Table 5.1: Pre-defined seasonal adjustment specifications.

Specification	Transformation	Pre-adjustment for leap-year	Working days	Trading days	Easter effect	Outliers	ARIMA model
RSA0	no	no	no	no	no	no	(0,1,1)(0,1,1)
RSA1	test	no	no	no	no	test	(0,1,1)(0,1,1)
RSA2	test	no	test	no	test	test	(0,1,1)(0,1,1)
RSA3	test	no	no	no	no	test	AMI
RSA4	test	no	test	no	test	test	AMI
RSA5	test	no	no	test	test	test	AMI
RSAfull	test	no	test		test	test	AMI
X11	no	no	no	no	no	no	(0,1,1)(0,1,1)
RSA1	test	no	no	no	no	test	(0,1,1)(0,1,1)
RSA2c	test	test	test	no	test	test	(0,1,1)(0,1,1)
RSA3	test	no	no	no	no	test	AMI
RSA4c	test	test	test	no	test	test	AMI
RSA5	test	test	no	test	test	test	AMI

Explanations for settings:

- **Transformation test** – a test is performed to choose between an additive decomposition (no transformation) and a multiplicative decomposition (logarithmic transformation).
- **Pre-adjustment for leap-year** – a correction of the February values, which is applied to the original series before the logarithmic transformation. The original values in February are multiplied by $\frac{28.25}{29}$ for leap years and by $\frac{28.25}{28}$ for non-leap years. Values for other months are not modified.
- **Working days** – a pre-test is made for a presence of a working day effect.
- **Trading days** – a pre-test is made for a presence of a trading day effect.
- **Easter** – a pre-test for a presence of the Easter effect. The default length of the Easter effect is 6 days (for TRAMO/SEATS specifications) and 8 days (for X-13ARIMA-SEATS specifications).
- **Outliers** – an automatic identification of three types of outliers: AO (additive outliers), LS (level shifts) and TC (transitory changes), using a default critical value.
- **ARIMA model** – the choice between fixing the ARIMA model structure to (0,1,1)(0,1,1) or searching for the ARIMA model using an automatic model identification procedure (AMI). The (0,1,1)(0,1,1) model (called the Airline model) is used as a default model in several TRAMO/SEATS and X-13ARIMA-SEATS specifications because it has been shown in many studies that this model is appropriate for many real seasonal monthly or a quarterly time series. Moreover, the Airline model approximates well many other models and provides an excellent "benchmark" model[62].

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[62] MARAVALL, A. (2009).