reliable size control, especially in small samples. These include the modified DM test of Harvey et al. (1997), the use of positive-semidefinite kernels with data-dependent bandwidth selection (Newey and West, 1994), and fixed-smoothing approaches. Fixed-smoothing asymptotics, developed by Kiefer and Vogelsang (2005) for the fixed-b case and Sun (2013) for the fixed-m case, derive the limiting distribution of the test statistic under the assumption that the smoothing parameter does not vanish with sample size. The resulting reference distributions account for the estimation error in the long-run variance, improving size properties in short samples. Lazarus et al. (2018) provide practical recommendations for fixed-smoothing inference and emphasize the size–power tradeoff inherent in bandwidth choice.

The **ForeComp** package for `R` (R Core Team, 2024) consolidates these approaches into a single toolkit under a common interface. Table 1 summarizes the available procedures, spanning classical DM inference, fixed-b and fixed-m methods, orthonormal-series long-run variance estimation, and clustering-based approaches. The main testing functions take a vector of loss differentials as input and return a test statistic and rejection decision (and p-values where available), making it easy to compare conclusions across standard and fixed-smoothing procedures. Beyond offering multiple tests, **ForeComp** provides a visual diagnostic, `Plot_Tradeoff`, that assesses bandwidth robustness by plotting the implied size distortion–power loss tradeoff across a grid of bandwidth values and indicating where the null is rejected. This diagnostic helps users distinguish robust findings from bandwidth-driven rejections.

We illustrate the package with three empirical applications using the *Survey of Professional Forecasters* (SPF), including replications of Stark (2010) and Coroneo and Iacone (2020), and a bandwidth sensitivity analysis. We also report a Monte Carlo study, based on McCracken (2019), that summarizes finite-sample size and size-corrected power across the main procedures implemented in **ForeComp**. The simulations show that traditional normal-approximation procedures can substantially over-reject in short samples, while fixed-smoothing methods deliver improved size control with competitive size-corrected power.

The remainder of this paper is organized as follows. Section 2 establishes the testing framework. Section 3 describes the testing procedures available in **ForeComp**. Section 4 illustrates the common interface and the `Plot_Tradeoff` diagnostic. Sections 5–7 present three empirical applications, Section 8 reports a Monte Carlo simulation study of size and power, and Section 9 concludes. Complete simulation tables are collected in Appendix B.

2 Framework: Comparing Two Forecasts

Consider a scalar target variable y_{t+h} for which two competing h-step-ahead forecasts, $\hat{y}^{(1)}_{t+h|t}$ and $\hat{y}^{(2)}_{t+h|t}$, are available. Let $L(\cdot)$ denote a loss function (e.g., squared error), and define the *loss differential*

$$d_{t+h} \;=\; L\Big(y_{t+h},\, \hat{y}^{(1)}_{t+h|t}\Big) - L\Big(y_{t+h},\, \hat{y}^{(2)}_{t+h|t}\Big), \quad t = 1, 2, \ldots, P, \tag{1}$$

where P denotes the number of out-of-sample evaluation observations. A positive d_{t+h} indicates that forecast 1 incurs a larger loss than forecast 2 at time $t + h$.

The null hypothesis of *equal predictive ability* (EPA) is

$$H_0\colon \mathbb{E}[d_{t+h}] = 0 \qquad \text{versus} \qquad H_1\colon \mathbb{E}[d_{t+h}] \neq 0. \tag{2}$$

Under mild regularity conditions—stationarity and ergodicity of $\{d_{t+h}\}$, and the existence of a positive long-run variance $\sigma^2 = \sum_{j=-\infty}^{\infty} \gamma_j > 0$ where $\gamma_j = \mathrm{Cov}(d_{t+h},\, d_{t+h+j})$—the DM test statistic takes the form

$$\mathrm{DM} = \sqrt{P}\,\frac{\bar{d}}{\hat{\sigma}} \;\xrightarrow{d}\; N(0,1) \quad \text{as } P \to \infty, \tag{3}$$

where $\bar{d} = P^{-1} \sum_{t=1}^{P} d_{t+h}$ is the sample mean of the loss differentials and $\hat{\sigma}$ is a consistent

Table 1: Testing procedures implemented in **ForeComp**

Label	Function	Kernel	Bandwidth	Critical value
Standard procedures				
DM-R	`dm.test.r()`	Rectangular	$M = h - 1$	$N(0, 1)$
DM-M	`dm.test.r.m()`	Rectangular	$M = h - 1$	t_{P-1}
DM-NW	`dm.test.bt()`	Bartlett	NW(1994)	$N(0, 1)$
DM-NW-L	`dm.test.bt(Mopt=1)`	Bartlett	LLSW(2018)	$N(0, 1)$
Fixed-smoothing and alternative procedures				
DM-FB	`dm.test.bt.fb()`	Bartlett	LLSW(2018)	Fixed-b
DM-EWC	`dm.test.ewc.fb()`	EWC	LLSW(2018)	t_B
DM-WPE	`dm.test.wpe.fb()`	Daniell	CI(2020)	t_{2m}
DM-IM	`dm.test.im()`	—	q blocks	t_{q-1}

Notes: NW(1994) = Newey and West (1994), $M = \lceil 4(P/100)^{2/9} \rceil$. LLSW(2018) = Lazarus et al. (2018). CI(2020) = Coroneo and Iacone (2020). EWC = equal-weighted cosine estimator. The package also provides an experimental implementation of the Canay et al. (2017) randomization test (`dm.test.cnr.t`, `dm.test.cnr.w`); see the package documentation for details.

estimator of the long-run standard deviation σ. The critical challenge lies in the construction of $\hat{\sigma}$.

The generic long-run variance estimator based on weighted autocovariances is

$$\hat{\sigma}^2 = \hat{\gamma}_0 + 2 \sum_{j=1}^{P-1} k\left(\frac{j}{M}\right) \hat{\gamma}_j, \tag{4}$$

where $\hat{\gamma}_j = P^{-1} \sum_{t=1}^{P-j} (d_t - \bar{d})(d_{t+j} - \bar{d})$ is the sample autocovariance at lag j, $k(\cdot)$ is a kernel function, and M is a bandwidth parameter. The choice of kernel, bandwidth, and asymptotic approximation jointly determine the finite-sample properties of the resulting test.

3 Testing Procedures in ForeComp

Table 1 provides a summary of all testing procedures implemented in **ForeComp**. We organize the discussion into two groups: standard procedures that use normal or t-distribution critical values with small bandwidths (Section 3.1), and alternatives based on fixed-smoothing asymptotics or nonparametric methods (Section 3.2).

3.1 Standard Procedures

DM-R: Original DM test (`dm.test.r`). The original recommendation of Diebold and Mariano (1995) exploits the theoretical result that, under the null hypothesis with an optimal h-step-ahead forecast, the loss differential follows an MA($h-1$) process. This motivates using the rectangular kernel with truncation at $M = h - 1$:

$$\hat{\sigma}^2_{\mathrm{R}} = \hat{\gamma}_0 + 2\sum_{j=1}^{h-1} \hat{\gamma}_j. \tag{5}$$

The test statistic $\mathrm{DM}_R = \sqrt{P}\,\bar{d}\,/\,\hat{\sigma}_{\mathrm{R}}$ is compared with standard normal critical values. When $h = 1$ (one-step-ahead forecasts), the long-run variance reduces to the sample variance. This estimator is not guaranteed to be nonnegative.

DM-M: Modified DM test (`dm.test.r.m`). Harvey et al. (1997) proposed two finite-sample corrections. First, a bias correction factor:

$$\mathrm{DM}_M = \left[\frac{P + 1 - 2h + P^{-1}h(h-1)}{P}\right]^{1/2} \times \mathrm{DM}_R. \tag{6}$$

Second, the test statistic is compared with t_{P-1} critical values rather than standard normal, providing heavier tails that partially account for estimation uncertainty.

DM-NW: Bartlett kernel with normal approximation (`dm.test.bt`). To avoid the risk of negative variance estimates inherent in the rectangular kernel, one may use the Bartlett (triangular) kernel:

$$k_{\mathrm{B}}(x) = (1 - |x|)\,\mathbf{1}\{|x| \leq 1\}\,, \tag{7}$$

which guarantees $\hat{\sigma}^2 \geq 0$. The default bandwidth follows Newey and West (1994):

$$M_{\mathrm{NW}} = \left\lfloor 4\left(\frac{P}{100}\right)^{2/9} \right\rfloor. \tag{8}$$

Standard normal critical values are used. While the positive-semidefiniteness of the Bartlett kernel is advantageous, the relatively small NW bandwidth may fail to capture serial dependence beyond $h - 1$ lags, leading to size distortions similar to DM-R.

3.2 Fixed-Smoothing and Alternative Procedures

DM-FB: Bartlett kernel with fixed-b asymptotics (`dm.test.bt.fb`). The fixed-b approach of Kiefer and Vogelsang (2005) uses the same Bartlett kernel but with a substantially larger bandwidth,

$$M_{\text{FB}} = \lceil 1.3\sqrt{P} \rceil, \tag{9}$$

following the recommendation of Lazarus et al. (2018). Their bandwidth rule is motivated as a practical default that approximately minimizes a loss function trading off size distortions against power loss for fixed-b tests, rather than as an MSE-optimal choice for long-run variance estimation. In **ForeComp**, this LLSW rule is the default for `dm.test.bt.fb` when M is not supplied. The key difference from DM-NW is the asymptotic theory: letting $b = M/P$ remain fixed as $P \to \infty$, the test statistic converges to a nonstandard distribution $\Phi_{\text{BART}}(b)$ whose quantiles depend on b. For the Bartlett kernel, Kiefer and Vogelsang (2005) provide the approximation:

$$q_{0.975}(b) = 1.9600 + 2.9694\, b + 0.4160\, b^2 - 0.5324\, b^3, \tag{10}$$

for the 97.5% quantile (used in a two-sided 5% test). The larger bandwidth captures more serial dependence, while the adjusted critical values account for the inconsistency of the variance estimator, jointly producing much better size control.

DM-EWC: Equal-weighted cosine estimator (`dm.test.ewc.fb`). The equal-weighted cosine (EWC) estimator of Lazarus et al. (2018) is an orthonormal series estimator of the long-run variance:

$$\hat{\lambda}_j = \sqrt{\frac{2}{P}} \sum_{t=1}^{P} d_t \cos\left[\pi j \left(\frac{t-1/2}{P}\right)\right], \qquad \hat{\sigma}^2_{\text{EWC}} = \frac{1}{B}\sum_{j=1}^{B} \hat{\lambda}_j^2, \tag{11}$$

with bandwidth $B = \lfloor 0.4\, P^{2/3} \rfloor$. In Lazarus et al. (2018), this default is motivated by the same size–power tradeoff criterion used to select the Bartlett fixed-b bandwidth. Under fixed-b asymptotics, the test statistic follows a t_B distribution (Müller, 2004), making critical values readily available from standard tables.

DM-WPE: Weighted periodogram estimator with fixed-m asymptotics (`dm.test.wpe.fb`). Coroneo and Iacone (2020) apply the weighted periodogram estimator (WPE) with the

Daniell kernel to forecast comparison:

$$\hat{\sigma}^2_{\text{WPE}} = \frac{2\pi}{m} \sum_{j=1}^{m} I(\lambda_j), \qquad \lambda_j = \frac{2\pi j}{P}, \tag{12}$$

where $I(\lambda_j) = |(2\pi P)^{-1/2} \sum_{t=1}^{P} d_t e^{-i\lambda_j t}|^2$ is the periodogram and $m = \lfloor P^{1/3} \rfloor$ is the bandwidth. Under fixed-m asymptotics (Sun, 2013), the test statistic $\sqrt{P}\, \bar{d} \,/\, \hat{\sigma}_{\text{WPE}}$ follows a t_{2m} distribution.

DM-IM: Ibragimov–Müller test (`dm.test.im`). Ibragimov and Müller (2010) propose a clustering approach that avoids explicit long-run variance estimation. The evaluation sample is divided into q nonoverlapping blocks. The block means $\bar{d}_1, \ldots, \bar{d}_q$ are treated as q independent observations, and a standard t-test is applied:

$$\text{DM}_{\text{IM}} = \frac{\bar{m}}{\sqrt{s_q^2/q}}, \qquad s_q^2 = \frac{1}{q-1} \sum_{j=1}^{q} (\bar{d}_j - \bar{m})^2, \tag{13}$$

where $\bar{m} = q^{-1} \sum_{j=1}^{q} \bar{d}_j$. The critical values come from the t_{q-1} distribution. The approach is simple and robust but may lack power due to the small effective sample size q.

4 Package Usage

4.1 Installation

The **ForeComp** package can be installed from the package source:

```
# Install from local source
install.packages("ForeComp", repos = NULL, type = "source")

# Load the package
library(ForeComp)
```

4.2 Common Interface

All testing functions in **ForeComp** accept a numeric vector `d` of loss differentials as their first argument and return a list with elements `$rej` (logical rejection decision), `$stat` (test statistic), and `$pval` (p-value, where available). The significance level is controlled by the argument `cl` (default 0.05).

A typical workflow proceeds in two steps. As a running example, we compare the SPF consensus nowcast ($h = 0$) of real output growth against the no-change benchmark over 2007:Q1–2016:Q4 ($T = 40$). First, compute the loss differential from the forecast errors:

```
library(ForeComp)
df = RGDP[RGDP$X1 >= "2007:01" & RGDP$X1 <= "2016:04", ]

# Forecast errors
e_nc  = df$Realiz1 - df$NCfor_Step1
e_spf = df$Realiz1 - df$SPFfor_Step1

# Squared-error loss differential
d = e_nc^2 - e_spf^2
d = d[!is.na(d)] # T = 40
```

Second, apply the desired test:

```
result = dm.test.r(d, h = 1, cl = 0.05)
result$stat  # 2.79
result$pval  # p-value
result$rej   # TRUE (reject H0 at 5%)
```

4.3 Function Reference

Table 2 summarizes the key arguments for each function.

4.4 Comparing Multiple Tests

The common interface makes it straightforward to compare results across methods. Continuing the running example:

```
dm.test.r(d, h = 1)$stat   # DM-R:  2.79  (reject)
dm.test.r.m(d, h = 1)$stat # DM-M:  2.76  (reject)
dm.test.bt(d)$stat          # DM-NW: 2.24  (reject)
dm.test.bt.fb(d)$stat       # DM-FB: 2.26  (not reject)
dm.test.ewc.fb(d)$stat      # DM-EWC: 1.83 (not reject)
dm.test.wpe.fb(d)$stat      # DM-WPE: 1.98 (not reject)
```

Table 2: Function arguments in **ForeComp**

Function	Key arguments
`dm.test.r(d, h, cl)`	`h`: forecast horizon (default 1). Truncation = $h-1$.
`dm.test.r.m(d, h, cl)`	Same as `dm.test.r` but with HLN correction and t_{P-1} critical values.
`dm.test.bt(d, M, Mopt, cl)`	`M`: bandwidth (if `NA`, automatic). `Mopt`: 1 = LLSW ($M = \lceil 1.3\sqrt{P} \rceil$), 2 = NW(1994, default: $M = \lceil 4(P/100)^{2/9} \rceil$), 3 = textbook NW/Andrews ($M = \lceil 0.75 P^{1/3} \rceil$), 4 = CI baseline ($M = \lfloor P^{1/2} \rfloor$).
`dm.test.bt.fb(d, M, Mopt, cl)`	Same kernel as `dm.test.bt` but with fixed-b critical values. If `M = NA`, default `Mopt = 1` (LLSW) uses $M = \lceil 1.3\sqrt{P} \rceil$; `Mopt = 2,3,4` use NW(1994), textbook NW, and CI baseline, respectively.
`dm.test.ewc.fb(d, B, Bopt, cl)`	`B`: bandwidth (default: $\lfloor 0.4 P^{2/3} \rfloor$).
`dm.test.wpe.fb(d, M, Mopt, cl)`	`M`: bandwidth (default: $\lfloor P^{1/3} \rfloor$). Uses t_{2M} critical values.
`dm.test.im(d, q, cl)`	`q`: number of blocks (default 2).

```
dm.test.im(d, q = 5)$stat   # DM-IM: 2.15  (not reject)
```

The standard tests (DM-R, DM-M, DM-NW) all reject the null at 5%, while every fixed-smoothing alternative (DM-FB, DM-EWC, DM-WPE, DM-IM) does not. This divergence suggests that the rejections by the standard tests may be driven by size distortion rather than by strong evidence against equal predictive ability—a pattern consistent with the Monte Carlo findings in Section 8, which document substantial over-rejection by DM-R and DM-NW in small samples. When such a divergence arises, we recommend favoring the fixed-smoothing results, which are designed to maintain reliable size control in finite samples.

4.5 Bandwidth Sensitivity Diagnostic

The WCE-B test (fixed-b Bartlett) requires the practitioner to choose a bandwidth parameter M. In Coroneo and Iacone (2020), a common baseline is $M = \lfloor T^{1/2} \rfloor$ ("CI baseline"); the authors justify this choice by noting that it performed well in a preliminary Monte Carlo study (see their Supporting Information Appendix). In **ForeComp**, if the user does not supply M, `dm.test.bt.fb` defaults to the LLSW rule $M = \lceil 1.3\sqrt{T} \rceil$ ("package default"). This default is motivated by the loss-minimization criterion of Lazarus et al. (2018), which trades off size distortions against power loss under fixed-b inference. In practice, the rejection decision can be sensitive to the bandwidth choice: a test that rejects at one bandwidth may fail to reject at a slightly different M, or vice versa.

The Plot_Tradeoff function provides a visual diagnostic for this sensitivity. Given two sets of forecasts and a realized outcome series, it computes the WCE-B test statistic at each bandwidth M in a user-specified grid (or a default grid centered around the package default), and for each M it estimates the *size distortion* and *maximum power loss* via simulation. The size distortion at bandwidth M is defined as the difference between the empirical rejection rate under the null and the nominal level (5%), where the null distribution is approximated by fitting an ARIMA model to the demeaned loss differential and simulating from it. The maximum power loss is the largest gap between the oracle power envelope (the power of a test with known long-run variance) and the size-corrected power of the WCE-B test, maximized over a grid of local alternatives. In each tradeoff plot produced by the function, the green marker highlights the package default bandwidth. The function returns a list containing a ggplot2 plot object and the underlying data.

