

# Data Initiatives: ECIR Data Dashboard

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## Purpose

- To provide historical trend data, current statistics, headline news to interested stakeholders
- To provide the opportunity for exploring cyber security relations and trends across countries
- To identify data problems, limitations, and challenges, and to select effective responses
- Contains an initial set of potentially interesting types of attributes

## Range of Data Attributes

- Demographic Attributes
- IT Attributes
- Political Attributes
- Threat Attributes
- Cyber Crime Attributes

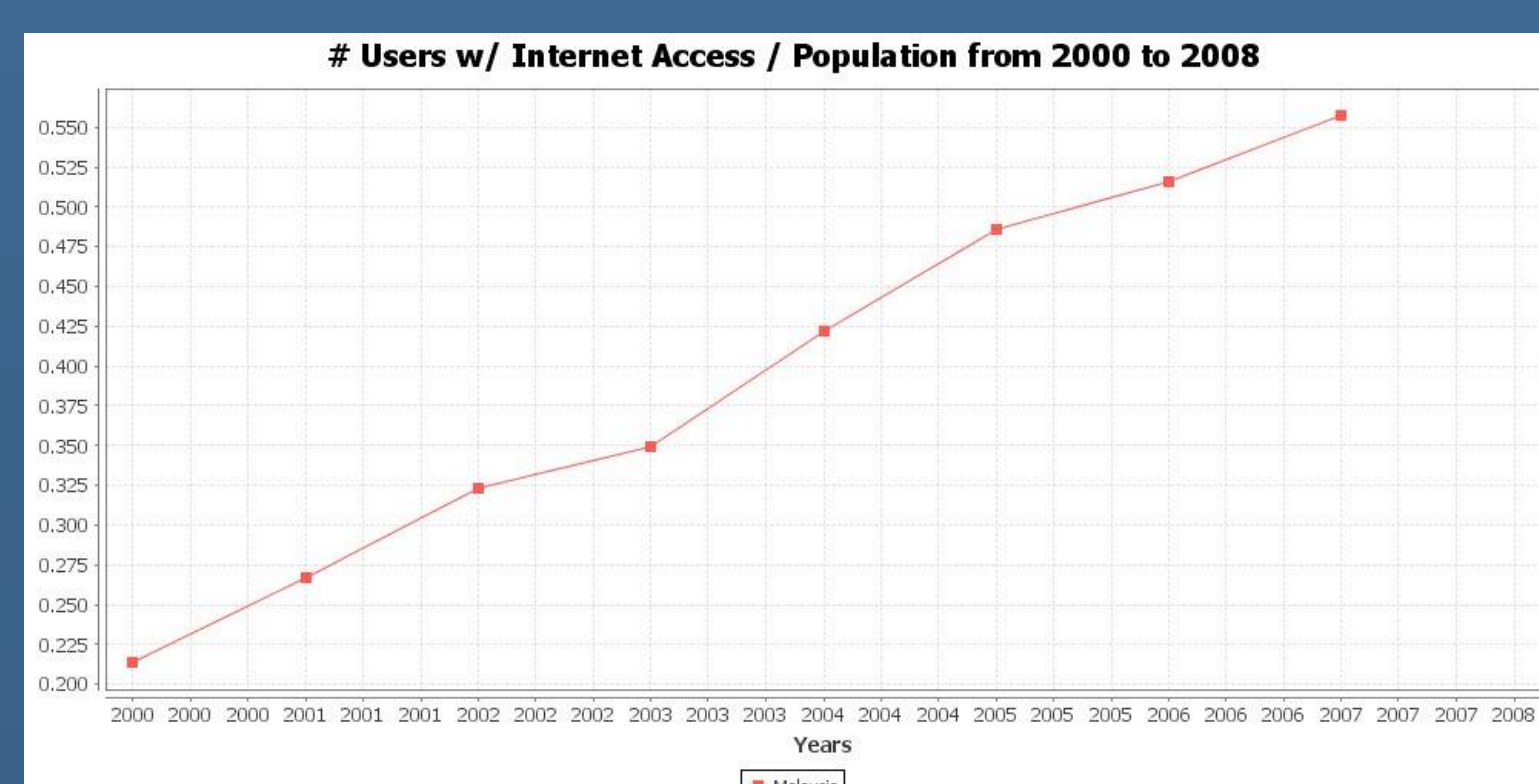
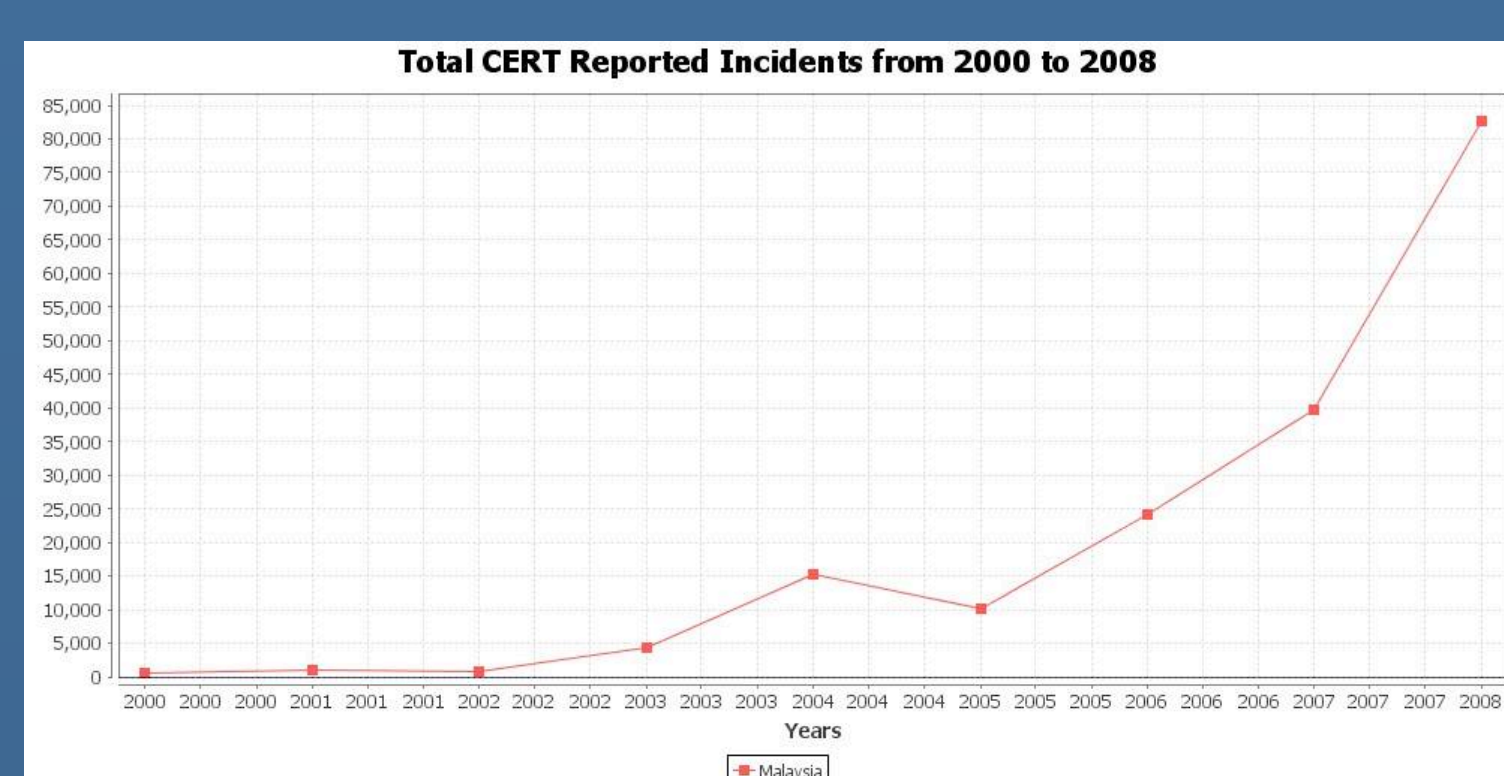
## Key Sources

