



rise in economic openness has also made countries more vulnerable to international economic volatility, and to trade volatility in particular. Many studies have established that trade volatility can harm a country's economic growth. For example, Turnovsky and Chattopadhyay (2003) present a theoretical







### 3. Empirical Model

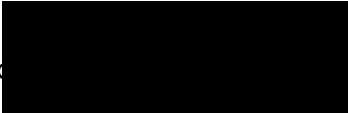
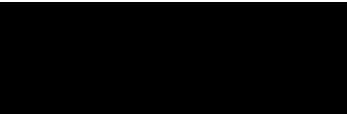
#### 3.1 Baseline Empirical Specification and Variables



the term  $V_{im}^{NWTO}$  in equation (4) is the volatility of imports in the US from Venus. The actual  $V_{im}^{WTO}$  and  $V_{im}^{NWTO}$  terms we include in our model are calculated based on the import volatilities of all dyads  $i-m$  in our sample.







## 4. E $a_{\tau}$

### 4.1. Baseline Regressions without Spatial Dependence



become WTO members. We estimate the following model (see also Head and Mayer, [2014](#); Rose, [2019](#)):

$$M_{ijt} = bZ + m_i + x_j + d_t + e_{ijt}, \text{ over } t$$

71..... 11/1/1/8.3.1. . . . . 8919+76 :0 6 18 -i 89 \* 89 - / 18 (4) \* ZZZZ 10  
Z1111 ( ) ... 8 1 59 28 \* #88 89 \* 89 - / 18 (4) \* ZZZZ 10 :0 48 + + + ) 85 29 , "

71..... 11/1/1/8.2.1. . . . . 8919+76 :0 6 18 -; 89 . 89 . / 18 (4) . ZZZZ :0  
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As both countries i and j are WTO members in our new regressions, the variable ~~BothWTO~~termsd





and reduce the predictability of trade.<sup>12</sup> These might lead to a decline of trade volatility comovement among WTO trading pairs shown in the subsample results. Over the latter subsample periods, new developments facilitating international trade and a more formal and effective trade

countries. As a result, we could see the volatility of trade of non-members co-move with that of

$w_k^{\text{WTO}} \cdot \text{trade}_{ikt}$  and  $w_k^{\text{NWTO}} \cdot \text{trade}_{ikt}$

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