As an illustration, consider testing whether the SPF nowcast of real output growth outperforms the no-change benchmark in the subsample 2007:Q1–2016:Q4 ($T = 40$):

```
library(ForeComp)
# Subset SPF data: h=0, 2007:Q1-2016:Q4
df = RGDP[RGDP$X1 >= "2007:01" & RGDP$X1 <= "2016:04",
          c("SPFfor_Step1", "NCfor_Step1", "Realiz1")]
df = df[complete.cases(df), ]

output = Plot_Tradeoff(data = df, n_sim = 5000)
output[[1]] # size-power tradeoff plot (Figure 1)
output[[2]] # data frame: M, size distortion, power loss
```

Figure 1 shows the resulting tradeoff plot. Each marker on the curve corresponds to a specific bandwidth value M, annotated next to the point. Red crosses ($\times$) indicate bandwidths at which the WCE-B test rejects H_0 at the 5% level; red circles ($\bullet$) indicate bandwidths at which it does not reject. The green marker highlights the package default $M = \lceil 1.3\sqrt{T} \rceil = 9$. As M increases, the size distortion generally decreases (the test becomes more conservative) while the maximum power loss increases (the test loses ability to detect alternatives)—producing the characteristic tradeoff curve. In this example, only the smallest bandwidths ($M = 1, 2, 3$) reject the null; at the package default $M = 9$ and all larger bandwidths, the test does not reject. The non-rejection is robust across most of the frontier, and the figure makes it transparent how the practitioner could deviate from the default, moving to smaller M to favor power or to larger M to favor size control, while seeing exactly where the rejection decision changes. Application 3 presents additional examples using SPF data.

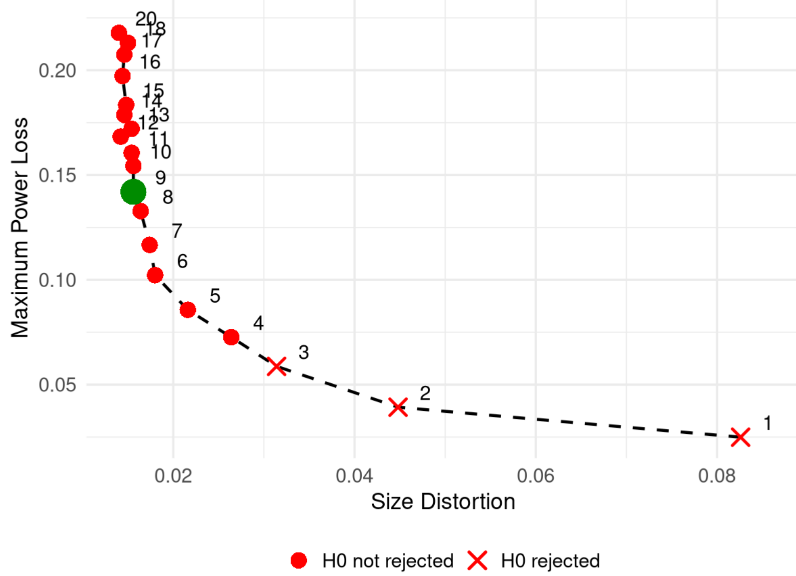


Figure 1: Size–power tradeoff: Real output growth, $h = 0$, 2007:Q1–2016:Q4 ($T = 40$). Each point corresponds to a bandwidth M. Red circles (•): H0 not rejected by WCE-B. Red crosses (×): H0 rejected. Green marker: package default $M = \lceil 1.3\sqrt{T} \rceil = 9$.

5 Application 1: SPF Forecast Evaluation

Our first application replicates selected results from Stark (2010), who evaluates the predictive accuracy of the SPF for U.S. real output growth. The SPF, maintained by the Federal Reserve Bank of Philadelphia, provides median forecasts at horizons from the current quarter ($h = 0$) through four quarters ahead ($h = 4$).

Stark (2010) compares SPF median forecasts against three benchmark models—no-change (NC), indirect autoregression (IAR), and direct autoregression (DAR)—using RMSE and Diebold–Mariano tests with a Bartlett kernel. The evaluation period is 1985:Q1–2007:Q4. A distinctive feature of this analysis is the use of multiple realization vintages (initial release through latest available) to assess the sensitivity of forecast evaluation to data revisions.

Using the **ForeComp** package data and the `dm.test.bt` function, we replicate Table 1 of Stark (2010). The data are loaded from the package:

```
library(ForeComp)
df = RGDP[RGDP$X1 >= "1985:01" & RGDP$X1 <= "2007:04", ]
```

For each realization vintage (Realiz1 through Realiz5) and each forecast horizon, we compute the squared forecast errors and apply the DM test with a Bartlett kernel and truncation $M = h + 4$, following the paper's specification:

Table 3: SPF RMSE statistics for output growth, 1985:Q1–2007:Q4 (replication of Stark (2010) Table 1)

		RMSE ratio (DM p-value)		
Horizon W	SPF RMSE	SPF/NC	SPF/IAR	SPF/DAR
Panel 1: Realizations on initial release ($n = 90$)				
0	1.40	0.681 (0.000)	0.806 (0.020)	0.806 (0.020)
1	1.65	0.771 (0.001)	0.925 (0.443)	0.933 (0.483)
2	1.77	0.782 (0.016)	0.986 (0.863)	0.985 (0.861)
3	1.80	0.770 (0.025)	0.994 (0.911)	0.993 (0.890)
4	1.76	0.736 (0.004)	0.981 (0.711)	0.948 (0.287)
Panel 2: Realizations one quarter after initial release ($n = 91$)				
0	1.69	0.778 (0.000)	0.878 (0.070)	0.878 (0.070)
1	1.82	0.826 (0.006)	0.925 (0.370)	0.936 (0.421)
2	1.91	0.785 (0.013)	0.956 (0.566)	0.958 (0.581)
3	1.95	0.758 (0.020)	0.969 (0.582)	0.963 (0.496)
4	1.95	0.742 (0.002)	0.975 (0.612)	0.953 (0.300)

Notes: Ratios below 1 indicate the SPF outperforms the benchmark. P-values (in parentheses) are from two-sided DM tests using the Bartlett kernel with truncation $M = W + 4$, computed via `dm.test.bt()`. NC = no-change, IAR = indirect autoregression, DAR = direct autoregression. Rows where any column contains `#N/A` are dropped (listwise deletion).

```
e_spf = as.numeric(realiz) - as.numeric(spf)
e_nc  = as.numeric(realiz) - as.numeric(nc)
d     = e_spf^2 - e_nc^2
d     = d[!is.na(d)] # listwise deletion of #N/A rows
test  = dm.test.bt(d, M = horizon + 4)
```

Table 3 reproduces Panels 1 and 2 of Stark (2010) Table 1. Panel 1 uses the initial-release realization; Panel 2 uses the realization available one quarter after initial release. We also replicate the remaining panels (not shown): Panels 1–4 match the original to the third decimal place, while Panel 5 (latest vintage) differs slightly because our data incorporate revisions beyond the 2010:Q2 vintage used in the original paper.

The results show that the SPF consistently outperforms the no-change benchmark (ratios well below 1 with small p-values), but performs similarly to the autoregressive benchmarks at longer horizons (ratios near 1 with large p-values). The RMSE levels increase across panels as the realization vintage moves further from initial release, reflecting the accumulation of data revisions. This application demonstrates both the direct usability of the package functions and the importance of data vintage choices in real-time forecast evaluation.

6 Application 2: Fixed-Smoothing Asymptotics for SPF Evaluation

Our second application replicates Coroneo and Iacone (2020), who demonstrate that standard DM tests can yield spuriously significant results in small evaluation samples, and that fixed-smoothing asymptotics provides a corrective.

Coroneo and Iacone (2020) evaluate the predictive accuracy of the SPF and the European Central Bank's Survey of Professional Forecasters (ECB SPF) against a random walk benchmark. They apply three variants of the DM test:

- **WCE-DM**: Rectangular kernel with truncation equal to the forecast horizon, standard normal critical values (equivalent to our DM-R with $h = \text{horizon} + 1$).
- **WCE-B**: Bartlett kernel with $M = \lfloor T^{1/2} \rfloor$ (CI baseline) and fixed-b critical values (our `dm.test.bt.fb` with explicit M).
- **WPE-D**: Daniell kernel with $m = \lfloor T^{1/3} \rfloor$ and fixed-m asymptotics (our `dm.test.wpe.fb` with explicit M).

The evaluation covers four U.S. macroeconomic variables (real output growth, inflation, unemployment, and the 3-month Treasury bill rate) over 1987:Q1–2016:Q4 ($T = 120$) and three 10-year subsamples ($T = 40$ each), plus ECB SPF forecasts of GDP growth and HICP inflation over 2006:Q1–2016:Q4 ($T = 44$).

A key methodological choice is the handling of missing values. Observations where the forecast error is undefined (due to `#N/A` entries in the SPF data) are set to zero rather than dropped, preserving the sample sizes reported in the paper. Additionally, only the first-release realization (Realiz1) is used for all horizons—Realiz1 through Realiz5 represent different data *vintages*, not different forecast horizons.

```
# Forecast errors (NAs set to 0, matching CI's approach)
e_nc  = as.numeric(realiz1) - as.numeric(nc)
e_spf = as.numeric(realiz1) - as.numeric(spf)
e_nc[is.na(e_nc)] = 0
e_spf[is.na(e_spf)] = 0
d = e_nc^2 - e_spf^2

# Three test variants
n = length(d)
```

Table 4: Real output growth: SPF versus random walk (replication of CI Table 1)

	Forecast horizon				
	$h = 0$	$h = 1$	$h = 2$	$h = 3$	$h = 4$
Evaluation period: 1987:Q1–2016:Q4, $T = 120$					
WCE-DM	4.85	2.78	1.84	1.46	2.13
WCE-B, $M = \lfloor T^{1/2} \rfloor$	4.47**	2.64**	1.96*	1.76	2.24**
WPE-D, $m = \lfloor T^{1/3} \rfloor$	5.21**	2.63**	1.86*	1.68	2.08*
Evaluation period: 1987:Q1–1996:Q4, $T = 40$					
WCE-DM	3.61	2.28	2.51	1.51	3.35
WCE-B	3.92**	2.18*	2.52**	1.68	2.01*
WPE-D	4.01**	2.01*	2.72**	1.55	2.38*
Evaluation period: 1997:Q1–2006:Q4, $T = 40$					
WCE-DM	2.27	3.21	1.37	0.87	1.84
WCE-B	2.28*	3.01**	1.23	0.94	1.87
WPE-D	2.04*	2.71**	1.13	0.84	1.68
Evaluation period: 2007:Q1–2016:Q4, $T = 40$					
WCE-DM	2.79	1.63	1.14	0.99	1.12
WCE-B	2.19*	1.59	1.22	1.09	1.10
WPE-D	1.98*	1.43	1.08	0.94	0.98

Notes: WCE-DM uses a normal approximation, with two-sided 5% and 10% critical values 1.96 and 1.645. WCE-B (fixed-b) and WPE-D (fixed-m) use fixed-smoothing asymptotics and associated reference distributions rather than the standard normal approximation; see Section 3.2 for details. Asterisks are reported only for WCE-B and WPE-D, where ** and * denote two-sided significance at the 5% and 10% levels.

```
dm_r   = dm.test.r(d, h = step)
dm_fb  = dm.test.bt.fb(d, M = floor(sqrt(n)))
dm_wpe = dm.test.wpe.fb(d, M = floor(n^(1/3)))
```

Table 4 reproduces Table 1 of Coroneo and Iacone (2020) for real output growth. The remaining four tables—GNP/GDP inflation, unemployment, the 3-month Treasury bill, and the ECB SPF—are reported in Appendix A (Tables 7–10). Our replication matches all 258 cells across all five tables exactly at two decimal places, confirming that the **ForeComp** implementations are consistent with the original analysis.

The results illustrate the practical importance of fixed-smoothing asymptotics. For real output growth, the standard normal-approximation DM statistic (WCE-DM) and the fixed-smoothing procedures (WCE-B and WPE-D) typically deliver the same qualitative inference, especially at conventional significance levels. There are, however, a few instances where

WCE-DM rejects but the fixed-smoothing procedures do not. For example, in the 1997:Q1–2006:Q4 subsample at horizon $h = 4$, WCE-DM equals 1.84 and would reject at the 10% level under the normal approximation, while both WCE-B and WPE-D fail to reject at 10%. Such disagreements are consistent with the tendency of normal-approximation DM tests to over-reject in short samples, as documented in our Monte Carlo results in Section 8.

7 Application 3: Bandwidth Sensitivity of the WCE-B Test

In Application 2, we follow Coroneo and Iacone (2020) and report WCE-B results under the CI baseline bandwidth $M = \lfloor T^{1/2} \rfloor$. In **ForeComp**, however, the default bandwidth for `dm.test.bt.fb` is the LLSW rule $M = \lceil 1.3\sqrt{T} \rceil$. Since the rejection decision may depend on this choice in small samples, the `Plot_Tradeoff` function allows practitioners to visualize how the test conclusion varies across a range of bandwidths. We apply this diagnostic to three cases drawn from the SPF evaluation in Application 2, comparing the SPF consensus forecast against a naïve (no-change) benchmark under squared-error loss.

Real output growth, $h = 0$, 2007:Q1–2016:Q4 ($T = 40$). Figure 1 displays the size–power tradeoff for the WCE-B test applied to the SPF nowcast of real output growth in the final subsample. The test rejects the null only at the smallest bandwidths ($M = 1, 2, 3$, marked with crosses); for all remaining bandwidths, including the package default $M = 9$ (green marker), the test does not reject (circles). The non-rejection at the default bandwidth is robust: the decision does not change as M increases beyond 9.

The default $M = 9$ sits on the tradeoff frontier. Moving to a slightly smaller M would reduce the maximum power loss but at the cost of increased size distortion; importantly, this shift does not change the rejection decision. Conversely, moving to a slightly larger M would reduce size distortion further, at the cost of additional power loss, again without changing the conclusion.

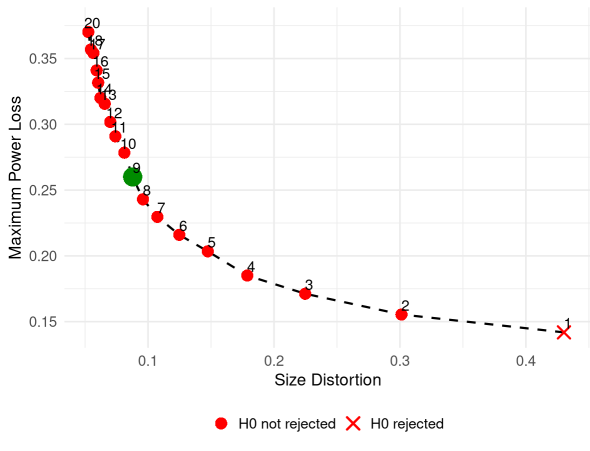
This figure illustrates a key benefit of the `Plot_Tradeoff` diagnostic: it allows the practitioner to navigate the tradeoff and deviate from the default bandwidth in a principled way. Depending on the practitioner's preference—whether to prioritize size control (by moving to larger M) or to preserve power (by moving to smaller M)—the figure makes the tradeoff explicit and enables an informed choice. In this example, the non-rejection is stable across most of the frontier, giving the practitioner confidence in the conclusion regardless of bandwidth preference.

Unemployment, $h = 4$: robust non-rejection and robust rejection ($T = 40$). Figure 2 displays the tradeoff plots for two subsamples of the unemployment forecast at the 4-quarter horizon. Panel (a) illustrates robust non-rejection (except at the smallest bandwidth), while panel (b) illustrates robust rejection across the bandwidth grid.

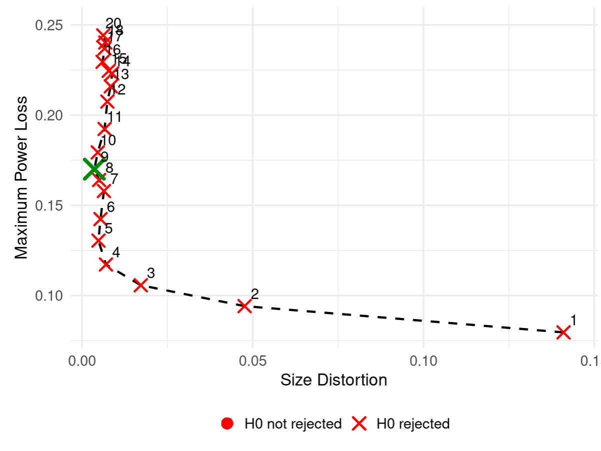
Panel (a) shows the middle subsample (1997:Q1–2006:Q4). The WCE-B test fails to reject the null at virtually every bandwidth; only at $M = 1$ does the test reject. At that bandwidth, the Bartlett kernel collapses to a simple variance estimator and the resulting test has severe size distortions. At the default $M = 9$ and all larger bandwidths, every marker is a circle (H0 not rejected).

Panel (b) shows the earlier subsample (1987:Q1–1996:Q4). Here the WCE-B test rejects at every bandwidth in the grid—all markers are crosses—indicating that the SPF forecast significantly outperforms the naïve benchmark in this subsample. Since the rejection is robust across bandwidths, the practitioner can be confident that the conclusion is not an artifact of bandwidth choice.

One difference worth highlighting is the *local* shape of the tradeoff frontier around the default bandwidth (green marker). Relative to panel (a), panel (b) features a steeper "cliff": moving to slightly smaller M reduces the maximum power loss (i.e., improves power) at negligible cost in terms of size distortion. In this example such a change would not overturn the test decision, but the visualization makes the practitioner's size–power tradeoff transparent and underscores that the most attractive bandwidth adjustment can be case-by-case.



(a) 1997:Q1–2006:Q4



(b) 1987:Q1–1996:Q4

Figure 2: Size–power tradeoff: Unemployment, $h = 4$, $T = 40$. Each point corresponds to a bandwidth M. Red circles (●): H0 not rejected by WCE-B. Red crosses (×): H0 rejected. Green marker: package default $M = \lceil 1.3\sqrt{T} \rceil = 9$.

These three examples illustrate the range of outcomes that `Plot_Tradeoff` can reveal.