- BSA & IDC Global Software Piracy Study
- CIA World Factbook
- Polity IV
- SIPRI: Stockholm International Peace Research Institute
- World Development Indicators Database
- World Bank Governance Indicators Database
- World Telecommunication/ICT Indicators Database

## CERTs

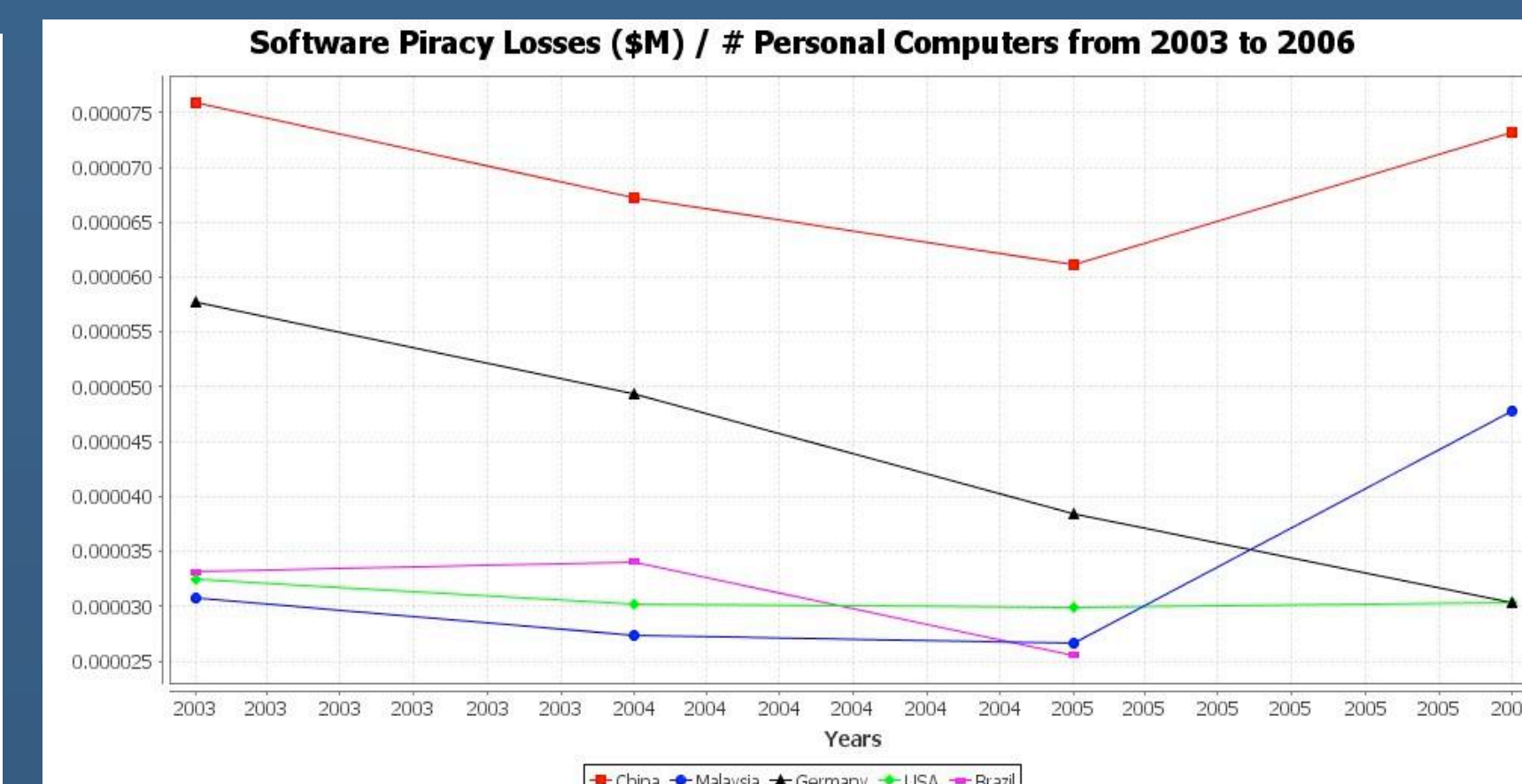
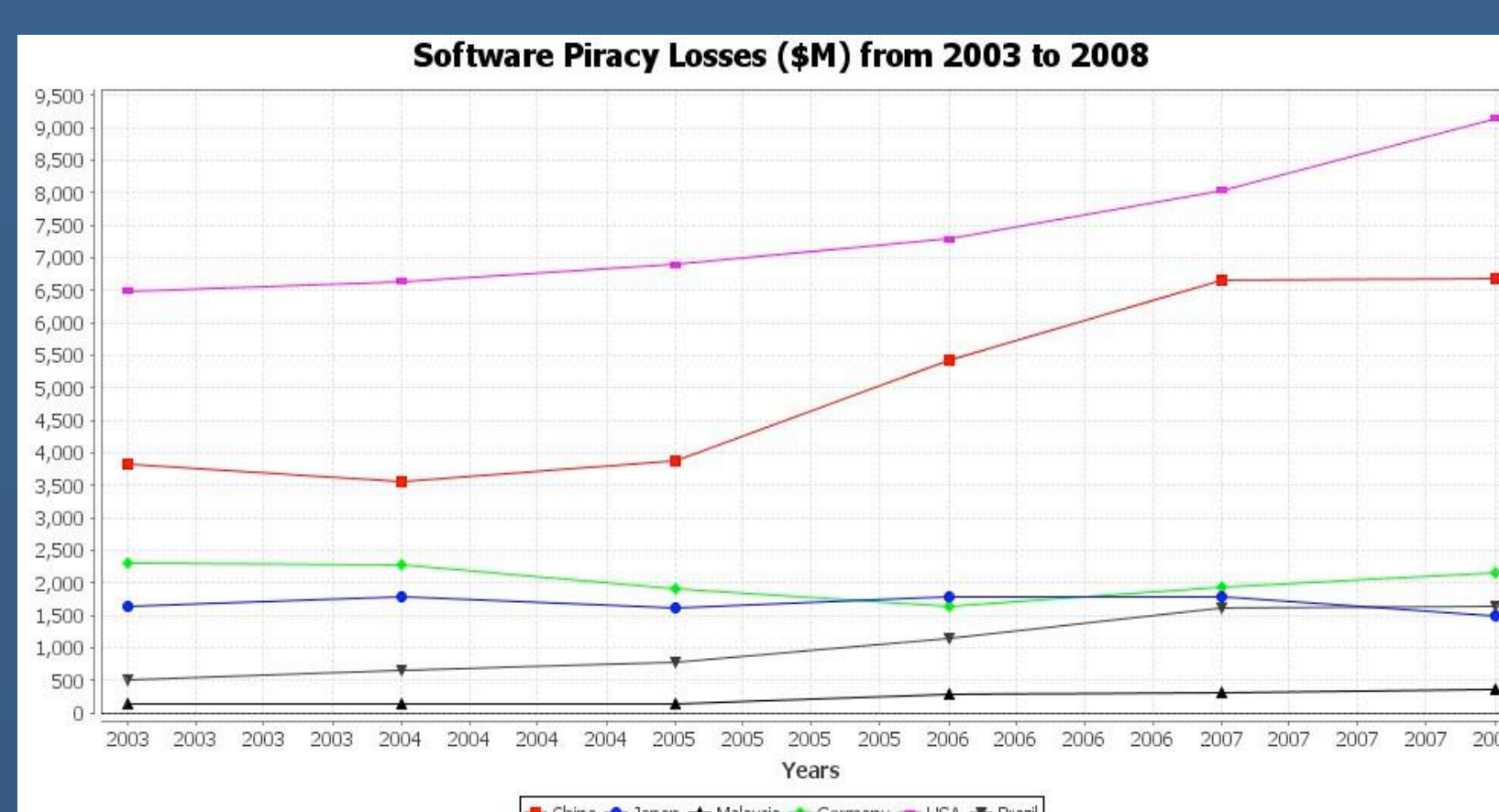
- Computer Emergency Response Teams (CERTs)
- Motivated by the Morris Worm
- Current status: 54 Countries / Regions with CERTs
- US-CERT

