

Supplementary



Figure S1. Map of the world with cities considered in the study.

Table S1: Statistical parameters of Equation (1).

SUMMARY OUTPUT								
<i>Regression Statistics</i>								
Multiple R		0.909261						
R Square		0.826756						
Adjusted R Square		0.817392						
Standard Error		0.158917						
Observations		40						
Characteristics	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	2	4.45925	2.229625	88.28588	8.23×10 ⁻¹⁵			
Residual	37	0.93442	0.025255	-	-			
Total	39	5.393671	-	-	-			
-	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.01457	0.070407	-0.20696	0.837176	-0.15723	0.128087	-0.15723	0.128087
X Variable 1	-0.01068	0.002825	-3.77881	0.000556	-0.0164	-0.00495	-0.0164	-0.00495
X Variable 2	0.016732	0.001314	12.73726	4.27×10 ⁻¹⁵	0.014071	0.019394	0.014071	0.019394

Table S2. Statistical characteristics of Equation (2).

SUMMARY OUTPUT								
<i>Regression Statistics</i>								
Multiple R	0.952189							
R Square	0.906664							
Adjusted R Square	0.881023							
Standard Error	0.177812							
Observations	40							
<hr/>								
Characteristics	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	11.97811	11.97811	378.8472	2.32×10 ⁻²¹			
Residual	39	1.233073	0.031617					
Total	40	13.21118						
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-	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
X Variable 1	0.018087	0.000929	19.464	1.1×10 ⁻²¹	0.016207	0.019966	0.016207	0.019966

Table S3. Statistical Characteristics of Equation (3).

SUMMARY OUTPUT									
<i>Regression Statistics</i>									
Multiple R	0.99161								
R Square	0.98329								
Adjusted R Square	0.474936								
Standard Error	0.157163								
Observations	4								
 ANOVA									
Characteristics	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>				
Regression	2	2.907001	1.4535	58.84562	0.091789				
Residual	2	0.0494	0.0247						
Total	4	2.956401							
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
X Variable 1	0.007931	0.005733	1.38349	0.300701	-0.01673	0.032598	-0.01673	0.032598	0.019966
X Variable 2	0.000132	8.02×10 ⁻⁵	1.649013	0.240919	-0.00021	0.000477	-0.00021	0.000477	

Table S4. Statistical Characteristics of Equation (4).

SUMMARY OUTPUT					
<i>Regression Statistics</i>					
Multiple R	0.928333				
R Square	0.861802				
Adjusted R Square	0.847255				
Standard Error	0.228298				
Observations	22				
 <i>ANOVA</i>					
Characteristics	<i>Df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	6.175379	3.08769	59.24195	6.84E-09
Residual	19	0.99028	0.05212		
Total	21	7.165659			