When the rejection decision changes across the bandwidth grid (Figure 1), the test conclusion is fragile, and the practitioner should interpret the result with caution or consider the tradeoff between size control and power in choosing M. When the decision is stable across the entire frontier (Figure 2), either rejecting or not rejecting, the bandwidth choice is immaterial and the test provides a clear signal.

8 Monte Carlo Simulation

To systematically evaluate the finite-sample properties of the testing procedures in **ForeComp**, we conduct a Monte Carlo study based on the simulation design of McCracken (2019). We consider two data-generating processes (DGPs) that differ in the serial correlation structure of the loss differential, and we examine both empirical size and size-corrected power across a wide range of sample sizes and forecast horizons.

8.1 Data-Generating Processes

Both DGPs generate data under the null hypothesis of equal predictive ability, where a zero-forecast (Model 1: $\hat{y}^{(1)}_{t+h|t} = 0$) is compared against a rolling-mean forecast (Model 2: $\hat{y}^{(2)}_{t+h|t} = \widetilde{R}^{-1} \sum_{s=t-\widetilde{R}+1}^{t} y_s$) using squared-error loss. The parameters R and $\widetilde{R}$ govern, respectively, the serial correlation structure and the rolling estimation window.

Unconditional-Rolling (UCR) DGP. The target variable is generated as an MA($h-1$) process:

$$y_t = \mu + \sum_{k=0}^{h-1} \theta_k \, \varepsilon_{t-k}, \qquad \varepsilon_t \overset{\text{iid}}{\sim} N(0,1), \tag{14}$$

where $\theta_k = 0.5^k$ and μ is chosen so that the two models have equal expected squared-error loss. The resulting loss differential $d_{t+h} = e^2_{1,t+h} - e^2_{2,t+h}$ is serially correlated up to displacement $R-1$, which can far exceed $h-1$. This DGP is challenging for tests that assume MA($h-1$) structure (DM-R, DM-M), because the loss differential's actual serial dependence extends well beyond the truncation lag.

Conditional-Rolling (CR) DGP. The target variable is generated as an ARMA process:

$$y_t = \sum_{k=1}^{h-1} 0 \cdot y_{t-k} + \sum_{k=h}^{h+R-1} \frac{1}{2R} \, y_{t-k} + \varepsilon_t + \sum_{k=1}^{h-1} 0.5^k \, \varepsilon_{t-k}, \tag{15}$$

with 10,000 burn-in observations to reach stationarity. Under this DGP, the loss differential is serially correlated only up to displacement $h-1$. The CR design is therefore favorable to the rectangular-kernel methods (DM-R, DM-M), whose truncation at $h-1$ lags correctly captures the dependence structure.

8.2 Simulation Design

For each DGP, we vary four parameters:

- Forecast horizon: $h \in \{1, 3, 12\}$;
- Serial correlation range: $R \in \{25, 75, 125, 175\}$;
- Rolling window size: $\widetilde{R} \in \{25, 75, 125, 175\}$;
- Evaluation sample size: $P \in \{25, 75, 125, 175, 1000\}$.

This yields $3 \times 4 \times 4 \times 5 = 240$ parameter combinations per DGP. Each combination is replicated 5,000 times. At each replication, we apply nine test variants at the 5% nominal level: six single-configuration procedures (DM-R, DM-M, DM-NW, DM-NW-L, DM-FB, and DM-EWC), plus three DM-IM variants with $q \in \{2, 5, 10\}$. DM-NW uses the Newey and West (1994) plug-in bandwidth $M = \lceil 4(P/100)^{2/9} \rceil$ with normal critical values. DM-NW-L uses the larger LLSW bandwidth $M = \lceil 1.3\sqrt{P} \rceil$ but retains normal critical values, isolating the effect of the bandwidth increase from the change in critical values. For the fixed-smoothing procedures DM-FB and DM-EWC, we use the package default bandwidth choices: DM-FB sets $M = \lceil 1.3\sqrt{P} \rceil$ and DM-EWC sets $B = \lfloor 0.4P^{2/3} \rfloor$, both following Lazarus et al. (2018).

The parameters R and $\widetilde{R}$ play distinct roles. The serial correlation range R is a feature of the DGP that determines the extent of dependence in the loss differential: under the UCR design, the loss differential is autocorrelated up to displacement $R-1$, which can far exceed the forecast horizon h. The rolling window $\widetilde{R}$ is the in-sample estimation window used by the rolling-mean forecaster. When $R = \widetilde{R}$, the DGP is calibrated so that the two forecasters have equal expected loss—i.e., the null hypothesis holds exactly. When $R \neq \widetilde{R}$, the null is violated and one forecaster dominates, providing a setting for measuring power.

The ratio P/R is also informative. When P is small relative to R—as often arises in macroeconomic forecast evaluation, where evaluation samples are short—the serial correlation in the loss differential is large relative to the sample, and standard tests are most vulnerable to size distortion. Conversely, when P is large (e.g., P = 1,000), all methods tend to be well-sized because the law of large numbers dominates.

8.3 Size

The *empirical size* of a test is the fraction of the 5,000 replications in which the null hypothesis is rejected when $R = \widetilde{R}$ (i.e., under H_0). A well-calibrated test at the 5% nominal level should yield empirical rejection frequencies close to 0.05.

Table 5 reports empirical size by forecast horizon h for two evaluation sample sizes, $P \in \{75, 1{,}000\}$, in both DGPs. Each entry averages over the four on-diagonal values $R = \widetilde{R} \in \{25, 75, 125, 175\}$.

Under the UCR DGP (Panel A), size distortion is concentrated in the smaller evaluation sample. The standard procedures DM-R, DM-M, and DM-NW over-reject, with the problem most pronounced at longer horizons. For example, at $P = 75$ and $h = 12$, DM-R rejects 0.160 of the time and DM-NW rejects 0.127, far above the nominal 0.05. By contrast, the fixed-smoothing methods DM-FB and DM-EWC remain close to nominal size across horizons and sample sizes. The IM test is well sized for $q = 2$ and becomes mildly oversized as the number of blocks increases.

The DM-NW-L row isolates the effect of simply increasing the bandwidth without adjusting the critical values. At $P = 75$, DM-NW-L over-rejects at rates of 0.099–0.118, *worse* than DM-NW at short horizons ($h = 1, 3$) despite using the same LLSW bandwidth as DM-FB. The large bandwidth reduces bias in the long-run variance estimate but introduces substantial estimation noise; normal critical values, which do not account for this noise, lead to even larger size distortions. By contrast, DM-FB pairs the same bandwidth with fixed-b critical values that widen the rejection region to account for estimation uncertainty, yielding size close to 0.05. At $P = 1{,}000$, DM-NW-L approaches the nominal level (0.050–0.052) as the estimation noise diminishes, whereas DM-FB is mildly conservative (0.038–0.040). This comparison demonstrates that the improved size control of the Lazarus et al. (2018) recommendation comes from the combination of a large bandwidth *and* fixed-b critical values, not from the bandwidth increase alone.

Under the CR DGP (Panel B), where the dependence structure is favorable to the rectangular-kernel truncation at $h - 1$, size distortions are smaller but the same message holds in short samples. At $P = 75$ and $h = 12$, DM-R and DM-NW still reject at rates of 0.155 and 0.116, while fixed-smoothing procedures are much closer to 0.05. DM-NW-L again over-rejects (0.110–0.119), confirming that the large bandwidth alone does not deliver reliable size control. For DM-IM, larger block counts lead to over-rejection in the large sample, for example DM-IM(q=5) rejects 0.093 at $P = 1{,}000$ and $h = 3$.

Table 5: Summary of empirical size (nominal 5%), by evaluation sample size P

	$P = 75$			$P = 1{,}000$		
Method	$h = 1$	$h = 3$	$h = 12$	$h = 1$	$h = 3$	$h = 12$
Panel A: Unconditional-Rolling (UCR) DGP						
DM-R	0.047	0.061	0.160	0.025	0.025	0.040
DM-M	0.042	0.048	0.108	0.024	0.025	0.037
DM-NW	0.059	0.087	0.127	0.029	0.036	0.055
DM-NW-L	0.099	0.106	0.118	0.051	0.052	0.050
DM-FB	0.044	0.045	0.052	0.040	0.040	0.038
DM-EWC	0.052	0.041	0.045	0.038	0.037	0.036
DM-IM (q=2)	0.051	0.047	0.046	0.052	0.052	0.048
DM-IM (q=5)	0.055	0.047	0.045	0.067	0.066	0.057
DM-IM (q=10)	0.052	0.052	0.062	0.061	0.062	0.053
Panel B: Conditional-Rolling (CR) DGP						
DM-R	0.055	0.068	0.155	0.049	0.052	0.055
DM-M	0.049	0.054	0.103	0.048	0.052	0.053
DM-NW	0.070	0.096	0.116	0.055	0.068	0.074
DM-NW-L	0.113	0.119	0.110	0.082	0.082	0.068
DM-FB	0.053	0.051	0.048	0.068	0.067	0.053
DM-EWC	0.060	0.046	0.043	0.064	0.063	0.049
DM-IM (q=2)	0.052	0.049	0.044	0.058	0.060	0.055
DM-IM (q=5)	0.062	0.052	0.041	0.096	0.093	0.072
DM-IM (q=10)	0.061	0.058	0.058	0.092	0.087	0.070

Notes: Each entry is the mean rejection frequency across on-diagonal designs $R = \widetilde{R} \in \{25, 75, 125, 175\}$ for the given (P, h) pair. Reported panels are restricted to $P \in \{75, 1{,}000\}$. Complete cell-by-cell results are in Appendix B.

8.4 Size-Corrected Power

Raw rejection frequencies under H_1 (i.e., when $\widetilde{R} \neq R$) confound the test's genuine ability to detect deviations from the null with its tendency to over-reject under H_0. To isolate the former, we compute *size-corrected power*. For each on-diagonal configuration $(R = \widetilde{R}, P, h)$, we extract the 95th percentile of $|\mathrm{DM}|$ across the 5,000 replications as the size-corrected critical value:

$$c^*_{0.95}(R, P, h) = Q_{0.95}\big(\{|\mathrm{DM}_i|\}_{i=1}^{5000}\big)\,. \tag{16}$$

Table 6: Size-corrected power, UCR DGP ($\widetilde{R} = 25$, averaged over $R \in \{75, 125, 175\}$)

	Panel A: $P = 75$			Panel B: $P = 1{,}000$		
Method	$h = 1$	$h = 3$	$h = 12$	$h = 1$	$h = 3$	$h = 12$
DM-R	0.086	0.078	0.066	0.751	0.710	0.606
DM-M	0.086	0.078	0.066	0.751	0.710	0.606
DM-NW	0.104	0.079	0.076	0.766	0.715	0.628
DM-NW-L	0.127	0.097	0.068	0.806	0.754	0.627
DM-FB	0.127	0.097	0.068	0.806	0.754	0.627
DM-EWC	0.121	0.092	0.062	0.812	0.756	0.630
DM-IM (q=2)	0.085	0.077	0.054	0.194	0.180	0.133
DM-IM (q=5)	0.124	0.106	0.066	0.568	0.500	0.339
DM-IM (q=10)	0.119	0.087	0.070	0.709	0.648	0.493

Notes: Each entry is the mean size-corrected rejection frequency across $R \in \{75, 125, 175\}$ for the given (P, h) pair and $\widetilde{R} = 25$. Complete cell-by-cell results are in Appendix B.

We then recompute the rejection frequency for all off-diagonal configurations ($\widetilde{R} \neq R$) using this critical value instead of the asymptotic one:

$$\text{Size-corrected power} = \frac{1}{5000} \sum_{i=1}^{5000} \mathbf{1}\{|\text{DM}_i| > c^*_{0.95}(R, P, h)\}\,. \tag{17}$$

Because the critical value $c^*_{0.95}$ is calibrated to deliver exactly 5% rejection under H_0, the size-corrected power strips away size distortion and measures only the test's ability to discriminate between the null and alternative.

Table 6 reports the size-corrected power under the UCR DGP for two representative scenarios that hold P and $\widetilde{R}$ fixed. In each panel, the rolling window is fixed at $\widetilde{R} = 25$ and the power is averaged over the three off-diagonal values $R \in \{75, 125, 175\}$. Panel A uses $P = 75$ (a small evaluation sample typical of macroeconomic forecast comparisons), while Panel B uses $P = 1{,}000$ (a large sample in which all tests have substantial power). We report DM-IM with $q \in \{2, 5, 10\}$ to examine how the number of blocks affects the size–power trade-off.

Table 6 shows that, after correcting for size, fixed-smoothing methods do not sacrifice power relative to traditional normal-approximation procedures. In the small-sample case (Panel A, $P = 75$), the fixed-b Bartlett test (DM-FB) and the EWC-based test (DM-EWC) deliver size-corrected power that is comparable to, and often higher than, DM-R and DM-NW (for example, at $h = 1$, 0.127 and 0.121 versus 0.086 and 0.104). In the large-sample case (Panel B, $P = 1{,}000$), all kernel-based methods have high power, with DM-FB and DM-

EWC matching or slightly exceeding DM-R. Notably, DM-NW-L and DM-FB have identical size-corrected power in every cell, which is expected: both use the same bandwidth and hence the same test statistic, so size correction equalizes them. The difference between the two lies entirely in the choice of critical values, which affects only uncorrected size. Thus, in our designs, the improved size control of fixed-smoothing inference does not come at a meaningful power cost. As expected, the IM test gains power as the number of blocks increases, and power declines at longer horizons.

9 Conclusion

The **ForeComp** package provides an `R` toolkit for comparing predictive accuracy using Diebold–Mariano type tests under a common interface. It includes both standard and fixed-smoothing procedures and the `Plot_Tradeoff` diagnostic for bandwidth sensitivity. Across three Survey of Professional Forecasters applications and Monte Carlo experiments, we find that standard normal-approximation tests can substantially over-reject in short samples, while fixed-smoothing methods offer improved size control with competitive size-corrected power. We recommend reporting fixed-smoothing results and using `Plot_Tradeoff` to assess bandwidth robustness.

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A Additional Replication Tables for Application 2

This appendix reports the remaining tables from the replication of Coroneo and Iacone (2020). Table 4 (real output growth) appears in the main text. Tables 7–10 below complete the replication of all five tables from the original paper.

Table 7: GNP/GDP inflation: SPF versus random walk (replication of CI Table 2)

	Forecast horizon				
	$h = 0$	$h = 1$	$h = 2$	$h = 3$	$h = 4$
Evaluation period: 1987:Q1–2016:Q4, $T = 120$					
WCE-DM	3.99	3.87	2.52	1.18	2.46
WCE-B	2.81**	3.68**	2.72**	1.02	2.54**
WPE-D	2.48**	3.53**	2.38**	0.86	2.25*
Evaluation period: 1987:Q1–1996:Q4, $T = 40$					
WCE-DM	1.31	2.42	1.22	0.04	1.31
WCE-B	1.36	2.37*	1.39	0.03	1.38
WPE-D	1.40	2.09*	1.55	0.03	1.17
Evaluation period: 1997:Q1–2006:Q4, $T = 40$					
WCE-DM	2.28	1.67	1.06	0.98	0.67
WCE-B	2.23*	1.66	0.99	1.01	0.78
WPE-D	2.25*	1.87	0.97	0.98	0.72
Evaluation period: 2007:Q1–2016:Q4, $T = 40$					
WCE-DM	3.66	3.17	2.10	0.97	3.13
WCE-B	2.75**	2.98**	2.29*	0.93	2.31*
WPE-D	2.47**	3.10**	1.91	0.86	2.25*

Notes: WCE-DM uses a normal approximation, with two-sided 5% and 10% critical values 1.96 and 1.645. WCE-B (fixed-b) and WPE-D (fixed-m) use fixed-smoothing asymptotics and associated reference distributions rather than the standard normal approximation; see Section 3.2 for details. Asterisks are reported only for WCE-B and WPE-D, where ** and * denote two-sided significance at the 5% and 10% levels.

Table 8: Unemployment rate: SPF versus random walk (replication of CI Table 3)

	Forecast horizon				
	$h = 0$	$h = 1$	$h = 2$	$h = 3$	$h = 4$
Evaluation period: 1987:Q1–2016:Q4, $T = 120$					
WCE-DM	3.84	2.15	1.98	2.06	2.27
WCE-B	2.37**	1.99*	2.05*	2.20*	2.46**
WPE-D	2.14*	1.86*	1.88*	2.00*	2.20*
Evaluation period: 1987:Q1–1996:Q4, $T = 40$					
WCE-DM	3.47	1.72	1.66	2.07	2.52
WCE-B	3.13**	1.89	1.93	2.37*	2.57**
WPE-D	2.53**	1.61	1.58	1.89	2.01*
Evaluation period: 1997:Q1–2006:Q4, $T = 40$					
WCE-DM	2.17	1.75	1.47	1.23	1.15
WCE-B	2.23*	1.75	1.60	1.40	1.31
WPE-D	2.02*	1.51	1.36	1.17	1.09
Evaluation period: 2007:Q1–2016:Q4, $T = 40$					
WCE-DM	2.83	1.72	1.64	1.82	2.19
WCE-B	1.81	1.68	1.80	2.04*	2.42**
WPE-D	1.57	1.43	1.52	1.73	2.04*

Notes: WCE-DM uses a normal approximation, with two-sided 5% and 10% critical values 1.96 and 1.645. WCE-B (fixed-b) and WPE-D (fixed-m) use fixed-smoothing asymptotics and associated reference distributions rather than the standard normal approximation; see Section 3.2 for details. Asterisks are reported only for WCE-B and WPE-D, where ** and * denote two-sided significance at the 5% and 10% levels.