## Observation: Malaysia



## Observation: Software Piracy Losses

- German decrease
- Result of effective legal response?
- Malaysian sharp increase in 2005
- Overall:
- Some countries highly variable;
- others show relative stable piracy rates



## Conclusions

- Although Internet data are scarce, interesting trends can be observed with available data
- Inconsistencies and ambiguities exist between data-collecting organizations
- Standardization of data collecting methods and greater data availability would increase reliability of conclusions and observations
- **An argument for increasing the quantity and quality of cyber data gathered and disseminated by CERTs and other such organizations**

## Web User Interface

http://coin.mit.edu:8080/Dashboard/

MRI Topic 5: ECIR - Explorations in Cyber International Relations  
**DATA DASHBOARD**

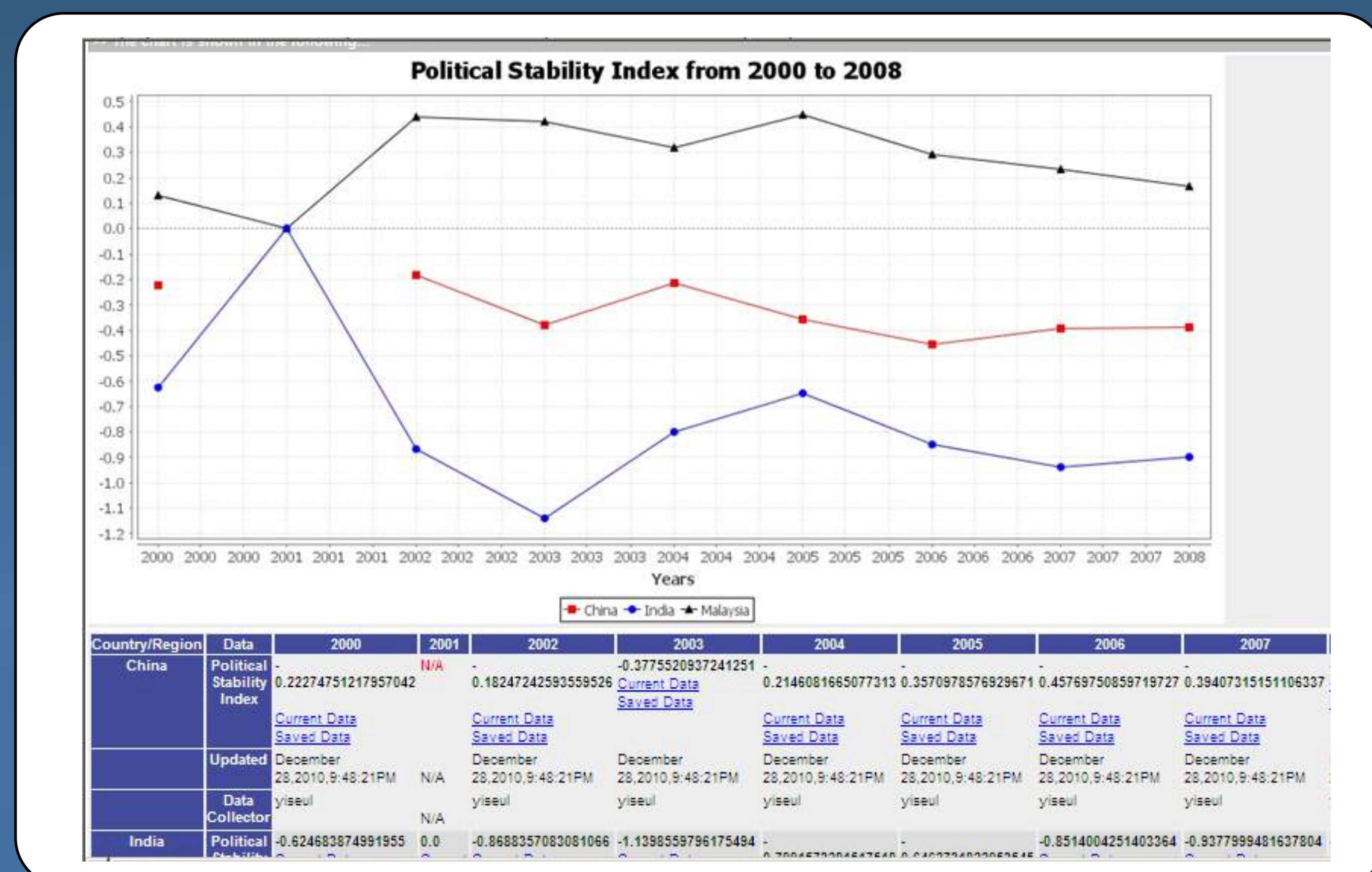
Choose one or more countries/regions: --World, --Asia, --China, --India, --Japan, --Malaysia, --Republic of Korea, --Republic of China (Taiwan), --United Arab Emirates, --Europe

