

Appendix: Stata Commands

Horizontal Innovation

In what follows, n denotes the number of firms per capita and t denotes time.

```
nl log3: n t
```

```
nl log3: n t, vce(hac nw)
```

```
nl log3: n t, vce(robust)
```

```
predict u, residuals (obtain residuals)
```

```
sktest u (normality tests)
```

```
dfglr u, notrend (D-F (GLS) test)
```

```
dfuller u, noconstant lags(9) (Augmented D-F test)
```

```
pperron u, noconstant (Phillips-Perron test)
```

Vertical Innovation

In what follows, $\ln T$ denotes the natural logarithm of TFP and t denotes time.

```
nl (lnT = {b1=0.1} + {b2=0.1}*t + {b3=0.1}*(1 - exp(-1*{b4=0.1}*t)))
```

```
nl (lnT = {b1=0.1} + {b2=0.1}*t + {b3=0.1}*(1 - exp(-1*{b4=0.1}*t))),  
vce(hac nw)
```

```
nl (lnT = {b1=0.1} + {b2=0.1}*t + {b3=0.1}*(1 - exp(-1*{b4=0.1}*t))),  
vce(robust)
```

```
predict u, residuals (obtain residuals)
```

```
sktest u (normality tests)
```

```
dfglr u, notrend (D-F (GLS) test)
```

```
dfuller u, noconstant lags(7) (Augmented D-F test)
```

```
pperron u, noconstant (Phillips-Perron test)
```