Table 9: Three-month Treasury bill: SPF versus random walk (replication of CI Table 4)

	Forecast horizon				
	$h = 0$	$h = 1$	$h = 2$	$h = 3$	$h = 4$
Evaluation period: 1987:Q1–2016:Q4, $T = 120$					
WCE-DM	5.05	3.79	3.16	2.72	1.76
WCE-B	3.84**	3.78**	3.54**	3.11**	1.96*
WPE-D	3.49**	3.58**	3.52**	3.27**	2.00*
Evaluation period: 1987:Q1–1996:Q4, $T = 40$					
WCE-DM	4.73	3.01	2.58	2.77	2.82
WCE-B	4.10**	3.50**	3.10**	2.94**	2.63**
WPE-D	3.17**	2.68**	2.56**	2.53**	2.10*
Evaluation period: 1997:Q1–2006:Q4, $T = 40$					
WCE-DM	3.02	2.46	2.10	1.69	1.07
WCE-B	2.18*	2.34*	2.28*	1.85	1.16
WPE-D	1.82	1.93	1.87	1.52	0.95
Evaluation period: 2007:Q1–2016:Q4, $T = 40$					
WCE-DM	1.68	1.19	1.14	0.77	−0.47
WCE-B	1.33	1.23	1.03	0.71	−0.46
WPE-D	1.17	1.09	0.92	0.65	−0.45

Notes: WCE-DM uses a normal approximation, with two-sided 5% and 10% critical values 1.96 and 1.645. WCE-B (fixed-b) and WPE-D (fixed-m) use fixed-smoothing asymptotics and associated reference distributions rather than the standard normal approximation; see Section 3.2 for details. Asterisks are reported only for WCE-B and WPE-D, where ** and * denote two-sided significance at the 5% and 10% levels.

Table 10: European Central Bank's Survey of Professional Forecasters (ECB SPF) (replication of CI Table 5)

	GDP growth			HICP inflation		
Forecast horizon (years)	1	2	5	1	2	5
WCE-DM	2.09	1.80	1.04	1.28	1.75	1.04
WCE-B	1.84	2.04*	1.08	1.18	1.79	0.89
WPE-D	1.54	1.81	0.89	0.97	1.48	0.71

Notes: Evaluation period: 2006:Q1–2016:Q4 ($T = 44$). WCE-DM uses a normal approximation, with two-sided 5% and 10% critical values 1.96 and 1.645. WCE-B (fixed-b) and WPE-D (fixed-m) use fixed-smoothing asymptotics and associated reference distributions rather than the standard normal approximation; see Section 3.2 for details. Asterisks are reported only for WCE-B and WPE-D, where ** and * denote two-sided significance at the 5% and 10% levels.

B Monte Carlo Simulation Tables

This appendix reports the complete Monte Carlo results for all nine test variants considered in the simulation design under both DGPs. Each table is a 16×15 matrix with rows indexed by $(R, \widetilde{R})$ and columns indexed by (h, P). Diagonal entries ($R = \widetilde{R}$, shown in bold) give the empirical size; off-diagonal entries give (raw or size-corrected) rejection frequencies.

For DM-IM, if $n = P$ is not divisible by the chosen number of blocks q, we use a balanced nonoverlapping partition: letting $b_0 = \lfloor n/q \rfloor$ and $r = n \bmod q$, the first r blocks have size $b_0 + 1$ and the remaining $q - r$ blocks have size b_0. Hence block sizes differ by at most one.

For ease of reference, the tables are grouped into four blocks:

- **UCR Size Tables**: empirical size under the Unconditional-Rolling (UCR) DGP.
- **UCR Size-Corrected Power Tables**: size-corrected power under the UCR DGP.
- **CR Size Tables**: empirical size under the Conditional-Rolling (CR) DGP.
- **CR Size-Corrected Power Tables**: size-corrected power under the CR DGP.

UCR Size Tables

Table 11: Size, Unconditional-Rolling DGP, DM-R

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.058**	**0.034**	**0.030**	**0.026**	**0.019**	**0.109**	**0.051**	**0.044**	**0.040**	**0.026**	**0.349**	**0.166**	**0.127**	**0.106**	**0.049**
25	75	0.070	0.061	0.045	0.048	0.406	0.142	0.072	0.065	0.071	0.395	0.374	0.212	0.173	0.160	0.410
25	125	0.075	0.081	0.092	0.096	0.670	0.160	0.109	0.111	0.119	0.657	0.386	0.243	0.214	0.207	0.623
25	175	0.083	0.101	0.124	0.142	0.783	0.154	0.127	0.149	0.164	0.763	0.369	0.262	0.250	0.242	0.746
75	25	0.061	0.078	0.099	0.115	0.466	0.103	0.084	0.097	0.117	0.426	0.354	0.187	0.145	0.158	0.386
75	75	**0.063**	**0.045**	**0.040**	**0.035**	**0.024**	**0.120**	**0.062**	**0.048**	**0.041**	**0.024**	**0.344**	**0.153**	**0.115**	**0.086**	**0.033**
75	125	0.070	0.049	0.042	0.036	0.025	0.122	0.066	0.057	0.044	0.029	0.368	0.170	0.116	0.090	0.050
75	175	0.068	0.052	0.048	0.045	0.056	0.126	0.076	0.056	0.054	0.062	0.354	0.192	0.130	0.112	0.084
125	25	0.073	0.093	0.133	0.162	0.694	0.107	0.104	0.124	0.168	0.656	0.349	0.190	0.175	0.188	0.573
125	75	0.057	0.055	0.052	0.052	0.073	0.113	0.064	0.059	0.057	0.074	0.340	0.155	0.104	0.090	0.079
125	125	**0.067**	**0.059**	**0.047**	**0.043**	**0.026**	**0.124**	**0.065**	**0.055**	**0.050**	**0.023**	**0.357**	**0.162**	**0.120**	**0.086**	**0.038**
125	175	0.066	0.056	0.048	0.050	0.019	0.122	0.065	0.053	0.046	0.019	0.353	0.162	0.115	0.098	0.031
175	25	0.067	0.093	0.135	0.179	0.774	0.104	0.103	0.143	0.181	0.738	0.365	0.199	0.178	0.196	0.675
175	75	0.066	0.060	0.061	0.067	0.132	0.113	0.067	0.056	0.064	0.133	0.340	0.157	0.113	0.096	0.126
175	125	0.068	0.056	0.046	0.050	0.050	0.115	0.067	0.056	0.051	0.049	0.344	0.160	0.115	0.086	0.056
175	175	**0.073**	**0.048**	**0.057**	**0.046**	**0.030**	**0.127**	**0.067**	**0.057**	**0.046**	**0.027**	**0.342**	**0.159**	**0.116**	**0.089**	**0.038**

Table 12: Size, Unconditional-Rolling DGP, DM-M

		$h = 1$					$h = 3$					$h = 12$				
				P					P					P		
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.040**	**0.031**	**0.028**	**0.025**	**0.019**	**0.063**	**0.041**	**0.038**	**0.035**	**0.026**	**0.129**	**0.115**	**0.094**	**0.083**	**0.046**
25	75	0.053	0.054	0.042	0.046	0.404	0.093	0.058	0.056	0.062	0.393	0.157	0.148	0.136	0.133	0.397
25	125	0.060	0.074	0.086	0.092	0.669	0.110	0.094	0.102	0.111	0.653	0.167	0.176	0.170	0.175	0.609
25	175	0.063	0.093	0.118	0.136	0.782	0.105	0.110	0.136	0.151	0.759	0.160	0.197	0.211	0.207	0.737
75	25	0.045	0.070	0.095	0.112	0.464	0.056	0.068	0.085	0.109	0.422	0.122	0.124	0.106	0.124	0.375
75	75	**0.047**	**0.040**	**0.037**	**0.032**	**0.023**	**0.071**	**0.050**	**0.042**	**0.037**	**0.024**	**0.128**	**0.103**	**0.089**	**0.068**	**0.031**
75	125	0.052	0.043	0.039	0.035	0.024	0.081	0.055	0.051	0.039	0.028	0.143	0.117	0.087	0.070	0.045
75	175	0.050	0.047	0.046	0.044	0.055	0.081	0.063	0.048	0.047	0.060	0.139	0.131	0.101	0.087	0.078
125	25	0.052	0.083	0.125	0.155	0.693	0.062	0.084	0.110	0.155	0.652	0.121	0.126	0.129	0.150	0.562
125	75	0.042	0.048	0.049	0.048	0.073	0.071	0.051	0.051	0.052	0.072	0.130	0.104	0.077	0.071	0.074
125	125	**0.049**	**0.055**	**0.044**	**0.041**	**0.025**	**0.078**	**0.051**	**0.049**	**0.048**	**0.023**	**0.138**	**0.105**	**0.087**	**0.066**	**0.036**
125	175	0.049	0.050	0.046	0.047	0.018	0.080	0.053	0.047	0.040	0.019	0.129	0.110	0.084	0.082	0.028
175	25	0.048	0.087	0.127	0.175	0.772	0.058	0.084	0.131	0.169	0.735	0.127	0.136	0.131	0.157	0.662
175	75	0.051	0.057	0.058	0.064	0.131	0.067	0.053	0.049	0.060	0.132	0.120	0.100	0.086	0.075	0.122
175	125	0.051	0.050	0.044	0.048	0.050	0.071	0.052	0.050	0.047	0.048	0.124	0.101	0.087	0.069	0.053
175	175	**0.054**	**0.041**	**0.055**	**0.045**	**0.030**	**0.076**	**0.051**	**0.051**	**0.043**	**0.026**	**0.132**	**0.107**	**0.088**	**0.070**	**0.036**

Table 13: Size, Unconditional-Rolling DGP, DM-NW

		$h = 1$					$h = 3$					$h = 12$				
				P					P					P		
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.084**	**0.046**	**0.042**	**0.040**	**0.026**	**0.126**	**0.072**	**0.062**	**0.058**	**0.037**	**0.203**	**0.128**	**0.095**	**0.100**	**0.071**
25	75	0.090	0.072	0.058	0.060	0.418	0.159	0.102	0.093	0.097	0.457	0.242	0.168	0.140	0.141	0.480
25	125	0.099	0.097	0.106	0.110	0.678	0.184	0.144	0.146	0.161	0.707	0.246	0.198	0.193	0.203	0.720
25	175	0.103	0.119	0.140	0.154	0.782	0.177	0.169	0.183	0.211	0.807	0.239	0.222	0.233	0.250	0.821
75	25	0.099	0.114	0.138	0.157	0.518	0.129	0.121	0.139	0.162	0.491	0.195	0.166	0.156	0.188	0.477
75	75	**0.081**	**0.057**	**0.054**	**0.042**	**0.027**	**0.150**	**0.088**	**0.070**	**0.058**	**0.034**	**0.198**	**0.122**	**0.096**	**0.090**	**0.046**
75	125	0.087	0.058	0.051	0.043	0.028	0.144	0.094	0.079	0.065	0.041	0.210	0.127	0.101	0.090	0.068
75	175	0.091	0.063	0.055	0.052	0.059	0.147	0.098	0.081	0.072	0.081	0.207	0.143	0.114	0.107	0.109
125	25	0.103	0.130	0.177	0.214	0.735	0.131	0.143	0.171	0.215	0.716	0.199	0.163	0.198	0.231	0.663
125	75	0.083	0.070	0.067	0.065	0.085	0.137	0.090	0.079	0.084	0.093	0.201	0.132	0.100	0.103	0.125
125	125	**0.094**	**0.068**	**0.056**	**0.050**	**0.031**	**0.149**	**0.094**	**0.075**	**0.069**	**0.033**	**0.204**	**0.127**	**0.105**	**0.092**	**0.051**
125	175	0.094	0.067	0.058	0.057	0.023	0.149	0.095	0.077	0.067	0.027	0.209	0.132	0.109	0.097	0.047
175	25	0.108	0.136	0.190	0.224	0.806	0.132	0.146	0.198	0.246	0.795	0.203	0.179	0.200	0.242	0.750
175	75	0.090	0.082	0.075	0.082	0.146	0.140	0.102	0.082	0.091	0.160	0.204	0.135	0.115	0.114	0.186
175	125	0.089	0.068	0.056	0.065	0.053	0.136	0.093	0.080	0.075	0.063	0.191	0.131	0.106	0.093	0.078
175	175	**0.092**	**0.063**	**0.070**	**0.056**	**0.032**	**0.147**	**0.096**	**0.083**	**0.066**	**0.038**	**0.195**	**0.129**	**0.104**	**0.091**	**0.054**

Table 14: Size, Unconditional-Rolling DGP, DM-NW-L

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.133**	**0.094**	**0.079**	**0.079**	**0.056**	**0.155**	**0.096**	**0.087**	**0.082**	**0.061**	**0.211**	**0.124**	**0.094**	**0.094**	**0.062**
25	75	0.136	0.106	0.092	0.089	0.467	0.188	0.117	0.110	0.118	0.471	0.249	0.164	0.141	0.145	0.448
25	125	0.164	0.141	0.142	0.150	0.702	0.211	0.157	0.167	0.174	0.697	0.253	0.193	0.188	0.196	0.659
25	175	0.163	0.156	0.179	0.194	0.794	0.219	0.185	0.197	0.221	0.787	0.250	0.219	0.231	0.235	0.772
75	25	0.158	0.190	0.222	0.260	0.666	0.151	0.169	0.188	0.222	0.598	0.204	0.142	0.128	0.157	0.454
75	75	**0.134**	**0.093**	**0.084**	**0.073**	**0.047**	**0.180**	**0.109**	**0.088**	**0.077**	**0.052**	**0.202**	**0.111**	**0.087**	**0.070**	**0.044**
75	125	0.136	0.091	0.075	0.068	0.045	0.173	0.109	0.094	0.077	0.050	0.223	0.121	0.092	0.081	0.063
75	175	0.144	0.102	0.083	0.074	0.083	0.177	0.113	0.092	0.082	0.089	0.220	0.139	0.104	0.099	0.100
125	25	0.166	0.223	0.272	0.330	0.846	0.162	0.188	0.234	0.299	0.796	0.205	0.143	0.165	0.194	0.648
125	75	0.131	0.113	0.108	0.106	0.145	0.165	0.114	0.103	0.103	0.129	0.200	0.113	0.086	0.079	0.111
125	125	**0.146**	**0.106**	**0.085**	**0.080**	**0.049**	**0.172**	**0.112**	**0.093**	**0.083**	**0.046**	**0.212**	**0.116**	**0.092**	**0.076**	**0.047**
125	175	0.146	0.102	0.085	0.077	0.034	0.176	0.108	0.087	0.077	0.036	0.217	0.120	0.097	0.087	0.041
175	25	0.177	0.227	0.296	0.353	0.897	0.162	0.200	0.261	0.334	0.861	0.202	0.151	0.169	0.200	0.737
175	75	0.146	0.130	0.118	0.133	0.226	0.164	0.122	0.107	0.121	0.214	0.204	0.116	0.090	0.092	0.174
175	125	0.147	0.107	0.086	0.094	0.086	0.168	0.109	0.097	0.091	0.082	0.202	0.116	0.090	0.075	0.071
175	175	**0.142**	**0.103**	**0.097**	**0.081**	**0.050**	**0.181**	**0.108**	**0.095**	**0.080**	**0.048**	**0.206**	**0.120**	**0.092**	**0.078**	**0.047**

Table 15: Size, Unconditional-Rolling DGP, DM-FB

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.038**	**0.043**	**0.044**	**0.048**	**0.043**	**0.048**	**0.042**	**0.049**	**0.046**	**0.046**	**0.077**	**0.059**	**0.049**	**0.055**	**0.046**
25	75	0.042	0.045	0.044	0.046	0.413	0.074	0.053	0.057	0.066	0.410	0.117	0.084	0.078	0.088	0.394
25	125	0.056	0.068	0.076	0.091	0.648	0.093	0.085	0.092	0.106	0.638	0.122	0.118	0.119	0.124	0.600
25	175	0.056	0.080	0.105	0.124	0.742	0.094	0.102	0.126	0.140	0.735	0.121	0.135	0.151	0.160	0.723
75	25	0.048	0.105	0.147	0.188	0.625	0.045	0.080	0.111	0.151	0.557	0.068	0.064	0.068	0.096	0.404
75	75	**0.037**	**0.044**	**0.047**	**0.041**	**0.037**	**0.062**	**0.042**	**0.046**	**0.044**	**0.039**	**0.081**	**0.049**	**0.043**	**0.037**	**0.034**
75	125	0.043	0.034	0.038	0.037	0.033	0.066	0.047	0.046	0.044	0.037	0.098	0.058	0.047	0.041	0.047
75	175	0.043	0.040	0.040	0.040	0.063	0.071	0.058	0.047	0.048	0.065	0.096	0.072	0.059	0.054	0.077
125	25	0.051	0.119	0.192	0.252	0.817	0.049	0.093	0.146	0.212	0.767	0.064	0.067	0.089	0.118	0.604
125	75	0.038	0.053	0.059	0.062	0.121	0.053	0.049	0.059	0.063	0.110	0.077	0.051	0.043	0.042	0.090
125	125	**0.043**	**0.045**	**0.046**	**0.044**	**0.040**	**0.062**	**0.045**	**0.047**	**0.051**	**0.036**	**0.085**	**0.049**	**0.043**	**0.041**	**0.037**
125	175	0.040	0.043	0.045	0.044	0.026	0.066	0.047	0.046	0.046	0.026	0.093	0.063	0.050	0.052	0.029
175	25	0.050	0.125	0.201	0.266	0.876	0.044	0.098	0.170	0.237	0.833	0.062	0.070	0.091	0.125	0.696
175	75	0.043	0.063	0.063	0.086	0.194	0.053	0.050	0.057	0.075	0.188	0.078	0.051	0.046	0.045	0.145
175	125	0.041	0.044	0.043	0.058	0.070	0.057	0.042	0.048	0.052	0.067	0.075	0.050	0.043	0.040	0.054
175	175	**0.044**	**0.045**	**0.051**	**0.045**	**0.038**	**0.063**	**0.050**	**0.052**	**0.043**	**0.038**	**0.084**	**0.051**	**0.048**	**0.044**	**0.037**