X-Axis: select the observation period  
Start Year: 2000, End Year: 2008

Y-Axis: select attribute to be observed  
Attribute 1: Virus/worm/malicious code/malware, Attribute 2: Total CERT Reported Incidents

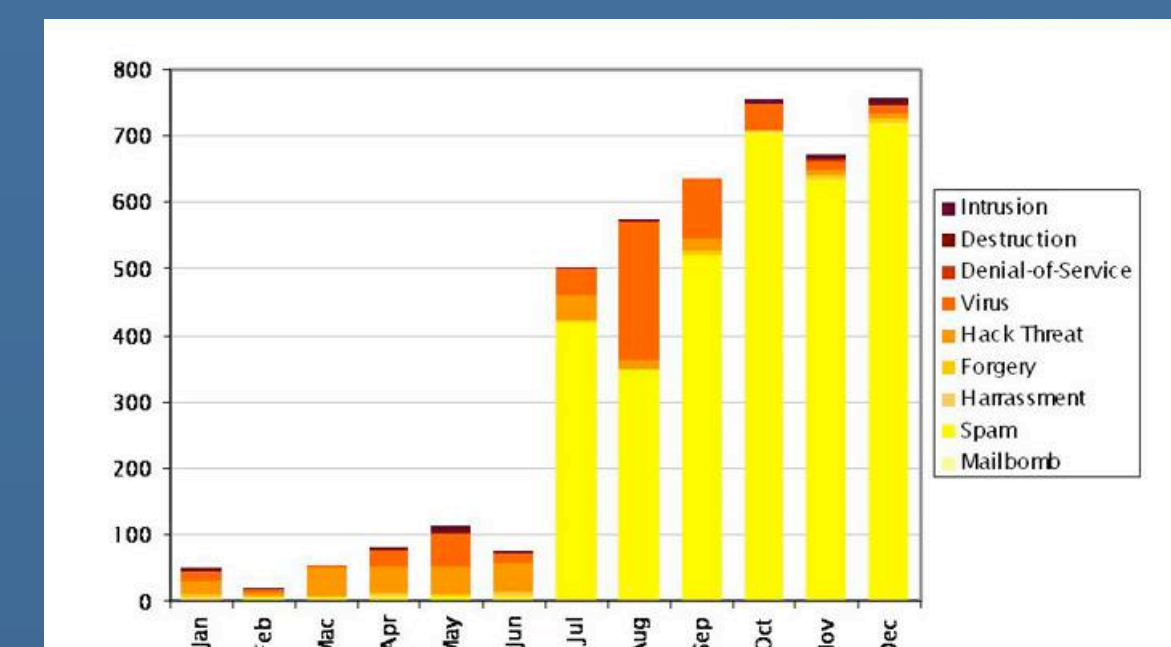
Operator: Divided By, Y-Axis Style: Linear, Logarithmic

Recent Headlines:  
**Collins Urges Obama to Beef Up Cyber-Security**  
Lieberman lays out his cyber security plan



	2000	2001	2002	2003	2004	2005	2006	2007	2008
Spam	156	82	114	3,383	14,371	9,282	21,880	38,601	80,526
% Total	31%	9%	15%	79%	94%	91%	90%	97%	97%

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