

Table 2 Results from unit root and stationarity tests for suicide according to sex

Sex	No-shift		Sharp-shift			Smooth-shift		
	ADF	Sign	ZA	Sign	Break date	EL	Sign	k ^c
Constant model								
Male	1.097		-4.825	*	1999	-0.146		1
Female	-1.318		-3.573		1994	-3.007		1
Constant and trend model								
Male	-1.546		-6.513	***	1990	-6.051	***	1
Female	-2.354		-4.673		1999	-3.521		1
Stationarity tests^b								
	KPSS	Sign	Kurozumi	Sign	Break date	BEL	Sign	k ^c
Constant model								
Male	0.593	**	0.138		2000	0.332	***	1
Female	0.549	**	0.126		1995	0.268	**	1
Constant and trend model								
Male	0.179	**	0.069		2000	0.031		1
Female	0.084		0.073		2000	0.060	**	1

Sign = significance: *** = 1%, ** = 5% and * = 10%.

^aBased on t-stat significance rule as in Zivot and Andrews (16).

^bBased on Bartlett kernel with Kurozumi (17) rule.

^cBased on minimizing sums of squared residuals (see 14).

In what follows, Δy_t is [1] for constant model and [1,t] for constant and trend model: ADF: $\Delta y_t = d_t^* \theta + \alpha y_{t-1} + \sum_{j=1}^p \beta_j \Delta y_{t-j} + \varepsilon_t$

The critical values (CVs) are -3.61 (1%), -2.94 (5%), -2.60 (10%) (constant model), and -4.21 (1%), -3.53 (5%), -3.20 (10%) (constant and trend model).

ZA: $\Delta y_t = d_t^* \theta + \mu_1 D U_t + \varphi_1 D T_t + \alpha y_{t-1} + \sum_{j=1}^p \beta_j \Delta y_{t-j} + \varepsilon_t$

The CVs are: -5.34 (1%), -4.80 (5%), -4.58 (10%) (constant model) [Table 2, (16):256], and -5.57 (1%), -5.08 (5%), -4.82 (10%) (constant and trend model) [Table 4, (16):257].

EL: $\Delta y_t = d_t^* \theta + \varphi_1 \sin(2\pi kt/T) + \varphi_2 \cos(2\pi kt/T) + \alpha y_{t-1} + \sum_{j=1}^p \beta_j \Delta y_{t-j} + \varepsilon_t$

The CVs are: -4.42 (1%), -3.81 (5%), -3.49 (10%) for $k = 1$ (constant model) [Table 1b; EL, (13):197] and -4.95 (1%), -4.35 (5%), -4.05 (10%) for $k = 1$ (constant and trend model) [Table 1a; EL, (18):197].

KPSS: $y_t = d_t^* \theta + \varepsilon_t$

The CVs are 0.739 (1%), 0.463 (5%), 0.347 (10%) (constant model), and 0.216 (1%), 0.146 (5%), 0.119 (10%) (constant and trend model) [Table 1; KPSS, (13):166].

Kurozumi: $y_t = d_t^* \theta + \mu_1 D U_t + \varphi_1 D T_t + \varepsilon_t$

The CVs are 1.074 (1%), 0.748 (5%), 0.607 (10%) (constant model) [Table 2, Case 0; Kurozumi, (17):76], and 0.329 (1%), 0.247 (5%), 0.211 (10%) (constant and trend model) [Table 2, Case 3; Kurozumi, (17):76].

BEL: $y_t = d_t^* \theta + \varphi_1 \sin(2\pi kt/T) + \varphi_2 \cos(2\pi kt/T) + \varepsilon_t$

The CVs are: 0.2699 (1%), 0.1720 (5%), 0.1318 (10%) (constant model), and 0.0716 (1%), 0.0546 (5%), 0.0471 (10%) (constant and trend model) [Table 1a; BEL, (12):389].