Table 16: Size, Unconditional-Rolling DGP, DM-EWC

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.046**	**0.052**	**0.050**	**0.054**	**0.043**	**0.036**	**0.039**	**0.044**	**0.044**	**0.045**	**0.042**	**0.053**	**0.045**	**0.052**	**0.048**
25	75	0.048	0.052	0.049	0.051	0.410	0.050	0.048	0.053	0.061	0.400	0.068	0.069	0.071	0.080	0.379
25	125	0.056	0.072	0.081	0.094	0.651	0.063	0.076	0.088	0.099	0.634	0.080	0.097	0.106	0.116	0.591
25	175	0.055	0.083	0.110	0.129	0.751	0.068	0.090	0.118	0.133	0.729	0.074	0.114	0.139	0.152	0.719
75	25	0.054	0.111	0.147	0.194	0.625	0.032	0.070	0.100	0.136	0.540	0.036	0.052	0.055	0.082	0.386
75	75	**0.043**	**0.050**	**0.052**	**0.045**	**0.034**	**0.045**	**0.042**	**0.045**	**0.042**	**0.035**	**0.048**	**0.043**	**0.039**	**0.035**	**0.029**
75	125	0.042	0.040	0.044	0.043	0.035	0.048	0.043	0.042	0.044	0.036	0.064	0.051	0.045	0.036	0.044
75	175	0.044	0.046	0.045	0.043	0.063	0.047	0.057	0.046	0.047	0.066	0.062	0.063	0.054	0.053	0.072
125	25	0.052	0.128	0.192	0.249	0.816	0.040	0.079	0.132	0.200	0.751	0.036	0.052	0.073	0.103	0.578
125	75	0.041	0.063	0.067	0.067	0.105	0.037	0.045	0.056	0.059	0.089	0.046	0.042	0.038	0.040	0.074
125	125	**0.048**	**0.053**	**0.048**	**0.050**	**0.037**	**0.042**	**0.044**	**0.048**	**0.047**	**0.031**	**0.053**	**0.040**	**0.039**	**0.039**	**0.034**
125	175	0.044	0.050	0.048	0.052	0.028	0.048	0.044	0.042	0.044	0.024	0.060	0.053	0.049	0.047	0.027
175	25	0.060	0.131	0.200	0.274	0.876	0.035	0.085	0.152	0.217	0.823	0.036	0.055	0.074	0.106	0.677
175	75	0.047	0.071	0.067	0.088	0.172	0.042	0.050	0.058	0.073	0.160	0.048	0.043	0.042	0.043	0.120
175	125	0.047	0.050	0.048	0.062	0.063	0.042	0.041	0.048	0.051	0.060	0.046	0.043	0.041	0.037	0.046
175	175	**0.043**	**0.052**	**0.059**	**0.051**	**0.038**	**0.050**	**0.039**	**0.047**	**0.045**	**0.036**	**0.055**	**0.045**	**0.041**	**0.039**	**0.034**

Table 17: Size, Unconditional-Rolling DGP, DM-IM2

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.043**	**0.058**	**0.055**	**0.048**	**0.049**	**0.050**	**0.051**	**0.051**	**0.050**	**0.053**	**0.046**	**0.045**	**0.043**	**0.056**	**0.045**
25	75	0.048	0.049	0.050	0.053	0.121	0.049	0.051	0.047	0.059	0.114	0.058	0.050	0.057	0.058	0.110
25	125	0.054	0.049	0.054	0.067	0.140	0.053	0.049	0.055	0.063	0.150	0.058	0.057	0.055	0.063	0.137
25	175	0.055	0.059	0.067	0.067	0.153	0.057	0.059	0.061	0.066	0.154	0.059	0.067	0.063	0.070	0.146
75	25	0.044	0.079	0.087	0.095	0.162	0.047	0.063	0.077	0.080	0.149	0.049	0.049	0.060	0.053	0.105
75	75	**0.042**	**0.046**	**0.050**	**0.057**	**0.047**	**0.048**	**0.044**	**0.051**	**0.057**	**0.051**	**0.046**	**0.048**	**0.050**	**0.044**	**0.046**
75	125	0.047	0.043	0.048	0.053	0.051	0.047	0.048	0.043	0.048	0.052	0.049	0.043	0.045	0.043	0.055
75	175	0.045	0.041	0.046	0.044	0.053	0.046	0.050	0.047	0.050	0.056	0.051	0.048	0.046	0.042	0.067
125	25	0.053	0.082	0.101	0.116	0.215	0.049	0.067	0.082	0.095	0.192	0.047	0.046	0.060	0.063	0.138
125	75	0.044	0.057	0.061	0.059	0.072	0.047	0.053	0.059	0.062	0.077	0.044	0.046	0.042	0.053	0.062
125	125	**0.049**	**0.048**	**0.049**	**0.050**	**0.054**	**0.047**	**0.043**	**0.050**	**0.048**	**0.053**	**0.052**	**0.046**	**0.047**	**0.045**	**0.052**
125	175	0.051	0.049	0.046	0.044	0.047	0.051	0.045	0.046	0.041	0.048	0.048	0.044	0.043	0.045	0.048
175	25	0.054	0.089	0.107	0.120	0.237	0.040	0.075	0.082	0.097	0.222	0.047	0.058	0.059	0.060	0.148
175	75	0.048	0.056	0.060	0.070	0.097	0.044	0.050	0.060	0.067	0.092	0.051	0.044	0.042	0.052	0.081
175	125	0.047	0.049	0.049	0.055	0.071	0.045	0.057	0.047	0.048	0.065	0.049	0.046	0.050	0.048	0.057
175	175	**0.046**	**0.052**	**0.045**	**0.051**	**0.056**	**0.051**	**0.047**	**0.050**	**0.050**	**0.053**	**0.049**	**0.047**	**0.042**	**0.041**	**0.049**

Table 18: Size, Unconditional-Rolling DGP, DM-IM5

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.048**	**0.059**	**0.069**	**0.068**	**0.054**	**0.047**	**0.051**	**0.057**	**0.062**	**0.052**	**0.061**	**0.053**	**0.041**	**0.048**	**0.047**
25	75	0.046	0.056	0.050	0.061	0.272	0.064	0.050	0.058	0.064	0.269	0.097	0.072	0.061	0.074	0.261
25	125	0.053	0.063	0.076	0.081	0.427	0.073	0.070	0.073	0.090	0.429	0.105	0.099	0.094	0.101	0.405
25	175	0.060	0.071	0.096	0.101	0.515	0.084	0.083	0.099	0.110	0.491	0.096	0.105	0.115	0.121	0.465
75	25	0.058	0.116	0.171	0.226	0.510	0.042	0.089	0.125	0.174	0.440	0.054	0.055	0.061	0.076	0.278
75	75	**0.043**	**0.055**	**0.061**	**0.057**	**0.063**	**0.054**	**0.046**	**0.053**	**0.061**	**0.061**	**0.065**	**0.045**	**0.041**	**0.038**	**0.053**
75	125	0.045	0.044	0.047	0.050	0.047	0.054	0.043	0.042	0.045	0.049	0.083	0.046	0.039	0.039	0.051
75	175	0.044	0.042	0.046	0.045	0.071	0.064	0.047	0.046	0.052	0.066	0.072	0.057	0.053	0.051	0.072
125	25	0.060	0.134	0.210	0.291	0.702	0.043	0.097	0.152	0.217	0.621	0.055	0.054	0.077	0.090	0.409
125	75	0.044	0.061	0.079	0.085	0.164	0.044	0.047	0.063	0.080	0.146	0.059	0.040	0.041	0.046	0.107
125	125	**0.045**	**0.052**	**0.056**	**0.061**	**0.073**	**0.049**	**0.046**	**0.051**	**0.056**	**0.070**	**0.073**	**0.039**	**0.038**	**0.041**	**0.062**
125	175	0.044	0.049	0.046	0.048	0.049	0.057	0.047	0.046	0.047	0.049	0.075	0.050	0.042	0.043	0.051
175	25	0.071	0.143	0.230	0.296	0.767	0.039	0.106	0.167	0.249	0.708	0.055	0.061	0.067	0.090	0.483
175	75	0.051	0.073	0.077	0.101	0.244	0.050	0.054	0.072	0.087	0.226	0.065	0.042	0.046	0.048	0.161
175	125	0.048	0.051	0.054	0.069	0.124	0.046	0.047	0.052	0.062	0.113	0.063	0.038	0.035	0.041	0.096
175	175	**0.048**	**0.055**	**0.057**	**0.050**	**0.079**	**0.057**	**0.045**	**0.050**	**0.051**	**0.081**	**0.068**	**0.043**	**0.039**	**0.038**	**0.066**

Table 19: Size, Unconditional-Rolling DGP, DM-IM10

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.048**	**0.048**	**0.056**	**0.058**	**0.052**	**0.073**	**0.047**	**0.054**	**0.055**	**0.056**	**0.135**	**0.066**	**0.051**	**0.056**	**0.050**
25	75	0.052	0.058	0.052	0.057	0.379	0.097	0.058	0.063	0.070	0.365	0.173	0.087	0.079	0.094	0.348
25	125	0.055	0.069	0.082	0.092	0.585	0.124	0.089	0.095	0.107	0.562	0.176	0.118	0.116	0.124	0.531
25	175	0.057	0.083	0.109	0.122	0.670	0.123	0.103	0.121	0.136	0.647	0.166	0.135	0.152	0.153	0.631
75	25	0.054	0.110	0.161	0.204	0.607	0.070	0.087	0.118	0.161	0.540	0.127	0.080	0.074	0.091	0.365
75	75	**0.048**	**0.049**	**0.056**	**0.053**	**0.064**	**0.088**	**0.053**	**0.052**	**0.054**	**0.065**	**0.129**	**0.058**	**0.045**	**0.043**	**0.052**
75	125	0.048	0.048	0.048	0.047	0.045	0.092	0.055	0.054	0.047	0.049	0.150	0.065	0.048	0.043	0.052
75	175	0.045	0.047	0.051	0.047	0.075	0.091	0.066	0.055	0.056	0.078	0.147	0.077	0.062	0.055	0.088
125	25	0.059	0.129	0.202	0.264	0.795	0.076	0.096	0.142	0.222	0.737	0.130	0.083	0.093	0.119	0.543
125	75	0.046	0.063	0.071	0.076	0.177	0.084	0.057	0.066	0.070	0.158	0.134	0.061	0.048	0.047	0.120
125	125	**0.052**	**0.055**	**0.053**	**0.056**	**0.062**	**0.088**	**0.057**	**0.054**	**0.053**	**0.062**	**0.136**	**0.061**	**0.048**	**0.045**	**0.057**
125	175	0.048	0.052	0.052	0.050	0.043	0.086	0.055	0.052	0.050	0.046	0.137	0.069	0.055	0.051	0.041
175	25	0.064	0.137	0.212	0.286	0.854	0.073	0.097	0.168	0.247	0.807	0.132	0.087	0.097	0.118	0.626
175	75	0.053	0.074	0.074	0.101	0.268	0.080	0.058	0.067	0.086	0.246	0.133	0.061	0.053	0.052	0.187
175	125	0.046	0.055	0.055	0.067	0.111	0.080	0.051	0.052	0.061	0.101	0.124	0.061	0.050	0.038	0.079
175	175	**0.053**	**0.057**	**0.064**	**0.056**	**0.066**	**0.091**	**0.052**	**0.054**	**0.053**	**0.063**	**0.131**	**0.064**	**0.050**	**0.043**	**0.054**

UCR Size-Corrected Power Tables

Table 20: Size-Adjusted Power, Unconditional-Rolling DGP, DM-R

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
25	75	0.062	0.087	0.077	0.098	0.585	0.078	0.070	0.076	0.087	0.525	0.066	0.065	0.073	0.083	0.416
25	125	0.069	0.114	0.140	0.163	0.818	0.095	0.109	0.123	0.144	0.767	0.069	0.076	0.098	0.107	0.627
25	175	0.074	0.138	0.176	0.216	0.891	0.090	0.126	0.162	0.190	0.855	0.064	0.093	0.121	0.139	0.749
75	25	0.048	0.087	0.119	0.160	0.613	0.035	0.069	0.101	0.135	0.550	0.046	0.066	0.065	0.092	0.460
75	75	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
75	125	0.054	0.055	0.055	0.055	0.072	0.059	0.056	0.060	0.054	0.061	0.060	0.064	0.055	0.051	0.077
75	175	0.052	0.062	0.059	0.067	0.130	0.058	0.064	0.060	0.063	0.118	0.058	0.073	0.067	0.067	0.126
125	25	0.054	0.073	0.138	0.186	0.793	0.037	0.083	0.112	0.166	0.762	0.038	0.064	0.075	0.118	0.636
125	75	0.042	0.043	0.055	0.061	0.125	0.043	0.051	0.053	0.056	0.120	0.039	0.050	0.045	0.052	0.103
125	125	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
125	175	0.051	0.045	0.051	0.058	0.044	0.054	0.052	0.047	0.046	0.043	0.047	0.057	0.052	0.065	0.046
175	25	0.045	0.098	0.115	0.196	0.849	0.033	0.081	0.129	0.196	0.820	0.049	0.066	0.077	0.110	0.722
175	75	0.048	0.063	0.053	0.077	0.192	0.039	0.050	0.048	0.073	0.185	0.051	0.047	0.053	0.052	0.158
175	125	0.047	0.059	0.039	0.056	0.081	0.043	0.050	0.049	0.059	0.078	0.045	0.049	0.056	0.046	0.075
175	175	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**

Table 21: Size-Adjusted Power, Unconditional-Rolling DGP, DM-M

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
25	75	0.062	0.087	0.077	0.098	0.585	0.078	0.070	0.076	0.087	0.525	0.066	0.065	0.073	0.083	0.416
25	125	0.069	0.114	0.140	0.163	0.818	0.095	0.109	0.123	0.144	0.767	0.069	0.076	0.098	0.107	0.627
25	175	0.074	0.138	0.176	0.216	0.891	0.090	0.126	0.162	0.190	0.855	0.064	0.093	0.121	0.139	0.749
75	25	0.048	0.087	0.119	0.160	0.613	0.035	0.069	0.101	0.135	0.550	0.046	0.066	0.065	0.092	0.460
75	75	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
75	125	0.054	0.055	0.055	0.055	0.072	0.059	0.056	0.060	0.054	0.061	0.060	0.064	0.055	0.051	0.077
75	175	0.052	0.062	0.059	0.067	0.130	0.058	0.064	0.060	0.063	0.118	0.058	0.073	0.067	0.067	0.126
125	25	0.054	0.073	0.138	0.186	0.793	0.037	0.083	0.112	0.166	0.762	0.038	0.064	0.075	0.118	0.636
125	75	0.042	0.043	0.055	0.061	0.125	0.043	0.051	0.053	0.056	0.120	0.039	0.050	0.045	0.052	0.103
125	125	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
125	175	0.051	0.045	0.051	0.058	0.044	0.054	0.052	0.047	0.046	0.043	0.047	0.057	0.052	0.065	0.046
175	25	0.045	0.098	0.115	0.196	0.849	0.033	0.081	0.129	0.196	0.820	0.049	0.066	0.077	0.110	0.722
175	75	0.048	0.063	0.053	0.077	0.192	0.039	0.050	0.048	0.073	0.185	0.051	0.047	0.053	0.052	0.158
175	125	0.047	0.059	0.039	0.056	0.081	0.043	0.050	0.049	0.059	0.078	0.045	0.049	0.056	0.046	0.075
175	175	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**

Table 22: Size-Adjusted Power, Unconditional-Rolling DGP, DM-NW

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
25	75	0.055	0.076	0.074	0.077	0.559	0.078	0.070	0.072	0.086	0.520	0.085	0.067	0.082	0.077	0.417
25	125	0.065	0.101	0.125	0.131	0.800	0.097	0.109	0.122	0.141	0.762	0.093	0.099	0.118	0.120	0.647
25	175	0.069	0.124	0.160	0.180	0.875	0.094	0.127	0.158	0.190	0.853	0.085	0.115	0.156	0.161	0.771
75	25	0.062	0.104	0.131	0.180	0.629	0.038	0.069	0.103	0.143	0.553	0.041	0.072	0.087	0.132	0.486
75	75	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
75	125	0.056	0.051	0.047	0.054	0.067	0.063	0.053	0.057	0.055	0.060	0.066	0.054	0.053	0.053	0.074
75	175	0.055	0.057	0.052	0.062	0.126	0.062	0.063	0.060	0.063	0.113	0.061	0.065	0.060	0.066	0.115
125	25	0.057	0.098	0.161	0.213	0.804	0.030	0.087	0.117	0.173	0.765	0.035	0.077	0.114	0.156	0.662
125	75	0.042	0.051	0.059	0.065	0.125	0.040	0.052	0.056	0.057	0.121	0.042	0.053	0.050	0.055	0.124
125	125	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
125	175	0.048	0.048	0.051	0.057	0.041	0.049	0.053	0.050	0.046	0.041	0.055	0.056	0.053	0.054	0.047
175	25	0.055	0.111	0.136	0.207	0.865	0.031	0.081	0.135	0.198	0.826	0.036	0.078	0.119	0.143	0.736
175	75	0.049	0.068	0.049	0.075	0.198	0.041	0.049	0.049	0.072	0.188	0.046	0.051	0.054	0.055	0.173
175	125	0.042	0.053	0.037	0.056	0.081	0.042	0.050	0.050	0.056	0.080	0.042	0.052	0.054	0.043	0.072
175	175	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**

Table 23: Size-Adjusted Power, Unconditional-Rolling DGP, DM-NW-L

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
25	75	0.053	0.052	0.055	0.049	0.438	0.077	0.059	0.058	0.072	0.428	0.088	0.065	0.079	0.083	0.408
25	125	0.067	0.079	0.093	0.096	0.678	0.097	0.096	0.093	0.114	0.654	0.094	0.098	0.122	0.120	0.618
25	175	0.069	0.091	0.124	0.130	0.775	0.098	0.114	0.128	0.150	0.754	0.088	0.114	0.156	0.154	0.737
75	25	0.065	0.117	0.154	0.210	0.672	0.036	0.092	0.121	0.169	0.592	0.037	0.065	0.079	0.123	0.476
75	75	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
75	125	0.054	0.041	0.041	0.047	0.049	0.056	0.055	0.052	0.051	0.049	0.066	0.059	0.055	0.057	0.071
75	175	0.055	0.048	0.044	0.052	0.090	0.061	0.065	0.052	0.057	0.086	0.062	0.072	0.068	0.073	0.112
125	25	0.057	0.131	0.205	0.265	0.851	0.040	0.101	0.155	0.212	0.805	0.034	0.069	0.102	0.144	0.658
125	75	0.042	0.057	0.068	0.070	0.149	0.043	0.054	0.063	0.063	0.136	0.043	0.052	0.052	0.055	0.118
125	125	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
125	175	0.045	0.049	0.050	0.050	0.038	0.055	0.053	0.049	0.046	0.040	0.061	0.064	0.059	0.062	0.045
175	25	0.060	0.133	0.197	0.275	0.896	0.031	0.098	0.167	0.259	0.865	0.029	0.069	0.097	0.138	0.746
175	75	0.051	0.068	0.062	0.092	0.224	0.039	0.049	0.056	0.083	0.220	0.043	0.049	0.051	0.051	0.183
175	125	0.047	0.047	0.042	0.062	0.086	0.045	0.042	0.046	0.059	0.087	0.045	0.049	0.048	0.045	0.074
175	175	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**

