**Appendix A. Calculation details of model 1**

The payment matrix of Enterprise-A is defined as A, which is shown as follows：

**** (A1)

 (A2)

 (A3)

 (A4)

The payment matrix of Enterprise-B is defined as B, which is shown as follows：

**** (A5)

 (A6)

 (A7)

 (A8)

 (A9)

 (A10)

 (A11)

 (A12)

 (A13)

 (A14)

 (A15)

**Table A1** The determinant and trace of the Jacobian matrix

|  |  |  |
| --- | --- | --- |
| Equilibrium point | determinant expression | trace expression |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**Appendix B. Calculation details of model 2**

The payment matrix of Enterprise-Z is defined as , which is shown as follows：

 (B1)

 (B2)

 (B3) (B4)

The payment matrix of Government-W is defined as W, which is shown as follows：

(B5)

 (B6)

 (B7)

 (B8)

 (B9)

 (B10)

 (B11)

 (B12)

 (B13)



 (B14)

 (B15)

**Table B1** The determinant and trace of the Jacobian matrix

|  |  |  |
| --- | --- | --- |
| Equilibrium point | determinant expression | trace expression |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  | 0 |