**Directed Acyclic Graph (DAG) v1**

Source: <https://dagitty.net>

* **Summary**

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| exposure | Extreme event\_j,t (treatment) |  |
| outcome | External finance\_i,j,t (outcome) |
| covariates | 7 |
| causal paths | 2 |

* **Causal effect identification: total effect**

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| **Unobserved**: time-varying Recipient’s characteristics, time-varying Donor-Recipient’s relationship, time-varying Donor’s relationship, Extreme event in third-party country. |
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| **Adjusted**: Extreme event in previous period(s) [lagged treatment], time-varying Recipient's characteristics.  **Unobserved**: time-varying Donor-Recipient relationship, time-varying Donor’s characteristics, Extreme event in third-party country. |

* **Causal effect identification: direct effect**

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| **Unobserved**: time-varying Recipient’s characteristics, Donor-Recipient’s relationship, Donor’s characteristics, Extreme event in j for period t-1, Extreme event in Third-party z. |

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| **Adjusted:** time-varying Recipient’s characteristics, Donor-Recipient’s relationship, Extreme event in j for period t-1.  **Incorrectly adjusted:** Channel of delivery.  **Unobserved**: Donor’s characteristics, Extreme event in Third-party z. |