Table 24: Size-Adjusted Power, Unconditional-Rolling DGP, DM-FB

		$h = 1$					$h = 3$					$h = 12$				
				P					P					P		
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
25	75	0.053	0.052	0.055	0.049	0.438	0.077	0.059	0.058	0.072	0.428	0.088	0.065	0.079	0.083	0.408
25	125	0.067	0.079	0.093	0.096	0.678	0.097	0.096	0.093	0.114	0.654	0.094	0.098	0.122	0.120	0.618
25	175	0.069	0.091	0.124	0.130	0.775	0.098	0.114	0.128	0.150	0.754	0.088	0.114	0.156	0.154	0.737
75	25	0.065	0.117	0.154	0.210	0.672	0.036	0.092	0.121	0.169	0.592	0.037	0.065	0.079	0.123	0.476
75	75	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
75	125	0.054	0.041	0.041	0.047	0.049	0.056	0.055	0.052	0.051	0.049	0.066	0.059	0.055	0.057	0.071
75	175	0.055	0.048	0.044	0.052	0.090	0.061	0.065	0.052	0.057	0.086	0.062	0.072	0.068	0.073	0.112
125	25	0.057	0.131	0.205	0.265	0.851	0.040	0.101	0.155	0.212	0.805	0.034	0.069	0.102	0.144	0.658
125	75	0.042	0.057	0.068	0.070	0.149	0.043	0.054	0.063	0.063	0.136	0.043	0.052	0.052	0.055	0.118
125	125	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
125	175	0.045	0.049	0.050	0.050	0.038	0.055	0.053	0.049	0.046	0.040	0.061	0.064	0.059	0.062	0.045
175	25	0.060	0.133	0.197	0.275	0.896	0.031	0.098	0.167	0.259	0.865	0.029	0.069	0.097	0.138	0.746
175	75	0.051	0.068	0.062	0.092	0.224	0.039	0.049	0.056	0.083	0.220	0.043	0.049	0.051	0.051	0.183
175	125	0.047	0.047	0.042	0.062	0.086	0.045	0.042	0.046	0.059	0.087	0.045	0.049	0.048	0.045	0.074
175	175	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**

Table 25: Size-Adjusted Power, Unconditional-Rolling DGP, DM-EWC

		$h = 1$					$h = 3$					$h = 12$				
				P					P					P		
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
25	75	0.051	0.046	0.049	0.047	0.432	0.068	0.059	0.062	0.071	0.425	0.079	0.064	0.083	0.078	0.384
25	125	0.060	0.067	0.082	0.087	0.676	0.080	0.099	0.097	0.109	0.659	0.089	0.091	0.120	0.112	0.596
25	175	0.060	0.076	0.110	0.120	0.772	0.086	0.110	0.128	0.147	0.753	0.083	0.107	0.157	0.146	0.725
75	25	0.061	0.112	0.144	0.205	0.683	0.034	0.091	0.109	0.151	0.596	0.038	0.061	0.067	0.116	0.488
75	75	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
75	125	0.051	0.041	0.042	0.048	0.055	0.052	0.054	0.050	0.051	0.053	0.067	0.058	0.056	0.059	0.079
75	175	0.050	0.047	0.044	0.051	0.102	0.052	0.068	0.052	0.055	0.095	0.065	0.069	0.065	0.078	0.130
125	25	0.054	0.124	0.196	0.248	0.853	0.048	0.088	0.136	0.210	0.807	0.033	0.064	0.089	0.134	0.656
125	75	0.042	0.061	0.069	0.067	0.141	0.047	0.052	0.059	0.062	0.128	0.045	0.054	0.046	0.053	0.108
125	125	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
125	175	0.046	0.047	0.049	0.052	0.043	0.057	0.051	0.045	0.048	0.042	0.056	0.064	0.056	0.060	0.046
175	25	0.065	0.128	0.181	0.270	0.900	0.035	0.099	0.159	0.232	0.866	0.032	0.060	0.087	0.129	0.745
175	75	0.053	0.069	0.057	0.087	0.211	0.042	0.059	0.062	0.078	0.203	0.046	0.048	0.048	0.055	0.168
175	125	0.051	0.049	0.043	0.061	0.082	0.042	0.049	0.052	0.056	0.080	0.043	0.048	0.051	0.045	0.074
175	175	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**

Table 26: Size-Adjusted Power, Unconditional-Rolling DGP, DM-IM2

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
25	75	0.057	0.042	0.044	0.055	0.125	0.049	0.050	0.047	0.058	0.110	0.062	0.054	0.062	0.051	0.123
25	125	0.063	0.040	0.049	0.069	0.142	0.053	0.048	0.054	0.063	0.143	0.062	0.060	0.066	0.057	0.152
25	175	0.063	0.051	0.059	0.068	0.158	0.056	0.058	0.060	0.066	0.148	0.063	0.071	0.074	0.062	0.161
75	25	0.051	0.085	0.087	0.087	0.172	0.049	0.071	0.076	0.070	0.147	0.054	0.051	0.060	0.061	0.115
75	75	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
75	125	0.056	0.048	0.049	0.050	0.056	0.049	0.054	0.042	0.044	0.051	0.056	0.045	0.045	0.049	0.058
75	175	0.052	0.044	0.046	0.041	0.057	0.048	0.054	0.047	0.044	0.055	0.055	0.048	0.046	0.048	0.074
125	25	0.055	0.085	0.103	0.113	0.199	0.051	0.079	0.083	0.097	0.185	0.044	0.050	0.064	0.069	0.135
125	75	0.045	0.058	0.062	0.058	0.067	0.052	0.064	0.061	0.063	0.074	0.042	0.051	0.047	0.058	0.060
125	125	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
125	175	0.052	0.051	0.046	0.043	0.044	0.055	0.051	0.047	0.042	0.046	0.046	0.049	0.046	0.049	0.047
175	25	0.062	0.085	0.122	0.116	0.211	0.040	0.080	0.083	0.097	0.208	0.047	0.062	0.074	0.073	0.150
175	75	0.054	0.054	0.070	0.068	0.087	0.044	0.054	0.060	0.067	0.087	0.051	0.048	0.052	0.063	0.082
175	125	0.053	0.047	0.057	0.053	0.064	0.044	0.062	0.048	0.048	0.063	0.049	0.050	0.060	0.057	0.058
175	175	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**

Table 27: Size-Adjusted Power, Unconditional-Rolling DGP, DM-IM5

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
25	75	0.047	0.047	0.034	0.043	0.250	0.067	0.050	0.052	0.049	0.260	0.084	0.063	0.075	0.080	0.273
25	125	0.055	0.050	0.054	0.056	0.402	0.079	0.069	0.066	0.074	0.415	0.094	0.091	0.109	0.108	0.422
25	175	0.062	0.062	0.074	0.073	0.487	0.090	0.083	0.089	0.089	0.477	0.083	0.098	0.132	0.129	0.484
75	25	0.065	0.108	0.152	0.210	0.439	0.039	0.097	0.117	0.148	0.387	0.032	0.060	0.073	0.094	0.267
75	75	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
75	125	0.053	0.040	0.038	0.041	0.032	0.052	0.049	0.040	0.036	0.038	0.065	0.052	0.046	0.046	0.047
75	175	0.053	0.039	0.037	0.038	0.047	0.060	0.051	0.044	0.042	0.053	0.055	0.062	0.061	0.062	0.067
125	25	0.066	0.132	0.192	0.259	0.607	0.043	0.104	0.149	0.196	0.540	0.031	0.069	0.095	0.108	0.353
125	75	0.052	0.060	0.069	0.070	0.119	0.044	0.051	0.061	0.072	0.111	0.037	0.052	0.051	0.055	0.086
125	125	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
125	175	0.051	0.048	0.041	0.042	0.035	0.058	0.051	0.045	0.042	0.034	0.052	0.063	0.054	0.052	0.038
175	25	0.074	0.133	0.216	0.296	0.657	0.035	0.118	0.168	0.245	0.574	0.033	0.069	0.090	0.116	0.398
175	75	0.054	0.065	0.072	0.101	0.167	0.045	0.062	0.072	0.085	0.160	0.046	0.048	0.057	0.064	0.127
175	125	0.049	0.045	0.050	0.069	0.086	0.043	0.053	0.053	0.060	0.075	0.045	0.046	0.048	0.053	0.072
175	175	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**

Table 28: Size-Adjusted Power, Unconditional-Rolling DGP, DM-IM10

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
25	75	0.054	0.062	0.046	0.047	0.365	0.072	0.062	0.060	0.063	0.340	0.079	0.069	0.077	0.087	0.351
25	125	0.059	0.075	0.075	0.081	0.569	0.092	0.094	0.089	0.101	0.538	0.085	0.095	0.114	0.112	0.533
25	175	0.060	0.087	0.099	0.104	0.657	0.090	0.110	0.116	0.125	0.621	0.078	0.109	0.150	0.144	0.633
75	25	0.057	0.111	0.152	0.197	0.547	0.036	0.085	0.116	0.153	0.488	0.042	0.071	0.080	0.101	0.355
75	75	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
75	125	0.050	0.049	0.043	0.043	0.033	0.059	0.050	0.053	0.043	0.038	0.062	0.059	0.053	0.049	0.050
75	175	0.048	0.048	0.045	0.045	0.052	0.057	0.060	0.054	0.052	0.055	0.062	0.071	0.068	0.059	0.084
125	25	0.056	0.123	0.200	0.247	0.751	0.035	0.085	0.132	0.218	0.693	0.039	0.065	0.098	0.131	0.511
125	75	0.044	0.058	0.068	0.067	0.150	0.043	0.049	0.061	0.067	0.136	0.043	0.048	0.052	0.054	0.108
125	125	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
125	175	0.047	0.049	0.051	0.045	0.029	0.047	0.048	0.046	0.048	0.033	0.058	0.053	0.058	0.057	0.035
175	25	0.059	0.124	0.180	0.275	0.828	0.036	0.092	0.160	0.235	0.762	0.037	0.073	0.097	0.133	0.614
175	75	0.049	0.065	0.056	0.094	0.235	0.045	0.053	0.062	0.081	0.205	0.042	0.051	0.052	0.060	0.180
175	125	0.042	0.047	0.043	0.060	0.097	0.046	0.047	0.048	0.056	0.082	0.042	0.050	0.050	0.046	0.076
175	175	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**

CR Size Tables

Table 29: Size, Conditional-Rolling DGP, DM-R

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.061**	**0.054**	**0.046**	**0.051**	**0.051**	**0.111**	**0.061**	**0.054**	**0.054**	**0.053**	**0.339**	**0.148**	**0.111**	**0.099**	**0.057**
25	75	0.111	0.097	0.086	0.081	0.075	0.168	0.105	0.084	0.075	0.058	0.366	0.190	0.137	0.113	0.059
25	125	0.132	0.159	0.129	0.115	0.107	0.213	0.159	0.129	0.113	0.093	0.382	0.238	0.159	0.146	0.079
25	175	0.153	0.182	0.167	0.143	0.119	0.218	0.200	0.167	0.139	0.108	0.401	0.281	0.220	0.157	0.097
75	25	0.070	0.092	0.123	0.144	0.503	0.114	0.103	0.124	0.151	0.481	0.331	0.201	0.184	0.181	0.427
75	75	**0.074**	**0.054**	**0.054**	**0.048**	**0.049**	**0.114**	**0.072**	**0.058**	**0.059**	**0.053**	**0.344**	**0.161**	**0.120**	**0.087**	**0.056**
75	125	0.073	0.077	0.067	0.063	0.054	0.131	0.081	0.068	0.065	0.048	0.342	0.183	0.131	0.106	0.057
75	175	0.093	0.095	0.084	0.080	0.064	0.141	0.104	0.097	0.085	0.053	0.355	0.195	0.150	0.127	0.056
125	25	0.067	0.101	0.135	0.179	0.682	0.110	0.105	0.147	0.169	0.651	0.347	0.197	0.195	0.211	0.587
125	75	0.062	0.061	0.074	0.077	0.130	0.122	0.065	0.073	0.084	0.129	0.347	0.148	0.135	0.113	0.120
125	125	**0.071**	**0.055**	**0.052**	**0.050**	**0.043**	**0.126**	**0.066**	**0.065**	**0.059**	**0.052**	**0.333**	**0.156**	**0.111**	**0.099**	**0.056**
125	175	0.072	0.067	0.071	0.058	0.056	0.131	0.082	0.072	0.060	0.052	0.346	0.172	0.120	0.108	0.057
175	25	0.074	0.105	0.151	0.196	0.763	0.105	0.107	0.150	0.202	0.739	0.359	0.197	0.195	0.202	0.671
175	75	0.069	0.062	0.071	0.076	0.198	0.124	0.070	0.074	0.082	0.194	0.332	0.156	0.125	0.117	0.182
175	125	0.066	0.067	0.066	0.065	0.086	0.121	0.071	0.068	0.066	0.093	0.326	0.156	0.116	0.101	0.091
175	175	**0.071**	**0.058**	**0.057**	**0.057**	**0.052**	**0.122**	**0.071**	**0.062**	**0.058**	**0.051**	**0.342**	**0.157**	**0.119**	**0.099**	**0.052**

Table 30: Size, Conditional-Rolling DGP, DM-M

		$h=1$					$h=3$					$h=12$				
				P					P					P		
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.044**	**0.048**	**0.042**	**0.050**	**0.051**	**0.063**	**0.049**	**0.047**	**0.049**	**0.053**	**0.117**	**0.097**	**0.083**	**0.078**	**0.055**
25	75	0.087	0.089	0.083	0.077	0.075	0.109	0.087	0.076	0.068	0.057	0.137	0.128	0.105	0.085	0.055
25	125	0.106	0.149	0.124	0.112	0.106	0.145	0.137	0.117	0.105	0.091	0.153	0.158	0.121	0.117	0.076
25	175	0.125	0.171	0.161	0.140	0.118	0.156	0.174	0.154	0.129	0.107	0.167	0.203	0.173	0.129	0.094
75	25	0.049	0.084	0.115	0.140	0.502	0.066	0.084	0.111	0.140	0.479	0.117	0.135	0.140	0.146	0.419
75	75	**0.054**	**0.047**	**0.050**	**0.046**	**0.049**	**0.068**	**0.057**	**0.049**	**0.054**	**0.052**	**0.123**	**0.107**	**0.087**	**0.069**	**0.054**
75	125	0.054	0.070	0.063	0.061	0.053	0.082	0.062	0.059	0.058	0.047	0.129	0.120	0.096	0.083	0.055
75	175	0.069	0.088	0.080	0.077	0.064	0.094	0.086	0.086	0.079	0.052	0.130	0.127	0.117	0.101	0.054
125	25	0.047	0.093	0.127	0.174	0.681	0.068	0.089	0.132	0.156	0.649	0.122	0.130	0.144	0.162	0.580
125	75	0.045	0.055	0.069	0.074	0.130	0.073	0.050	0.065	0.078	0.127	0.127	0.095	0.100	0.088	0.114
125	125	**0.053**	**0.049**	**0.050**	**0.046**	**0.042**	**0.077**	**0.052**	**0.058**	**0.052**	**0.051**	**0.125**	**0.104**	**0.081**	**0.077**	**0.053**
125	175	0.055	0.061	0.067	0.054	0.055	0.083	0.068	0.063	0.054	0.051	0.140	0.113	0.094	0.086	0.053
175	25	0.055	0.097	0.144	0.188	0.763	0.057	0.089	0.136	0.188	0.737	0.117	0.131	0.145	0.160	0.660
175	75	0.047	0.057	0.067	0.072	0.198	0.074	0.057	0.066	0.075	0.192	0.114	0.098	0.092	0.093	0.178
175	125	0.050	0.061	0.061	0.063	0.085	0.073	0.055	0.060	0.061	0.092	0.117	0.102	0.088	0.082	0.088
175	175	**0.053**	**0.053**	**0.054**	**0.056**	**0.051**	**0.076**	**0.058**	**0.054**	**0.053**	**0.050**	**0.124**	**0.106**	**0.089**	**0.074**	**0.049**

Table 31: Size, Conditional-Rolling DGP, DM-NW

		$h=1$					$h=3$					$h=12$				
				P					P					P		
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.092**	**0.073**	**0.064**	**0.066**	**0.056**	**0.131**	**0.087**	**0.079**	**0.079**	**0.069**	**0.170**	**0.101**	**0.090**	**0.086**	**0.073**
25	75	0.134	0.109	0.093	0.081	0.064	0.198	0.141	0.111	0.104	0.071	0.220	0.145	0.119	0.110	0.090
25	125	0.160	0.163	0.128	0.115	0.088	0.243	0.206	0.162	0.144	0.103	0.233	0.207	0.164	0.149	0.120
25	175	0.183	0.188	0.165	0.137	0.099	0.251	0.246	0.201	0.174	0.122	0.249	0.247	0.220	0.181	0.149
75	25	0.103	0.130	0.161	0.185	0.538	0.136	0.143	0.171	0.197	0.539	0.180	0.158	0.176	0.204	0.496
75	75	**0.096**	**0.068**	**0.069**	**0.061**	**0.055**	**0.138**	**0.099**	**0.081**	**0.080**	**0.068**	**0.184**	**0.117**	**0.097**	**0.084**	**0.076**
75	125	0.096	0.088	0.078	0.076	0.052	0.158	0.108	0.093	0.090	0.063	0.194	0.140	0.108	0.109	0.079
75	175	0.117	0.111	0.096	0.088	0.059	0.166	0.146	0.129	0.115	0.069	0.200	0.164	0.142	0.128	0.082
125	25	0.101	0.144	0.187	0.229	0.716	0.129	0.147	0.195	0.227	0.707	0.198	0.172	0.206	0.238	0.668
125	75	0.092	0.083	0.092	0.091	0.137	0.144	0.099	0.105	0.110	0.153	0.185	0.122	0.120	0.124	0.165
125	125	**0.093**	**0.070**	**0.066**	**0.062**	**0.051**	**0.150**	**0.096**	**0.089**	**0.082**	**0.068**	**0.178**	**0.123**	**0.093**	**0.095**	**0.075**
125	175	0.092	0.082	0.079	0.072	0.056	0.154	0.116	0.099	0.089	0.065	0.202	0.135	0.113	0.104	0.081
175	25	0.109	0.142	0.194	0.247	0.795	0.130	0.153	0.202	0.267	0.780	0.198	0.180	0.214	0.249	0.741
175	75	0.097	0.084	0.087	0.093	0.214	0.150	0.100	0.105	0.113	0.232	0.189	0.127	0.120	0.131	0.235
175	125	0.097	0.088	0.084	0.075	0.093	0.146	0.101	0.094	0.086	0.119	0.191	0.128	0.103	0.106	0.117
175	175	**0.093**	**0.070**	**0.072**	**0.064**	**0.058**	**0.150**	**0.103**	**0.089**	**0.083**	**0.067**	**0.188**	**0.124**	**0.103**	**0.099**	**0.070**

Table 32: Size, Conditional-Rolling DGP, DM-NW-L

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.149**	**0.120**	**0.110**	**0.112**	**0.089**	**0.160**	**0.119**	**0.110**	**0.107**	**0.089**	**0.177**	**0.098**	**0.087**	**0.079**	**0.066**
25	75	0.196	0.137	0.110	0.091	0.052	0.226	0.146	0.118	0.098	0.048	0.227	0.137	0.103	0.095	0.056
25	125	0.221	0.189	0.133	0.114	0.049	0.270	0.203	0.147	0.126	0.049	0.239	0.191	0.137	0.130	0.059
25	175	0.240	0.211	0.162	0.133	0.045	0.275	0.236	0.183	0.140	0.050	0.258	0.236	0.197	0.146	0.072
75	25	0.166	0.213	0.248	0.299	0.646	0.169	0.194	0.223	0.273	0.617	0.176	0.141	0.156	0.176	0.483
75	75	**0.151**	**0.117**	**0.104**	**0.103**	**0.079**	**0.165**	**0.120**	**0.109**	**0.101**	**0.084**	**0.197**	**0.110**	**0.093**	**0.074**	**0.072**
75	125	0.146	0.129	0.110	0.097	0.068	0.180	0.131	0.115	0.100	0.060	0.205	0.131	0.097	0.093	0.065
75	175	0.168	0.152	0.127	0.115	0.063	0.192	0.160	0.139	0.117	0.059	0.212	0.146	0.120	0.113	0.062
125	25	0.168	0.233	0.300	0.346	0.809	0.157	0.207	0.268	0.310	0.778	0.199	0.148	0.179	0.209	0.654
125	75	0.150	0.129	0.134	0.139	0.211	0.172	0.123	0.125	0.137	0.194	0.194	0.103	0.107	0.101	0.159
125	125	**0.138**	**0.109**	**0.102**	**0.102**	**0.077**	**0.178**	**0.113**	**0.105**	**0.103**	**0.079**	**0.189**	**0.114**	**0.083**	**0.084**	**0.066**
125	175	0.148	0.124	0.114	0.097	0.076	0.184	0.132	0.111	0.100	0.073	0.202	0.122	0.098	0.092	0.067
175	25	0.175	0.246	0.304	0.381	0.875	0.160	0.207	0.270	0.350	0.841	0.201	0.154	0.178	0.213	0.732
175	75	0.151	0.128	0.134	0.154	0.296	0.182	0.122	0.132	0.146	0.290	0.195	0.108	0.102	0.106	0.234
175	125	0.144	0.129	0.118	0.123	0.133	0.174	0.119	0.113	0.109	0.143	0.199	0.111	0.088	0.090	0.113
175	175	**0.148**	**0.106**	**0.101**	**0.100**	**0.082**	**0.182**	**0.123**	**0.103**	**0.095**	**0.076**	**0.204**	**0.117**	**0.095**	**0.087**	**0.069**

Table 33: Size, Conditional-Rolling DGP, DM-FB

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.042**	**0.061**	**0.065**	**0.073**	**0.075**	**0.045**	**0.051**	**0.057**	**0.063**	**0.075**	**0.064**	**0.043**	**0.044**	**0.039**	**0.053**
25	75	0.067	0.063	0.056	0.054	0.042	0.089	0.069	0.062	0.055	0.037	0.095	0.066	0.054	0.052	0.040
25	125	0.084	0.095	0.077	0.068	0.038	0.123	0.103	0.082	0.074	0.034	0.106	0.095	0.076	0.074	0.047
25	175	0.102	0.111	0.091	0.079	0.035	0.130	0.136	0.101	0.083	0.038	0.118	0.138	0.121	0.089	0.054
75	25	0.053	0.114	0.174	0.218	0.615	0.050	0.096	0.145	0.196	0.584	0.061	0.068	0.087	0.112	0.440
75	75	**0.043**	**0.054**	**0.061**	**0.065**	**0.066**	**0.053**	**0.049**	**0.054**	**0.061**	**0.068**	**0.072**	**0.050**	**0.044**	**0.040**	**0.055**
75	125	0.043	0.054	0.057	0.056	0.055	0.069	0.058	0.061	0.060	0.048	0.083	0.060	0.051	0.048	0.049
75	175	0.055	0.073	0.065	0.065	0.049	0.075	0.077	0.080	0.064	0.045	0.090	0.070	0.069	0.061	0.045
125	25	0.053	0.133	0.198	0.263	0.785	0.052	0.100	0.169	0.218	0.748	0.072	0.073	0.094	0.128	0.610
125	75	0.044	0.063	0.078	0.092	0.185	0.055	0.048	0.068	0.084	0.169	0.075	0.042	0.053	0.058	0.132
125	125	**0.038**	**0.048**	**0.056**	**0.061**	**0.065**	**0.066**	**0.050**	**0.058**	**0.057**	**0.065**	**0.074**	**0.049**	**0.039**	**0.048**	**0.053**
125	175	0.044	0.051	0.057	0.053	0.061	0.070	0.059	0.056	0.056	0.056	0.088	0.055	0.050	0.053	0.050
175	25	0.057	0.133	0.218	0.290	0.855	0.041	0.102	0.176	0.253	0.821	0.060	0.072	0.096	0.130	0.695
175	75	0.046	0.062	0.078	0.097	0.264	0.058	0.057	0.076	0.085	0.258	0.077	0.046	0.053	0.062	0.202
175	125	0.045	0.060	0.069	0.077	0.114	0.057	0.051	0.060	0.066	0.121	0.082	0.053	0.041	0.044	0.094
175	175	**0.043**	**0.049**	**0.055**	**0.055**	**0.068**	**0.064**	**0.052**	**0.056**	**0.054**	**0.061**	**0.084**	**0.049**	**0.047**	**0.049**	**0.052**

Table 34: Size, Conditional-Rolling DGP, DM-EWC

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.053**	**0.066**	**0.071**	**0.078**	**0.071**	**0.036**	**0.047**	**0.055**	**0.060**	**0.073**	**0.041**	**0.039**	**0.041**	**0.038**	**0.051**
25	75	0.063	0.066	0.062	0.059	0.034	0.061	0.064	0.063	0.055	0.033	0.056	0.057	0.049	0.053	0.045
25	125	0.070	0.100	0.086	0.078	0.041	0.081	0.095	0.081	0.080	0.039	0.065	0.088	0.075	0.070	0.060
25	175	0.080	0.111	0.098	0.090	0.041	0.080	0.123	0.105	0.090	0.047	0.071	0.122	0.115	0.092	0.076
75	25	0.053	0.123	0.172	0.227	0.616	0.037	0.086	0.129	0.179	0.575	0.036	0.052	0.071	0.095	0.423
75	75	**0.047**	**0.063**	**0.064**	**0.071**	**0.063**	**0.039**	**0.049**	**0.052**	**0.057**	**0.060**	**0.041**	**0.044**	**0.041**	**0.037**	**0.049**
75	125	0.046	0.059	0.063	0.060	0.052	0.043	0.049	0.061	0.059	0.050	0.052	0.050	0.051	0.046	0.049
75	175	0.052	0.079	0.074	0.075	0.052	0.047	0.070	0.076	0.065	0.046	0.052	0.059	0.065	0.058	0.048
125	25	0.065	0.135	0.201	0.261	0.779	0.038	0.092	0.152	0.200	0.745	0.043	0.057	0.079	0.110	0.589
125	75	0.047	0.070	0.084	0.091	0.166	0.042	0.047	0.061	0.084	0.152	0.046	0.035	0.047	0.054	0.113
125	125	**0.042**	**0.056**	**0.060**	**0.065**	**0.060**	**0.046**	**0.042**	**0.054**	**0.052**	**0.061**	**0.051**	**0.043**	**0.035**	**0.043**	**0.052**
125	175	0.048	0.058	0.063	0.055	0.060	0.045	0.057	0.058	0.056	0.055	0.053	0.047	0.046	0.046	0.046
175	25	0.060	0.134	0.218	0.290	0.855	0.031	0.086	0.163	0.236	0.814	0.039	0.058	0.081	0.113	0.671
175	75	0.046	0.068	0.084	0.102	0.242	0.044	0.052	0.070	0.081	0.231	0.043	0.040	0.047	0.057	0.175
175	125	0.043	0.065	0.076	0.080	0.104	0.049	0.047	0.058	0.063	0.108	0.054	0.045	0.039	0.042	0.083
175	175	**0.046**	**0.056**	**0.063**	**0.061**	**0.064**	**0.046**	**0.048**	**0.058**	**0.049**	**0.057**	**0.054**	**0.045**	**0.045**	**0.042**	**0.045**

Table 35: Size, Conditional-Rolling DGP, DM-IM2

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.045**	**0.055**	**0.056**	**0.057**	**0.054**	**0.041**	**0.050**	**0.054**	**0.053**	**0.057**	**0.047**	**0.040**	**0.045**	**0.041**	**0.042**
25	75	0.055	0.048	0.045	0.056	0.054	0.051	0.048	0.045	0.049	0.050	0.048	0.045	0.047	0.044	0.049
25	125	0.055	0.045	0.037	0.044	0.054	0.061	0.050	0.036	0.043	0.057	0.054	0.049	0.042	0.041	0.057
25	175	0.058	0.048	0.045	0.042	0.055	0.065	0.052	0.041	0.037	0.057	0.054	0.048	0.043	0.037	0.053
75	25	0.054	0.079	0.099	0.093	0.160	0.048	0.069	0.075	0.087	0.154	0.048	0.052	0.057	0.063	0.113
75	75	**0.045**	**0.050**	**0.055**	**0.065**	**0.061**	**0.047**	**0.051**	**0.062**	**0.060**	**0.061**	**0.052**	**0.044**	**0.048**	**0.053**	**0.062**
75	125	0.051	0.050	0.057	0.044	0.061	0.045	0.051	0.050	0.046	0.056	0.052	0.045	0.041	0.045	0.050
75	175	0.053	0.055	0.047	0.046	0.051	0.048	0.044	0.050	0.047	0.053	0.050	0.049	0.047	0.047	0.053
125	25	0.054	0.081	0.103	0.106	0.213	0.051	0.071	0.095	0.093	0.182	0.047	0.050	0.062	0.067	0.133
125	75	0.044	0.056	0.062	0.069	0.086	0.045	0.051	0.055	0.070	0.089	0.049	0.046	0.052	0.053	0.073
125	125	**0.049**	**0.053**	**0.052**	**0.057**	**0.059**	**0.046**	**0.048**	**0.053**	**0.054**	**0.057**	**0.057**	**0.048**	**0.046**	**0.048**	**0.054**
125	175	0.048	0.047	0.051	0.052	0.060	0.051	0.050	0.053	0.042	0.059	0.053	0.051	0.042	0.044	0.052
175	25	0.061	0.088	0.101	0.114	0.234	0.045	0.073	0.090	0.103	0.206	0.052	0.056	0.064	0.064	0.152
175	75	0.044	0.050	0.065	0.074	0.105	0.046	0.055	0.062	0.073	0.108	0.046	0.043	0.056	0.056	0.083
175	125	0.047	0.049	0.057	0.060	0.079	0.043	0.048	0.051	0.061	0.077	0.052	0.044	0.043	0.052	0.067
175	175	**0.049**	**0.048**	**0.052**	**0.047**	**0.060**	**0.047**	**0.047**	**0.049**	**0.048**	**0.064**	**0.049**	**0.044**	**0.045**	**0.044**	**0.065**

Table 36: Size, Conditional-Rolling DGP, DM-IM5

		$h=1$					$h=3$					$h=12$				
				P					P					P		
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.049**	**0.078**	**0.089**	**0.104**	**0.073**	**0.040**	**0.054**	**0.066**	**0.077**	**0.079**	**0.056**	**0.039**	**0.040**	**0.039**	**0.055**
25	75	0.070	0.063	0.048	0.053	0.084	0.076	0.055	0.052	0.048	0.079	0.077	0.053	0.043	0.044	0.062
25	125	0.077	0.076	0.054	0.046	0.080	0.097	0.077	0.045	0.047	0.077	0.082	0.071	0.047	0.038	0.065
25	175	0.091	0.086	0.056	0.048	0.068	0.105	0.100	0.053	0.043	0.065	0.097	0.095	0.068	0.047	0.070
75	25	0.064	0.130	0.188	0.250	0.492	0.047	0.095	0.144	0.196	0.455	0.050	0.052	0.067	0.077	0.298
75	75	**0.052**	**0.065**	**0.067**	**0.078**	**0.098**	**0.046**	**0.053**	**0.063**	**0.072**	**0.088**	**0.058**	**0.041**	**0.044**	**0.039**	**0.072**
75	125	0.049	0.057	0.065	0.066	0.094	0.057	0.052	0.066	0.061	0.081	0.067	0.053	0.046	0.045	0.074
75	175	0.053	0.070	0.063	0.062	0.079	0.061	0.060	0.057	0.057	0.073	0.076	0.056	0.055	0.053	0.063
125	25	0.063	0.144	0.233	0.291	0.670	0.045	0.105	0.168	0.225	0.619	0.061	0.061	0.077	0.089	0.418
125	75	0.050	0.069	0.092	0.107	0.207	0.050	0.052	0.076	0.096	0.193	0.062	0.038	0.049	0.057	0.142
125	125	**0.047**	**0.055**	**0.064**	**0.069**	**0.105**	**0.050**	**0.048**	**0.060**	**0.065**	**0.103**	**0.065**	**0.043**	**0.038**	**0.041**	**0.079**
125	175	0.046	0.058	0.065	0.063	0.101	0.056	0.056	0.056	0.059	0.095	0.073	0.045	0.046	0.047	0.079
175	25	0.066	0.154	0.241	0.312	0.751	0.043	0.108	0.175	0.258	0.695	0.052	0.058	0.077	0.097	0.490
175	75	0.051	0.070	0.096	0.116	0.292	0.049	0.054	0.078	0.100	0.272	0.064	0.038	0.051	0.055	0.193
175	125	0.050	0.060	0.075	0.088	0.167	0.053	0.048	0.060	0.078	0.162	0.068	0.046	0.039	0.044	0.122
175	175	**0.048**	**0.049**	**0.059**	**0.066**	**0.105**	**0.054**	**0.052**	**0.053**	**0.057**	**0.101**	**0.069**	**0.043**	**0.041**	**0.040**	**0.083**

Table 37: Size, Conditional-Rolling DGP, DM-IM10

		$h=1$					$h=3$					$h=12$				
				P					P					P		
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.048**	**0.068**	**0.077**	**0.086**	**0.089**	**0.070**	**0.058**	**0.069**	**0.073**	**0.079**	**0.109**	**0.053**	**0.048**	**0.047**	**0.060**
25	75	0.078	0.083	0.067	0.062	0.080	0.129	0.085	0.064	0.059	0.077	0.147	0.080	0.057	0.056	0.063
25	125	0.091	0.110	0.085	0.074	0.065	0.166	0.121	0.090	0.072	0.062	0.161	0.112	0.079	0.073	0.054
25	175	0.113	0.126	0.098	0.078	0.044	0.172	0.149	0.108	0.082	0.046	0.178	0.148	0.120	0.086	0.049
75	25	0.060	0.126	0.178	0.235	0.579	0.074	0.099	0.144	0.202	0.548	0.116	0.077	0.096	0.109	0.394
75	75	**0.054**	**0.062**	**0.067**	**0.075**	**0.099**	**0.084**	**0.059**	**0.061**	**0.073**	**0.095**	**0.124**	**0.058**	**0.050**	**0.042**	**0.081**
75	125	0.053	0.065	0.070	0.067	0.080	0.098	0.065	0.066	0.065	0.068	0.132	0.073	0.053	0.054	0.065
75	175	0.065	0.084	0.079	0.075	0.062	0.103	0.083	0.086	0.071	0.053	0.136	0.080	0.074	0.068	0.048
125	25	0.059	0.145	0.215	0.276	0.757	0.074	0.106	0.168	0.221	0.712	0.133	0.086	0.101	0.126	0.555
125	75	0.051	0.072	0.088	0.101	0.233	0.093	0.060	0.074	0.094	0.213	0.118	0.053	0.059	0.059	0.168
125	125	**0.049**	**0.059**	**0.063**	**0.071**	**0.089**	**0.094**	**0.055**	**0.058**	**0.062**	**0.093**	**0.118**	**0.058**	**0.046**	**0.048**	**0.067**
125	175	0.053	0.062	0.066	0.063	0.082	0.098	0.067	0.067	0.060	0.071	0.134	0.065	0.057	0.055	0.064
175	25	0.065	0.139	0.221	0.301	0.836	0.074	0.106	0.179	0.257	0.791	0.123	0.086	0.101	0.129	0.631
175	75	0.057	0.071	0.087	0.116	0.330	0.087	0.066	0.084	0.097	0.313	0.123	0.059	0.057	0.065	0.232
175	125	0.054	0.070	0.074	0.083	0.161	0.084	0.057	0.069	0.077	0.163	0.124	0.063	0.050	0.046	0.116
175	175	**0.053**	**0.054**	**0.064**	**0.072**	**0.092**	**0.091**	**0.059**	**0.065**	**0.062**	**0.082**	**0.129**	**0.063**	**0.052**	**0.051**	**0.072**

CR Size-Corrected Power Tables

Table 38: Size-Adjusted Power, Conditional-Rolling DGP, DM-R

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
25	75	0.095	0.091	0.091	0.077	0.073	0.091	0.088	0.080	0.072	0.054	0.064	0.058	0.062	0.057	0.049
25	125	0.115	0.153	0.134	0.112	0.105	0.119	0.138	0.123	0.109	0.087	0.073	0.081	0.074	0.081	0.070
25	175	0.133	0.175	0.174	0.140	0.115	0.130	0.175	0.160	0.135	0.102	0.086	0.108	0.106	0.090	0.088
75	25	0.042	0.087	0.115	0.149	0.509	0.046	0.072	0.113	0.132	0.473	0.045	0.062	0.079	0.107	0.410
75	75	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
75	125	0.050	0.074	0.063	0.066	0.055	0.063	0.053	0.059	0.055	0.046	0.057	0.059	0.056	0.061	0.053
75	175	0.066	0.092	0.080	0.084	0.066	0.071	0.075	0.086	0.075	0.050	0.059	0.057	0.070	0.077	0.051
125	25	0.046	0.094	0.129	0.179	0.704	0.039	0.085	0.119	0.149	0.646	0.041	0.061	0.087	0.099	0.568
125	75	0.044	0.056	0.070	0.077	0.142	0.045	0.049	0.058	0.074	0.126	0.049	0.050	0.064	0.055	0.110
125	125	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
125	175	0.051	0.062	0.068	0.058	0.064	0.057	0.066	0.057	0.050	0.050	0.054	0.058	0.062	0.053	0.050
175	25	0.052	0.091	0.135	0.170	0.761	0.033	0.080	0.128	0.183	0.737	0.043	0.065	0.085	0.115	0.663
175	75	0.045	0.053	0.062	0.065	0.197	0.048	0.050	0.062	0.073	0.192	0.044	0.048	0.054	0.063	0.179
175	125	0.048	0.057	0.057	0.057	0.084	0.047	0.049	0.056	0.059	0.092	0.041	0.050	0.049	0.058	0.089
175	175	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**

Table 39: Size-Adjusted Power, Conditional-Rolling DGP, DM-M

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
25	75	0.095	0.091	0.091	0.077	0.073	0.091	0.088	0.080	0.072	0.054	0.064	0.058	0.062	0.057	0.049
25	125	0.115	0.153	0.134	0.112	0.105	0.119	0.138	0.123	0.109	0.087	0.073	0.081	0.074	0.081	0.070
25	175	0.133	0.175	0.174	0.140	0.115	0.130	0.175	0.160	0.135	0.102	0.086	0.108	0.106	0.090	0.088
75	25	0.042	0.087	0.115	0.149	0.509	0.046	0.072	0.113	0.132	0.473	0.045	0.062	0.079	0.107	0.410
75	75	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
75	125	0.050	0.074	0.063	0.066	0.055	0.063	0.053	0.059	0.055	0.046	0.057	0.059	0.056	0.061	0.053
75	175	0.066	0.092	0.080	0.084	0.066	0.071	0.075	0.086	0.075	0.050	0.059	0.057	0.070	0.077	0.051
125	25	0.046	0.094	0.129	0.179	0.704	0.039	0.085	0.119	0.149	0.646	0.041	0.061	0.087	0.099	0.568
125	75	0.044	0.056	0.070	0.077	0.142	0.045	0.049	0.058	0.074	0.126	0.049	0.050	0.064	0.055	0.110
125	125	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
125	175	0.051	0.062	0.068	0.058	0.064	0.057	0.066	0.057	0.050	0.050	0.054	0.058	0.062	0.053	0.050
175	25	0.052	0.091	0.135	0.170	0.761	0.033	0.080	0.128	0.183	0.737	0.043	0.065	0.085	0.115	0.663
175	75	0.045	0.053	0.062	0.065	0.197	0.048	0.050	0.062	0.073	0.192	0.044	0.048	0.054	0.063	0.179
175	125	0.048	0.057	0.057	0.057	0.084	0.047	0.049	0.056	0.059	0.092	0.041	0.050	0.049	0.058	0.089
175	175	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**

Table 40: Size-Adjusted Power, Conditional-Rolling DGP, DM-NW

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
25	75	0.089	0.076	0.073	0.059	0.057	0.103	0.085	0.078	0.068	0.048	0.079	0.082	0.071	0.069	0.061
25	125	0.104	0.117	0.105	0.090	0.080	0.138	0.140	0.117	0.106	0.074	0.089	0.122	0.105	0.098	0.088
25	175	0.129	0.144	0.138	0.103	0.089	0.149	0.176	0.153	0.130	0.089	0.106	0.164	0.157	0.127	0.112
75	25	0.053	0.095	0.129	0.162	0.522	0.043	0.074	0.114	0.138	0.480	0.044	0.066	0.108	0.140	0.421
75	75	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
75	125	0.048	0.065	0.058	0.064	0.047	0.063	0.054	0.058	0.057	0.045	0.058	0.065	0.064	0.063	0.051
75	175	0.065	0.085	0.070	0.075	0.053	0.072	0.075	0.086	0.074	0.047	0.062	0.076	0.081	0.079	0.056
125	25	0.056	0.111	0.149	0.200	0.714	0.033	0.088	0.122	0.157	0.658	0.046	0.082	0.127	0.151	0.587
125	75	0.048	0.063	0.070	0.079	0.135	0.042	0.052	0.057	0.074	0.128	0.045	0.048	0.066	0.067	0.119
125	125	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
125	175	0.056	0.060	0.056	0.057	0.056	0.054	0.067	0.056	0.050	0.051	0.059	0.056	0.062	0.058	0.052
175	25	0.060	0.112	0.151	0.209	0.781	0.031	0.078	0.130	0.186	0.744	0.036	0.074	0.112	0.151	0.691
175	75	0.049	0.062	0.059	0.072	0.200	0.044	0.049	0.060	0.070	0.195	0.040	0.045	0.062	0.066	0.196
175	125	0.049	0.066	0.055	0.061	0.085	0.046	0.048	0.057	0.057	0.093	0.047	0.051	0.045	0.051	0.093
175	175	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**

Table 41: Size-Adjusted Power, Conditional-Rolling DGP, DM-NW-L

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
25	75	0.077	0.050	0.040	0.033	0.025	0.095	0.067	0.054	0.041	0.021	0.080	0.073	0.064	0.063	0.038
25	125	0.093	0.074	0.060	0.039	0.021	0.130	0.102	0.071	0.058	0.018	0.087	0.105	0.089	0.091	0.044
25	175	0.112	0.089	0.070	0.046	0.018	0.137	0.134	0.092	0.064	0.016	0.103	0.146	0.138	0.105	0.052
75	25	0.062	0.110	0.154	0.192	0.572	0.047	0.097	0.135	0.163	0.536	0.040	0.068	0.097	0.137	0.424
75	75	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
75	125	0.049	0.051	0.048	0.041	0.041	0.065	0.058	0.059	0.046	0.035	0.063	0.060	0.057	0.065	0.044
75	175	0.063	0.069	0.052	0.049	0.034	0.071	0.078	0.074	0.049	0.031	0.063	0.070	0.076	0.081	0.043
125	25	0.067	0.135	0.185	0.239	0.765	0.039	0.101	0.152	0.204	0.714	0.043	0.074	0.120	0.134	0.599
125	75	0.057	0.064	0.072	0.081	0.159	0.041	0.048	0.059	0.077	0.143	0.047	0.043	0.071	0.060	0.126
125	125	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
125	175	0.058	0.053	0.051	0.044	0.048	0.053	0.059	0.050	0.049	0.044	0.059	0.056	0.064	0.056	0.047
175	25	0.067	0.135	0.206	0.266	0.830	0.029	0.100	0.166	0.247	0.801	0.030	0.075	0.101	0.133	0.684
175	75	0.055	0.064	0.071	0.086	0.229	0.044	0.055	0.071	0.082	0.227	0.042	0.049	0.055	0.064	0.197
175	125	0.054	0.062	0.063	0.067	0.087	0.042	0.049	0.054	0.062	0.104	0.050	0.055	0.043	0.047	0.090
175	175	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**

Table 42: Size-Adjusted Power, Conditional-Rolling DGP, DM-FB

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
25	75	0.077	0.050	0.040	0.033	0.025	0.095	0.067	0.054	0.041	0.021	0.080	0.073	0.064	0.063	0.038
25	125	0.093	0.074	0.060	0.039	0.021	0.130	0.102	0.071	0.058	0.018	0.087	0.105	0.089	0.091	0.044
25	175	0.112	0.089	0.070	0.046	0.018	0.137	0.134	0.092	0.064	0.016	0.103	0.146	0.138	0.105	0.052
75	25	0.062	0.110	0.154	0.192	0.572	0.047	0.097	0.135	0.163	0.536	0.040	0.068	0.097	0.137	0.424
75	75	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
75	125	0.049	0.051	0.048	0.041	0.041	0.065	0.058	0.059	0.046	0.035	0.063	0.060	0.057	0.065	0.044
75	175	0.063	0.069	0.052	0.049	0.034	0.071	0.078	0.074	0.049	0.031	0.063	0.070	0.076	0.081	0.043
125	25	0.067	0.135	0.185	0.239	0.765	0.039	0.101	0.152	0.204	0.714	0.043	0.074	0.120	0.134	0.599
125	75	0.057	0.064	0.072	0.081	0.159	0.041	0.048	0.059	0.077	0.143	0.047	0.043	0.071	0.060	0.126
125	125	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
125	175	0.058	0.053	0.051	0.044	0.048	0.053	0.059	0.050	0.049	0.044	0.059	0.056	0.064	0.056	0.047
175	25	0.067	0.135	0.206	0.266	0.830	0.029	0.100	0.166	0.247	0.801	0.030	0.075	0.101	0.133	0.684
175	75	0.055	0.064	0.071	0.086	0.229	0.044	0.055	0.071	0.082	0.227	0.042	0.049	0.055	0.064	0.197
175	125	0.054	0.062	0.063	0.067	0.087	0.042	0.049	0.054	0.062	0.104	0.050	0.055	0.043	0.047	0.090
175	175	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**

Table 43: Size-Adjusted Power, Conditional-Rolling DGP, DM-EWC

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
25	75	0.059	0.051	0.035	0.033	0.020	0.080	0.066	0.055	0.046	0.018	0.068	0.071	0.062	0.066	0.044
25	125	0.065	0.074	0.055	0.042	0.022	0.104	0.097	0.073	0.064	0.020	0.077	0.106	0.091	0.092	0.058
25	175	0.076	0.084	0.062	0.051	0.023	0.104	0.126	0.097	0.072	0.025	0.085	0.141	0.140	0.113	0.074
75	25	0.057	0.097	0.152	0.188	0.577	0.051	0.088	0.127	0.167	0.544	0.044	0.060	0.084	0.126	0.425
75	75	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
75	125	0.049	0.044	0.051	0.042	0.039	0.057	0.052	0.059	0.053	0.037	0.063	0.056	0.061	0.063	0.050
75	175	0.055	0.061	0.057	0.052	0.037	0.062	0.072	0.074	0.058	0.037	0.063	0.068	0.077	0.076	0.049
125	25	0.074	0.124	0.182	0.223	0.764	0.041	0.102	0.146	0.195	0.711	0.042	0.063	0.108	0.125	0.582
125	75	0.054	0.062	0.072	0.074	0.149	0.044	0.055	0.058	0.081	0.132	0.045	0.039	0.066	0.060	0.110
125	125	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
125	175	0.057	0.052	0.052	0.044	0.052	0.047	0.063	0.055	0.053	0.046	0.052	0.055	0.061	0.052	0.044
175	25	0.065	0.125	0.196	0.260	0.826	0.036	0.091	0.148	0.241	0.800	0.036	0.064	0.091	0.125	0.687
175	75	0.052	0.061	0.070	0.087	0.208	0.050	0.055	0.063	0.083	0.213	0.041	0.046	0.054	0.064	0.185
175	125	0.045	0.060	0.065	0.065	0.084	0.053	0.050	0.051	0.064	0.099	0.051	0.052	0.045	0.050	0.089
175	175	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**

Table 44: Size-Adjusted Power, Conditional-Rolling DGP, DM-IM2

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
25	75	0.059	0.045	0.040	0.049	0.050	0.066	0.048	0.042	0.044	0.044	0.052	0.053	0.055	0.056	0.059
25	125	0.059	0.041	0.033	0.038	0.052	0.075	0.049	0.034	0.041	0.051	0.055	0.056	0.049	0.052	0.064
25	175	0.062	0.044	0.042	0.037	0.053	0.079	0.052	0.039	0.035	0.049	0.057	0.058	0.050	0.047	0.061
75	25	0.060	0.080	0.091	0.074	0.131	0.051	0.068	0.061	0.072	0.132	0.045	0.060	0.062	0.059	0.096
75	75	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
75	125	0.056	0.051	0.053	0.035	0.051	0.046	0.049	0.042	0.038	0.046	0.049	0.055	0.042	0.043	0.041
75	175	0.059	0.056	0.042	0.037	0.043	0.051	0.043	0.039	0.040	0.045	0.048	0.058	0.051	0.044	0.046
125	25	0.055	0.075	0.096	0.095	0.178	0.054	0.074	0.090	0.087	0.160	0.040	0.052	0.067	0.070	0.124
125	75	0.046	0.051	0.057	0.059	0.073	0.049	0.053	0.051	0.066	0.077	0.042	0.047	0.057	0.056	0.068
125	125	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
125	175	0.050	0.042	0.048	0.046	0.052	0.055	0.051	0.050	0.039	0.053	0.046	0.052	0.047	0.046	0.048
175	25	0.062	0.091	0.096	0.121	0.192	0.047	0.075	0.091	0.107	0.160	0.052	0.062	0.071	0.075	0.120
175	75	0.046	0.052	0.060	0.077	0.086	0.048	0.056	0.064	0.075	0.083	0.046	0.048	0.062	0.063	0.063
175	125	0.048	0.051	0.056	0.062	0.063	0.047	0.049	0.053	0.063	0.059	0.052	0.048	0.050	0.060	0.051
175	175	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**

Table 45: Size-Adjusted Power, Conditional-Rolling DGP, DM-IM5

		$h=1$					$h=3$					$h=12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
25	75	0.071	0.036	0.025	0.022	0.055	0.090	0.052	0.038	0.029	0.049	0.069	0.064	0.056	0.053	0.057
25	125	0.078	0.041	0.028	0.018	0.049	0.116	0.073	0.032	0.026	0.048	0.076	0.087	0.058	0.050	0.060
25	175	0.093	0.053	0.029	0.014	0.043	0.123	0.091	0.037	0.024	0.039	0.089	0.112	0.089	0.058	0.065
75	25	0.062	0.105	0.147	0.183	0.332	0.050	0.092	0.113	0.154	0.316	0.042	0.061	0.077	0.096	0.220
75	75	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
75	125	0.047	0.042	0.047	0.040	0.045	0.060	0.050	0.051	0.041	0.044	0.059	0.060	0.052	0.055	0.050
75	175	0.052	0.051	0.043	0.036	0.039	0.065	0.058	0.044	0.038	0.045	0.065	0.065	0.062	0.065	0.043
125	25	0.068	0.135	0.190	0.253	0.461	0.044	0.109	0.145	0.185	0.412	0.046	0.072	0.097	0.113	0.280
125	75	0.053	0.065	0.071	0.080	0.108	0.050	0.055	0.066	0.075	0.107	0.048	0.046	0.062	0.068	0.085
125	125	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
125	175	0.051	0.053	0.048	0.047	0.046	0.055	0.058	0.048	0.044	0.047	0.058	0.054	0.061	0.056	0.045
175	25	0.069	0.158	0.220	0.263	0.540	0.038	0.104	0.165	0.224	0.488	0.036	0.071	0.094	0.112	0.342
175	75	0.053	0.071	0.086	0.091	0.159	0.046	0.051	0.074	0.086	0.154	0.047	0.047	0.059	0.063	0.127
175	125	0.054	0.061	0.065	0.071	0.083	0.048	0.046	0.057	0.066	0.084	0.050	0.055	0.047	0.050	0.073
175	175	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**

Table 46: Size-Adjusted Power, Conditional-Rolling DGP, DM-IM10

		$h = 1$					$h = 3$					$h = 12$				
		P					P					P				
R	$\widetilde{R}$	25	75	125	175	1000	25	75	125	175	1000	25	75	125	175	1000
25	25	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
25	75	0.080	0.062	0.039	0.027	0.044	0.097	0.073	0.047	0.035	0.047	0.082	0.075	0.059	0.060	0.051
25	125	0.096	0.081	0.052	0.033	0.029	0.131	0.108	0.064	0.044	0.033	0.090	0.106	0.082	0.076	0.044
25	175	0.116	0.096	0.061	0.034	0.018	0.139	0.133	0.081	0.048	0.021	0.107	0.140	0.123	0.089	0.039
75	25	0.056	0.106	0.153	0.180	0.425	0.047	0.086	0.127	0.155	0.386	0.042	0.065	0.097	0.123	0.298
75	75	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
75	125	0.048	0.054	0.055	0.039	0.036	0.067	0.058	0.055	0.041	0.035	0.052	0.062	0.053	0.062	0.039
75	175	0.060	0.068	0.057	0.042	0.026	0.072	0.073	0.072	0.045	0.021	0.059	0.070	0.075	0.076	0.029
125	25	0.059	0.127	0.183	0.230	0.649	0.034	0.096	0.138	0.191	0.589	0.046	0.071	0.105	0.132	0.483
125	75	0.052	0.062	0.069	0.074	0.162	0.045	0.054	0.062	0.080	0.140	0.051	0.044	0.062	0.061	0.134
125	125	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
125	175	0.054	0.051	0.051	0.045	0.043	0.050	0.060	0.054	0.047	0.039	0.058	0.055	0.061	0.058	0.048
175	25	0.062	0.133	0.192	0.244	0.742	0.036	0.091	0.148	0.227	0.688	0.037	0.067	0.095	0.126	0.539
175	75	0.054	0.067	0.072	0.083	0.232	0.046	0.057	0.068	0.083	0.221	0.040	0.044	0.054	0.064	0.182
175	125	0.052	0.066	0.062	0.060	0.101	0.044	0.048	0.052	0.065	0.101	0.046	0.049	0.046	0.044	0.085
175	175	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**