

Process Book

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Project title

The Economic Predictors of War

Name, email, programming comfortability of each member of your group

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Programming comfort level: 7 out of 10

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Programming comfort level: 5 out of 10

Research questions and hypotheses:

Are there economic indicators in countries that predictably precedes their involvement in military conflicts?

Sub-Questions:

- For each military conflict in recent history (going back as far as WWI if we can get the data), what was the state of the economy for each of the major participants?

Motivation: Explain why you are interested in your research question(s).

This is a continuation of Devin's project I data set and we are both interested in the linkages between economics and war. If reliable economic predictors of military conflict could be found, preventative steps could be taken by allies and the international community, potentially avoiding war and unnecessary loss of life.

Data:

The data for the military spending can be obtained from the World Bank as can the data on GDP and inflation.

Historical GDP data back to 1820 can be found here:

<http://www.worldeconomics.com/Data/MadisonHistoricalGDP/Madison%20Historical%20GDP%20Data.efp>

Information on military conflicts can be obtained through Wikipedia

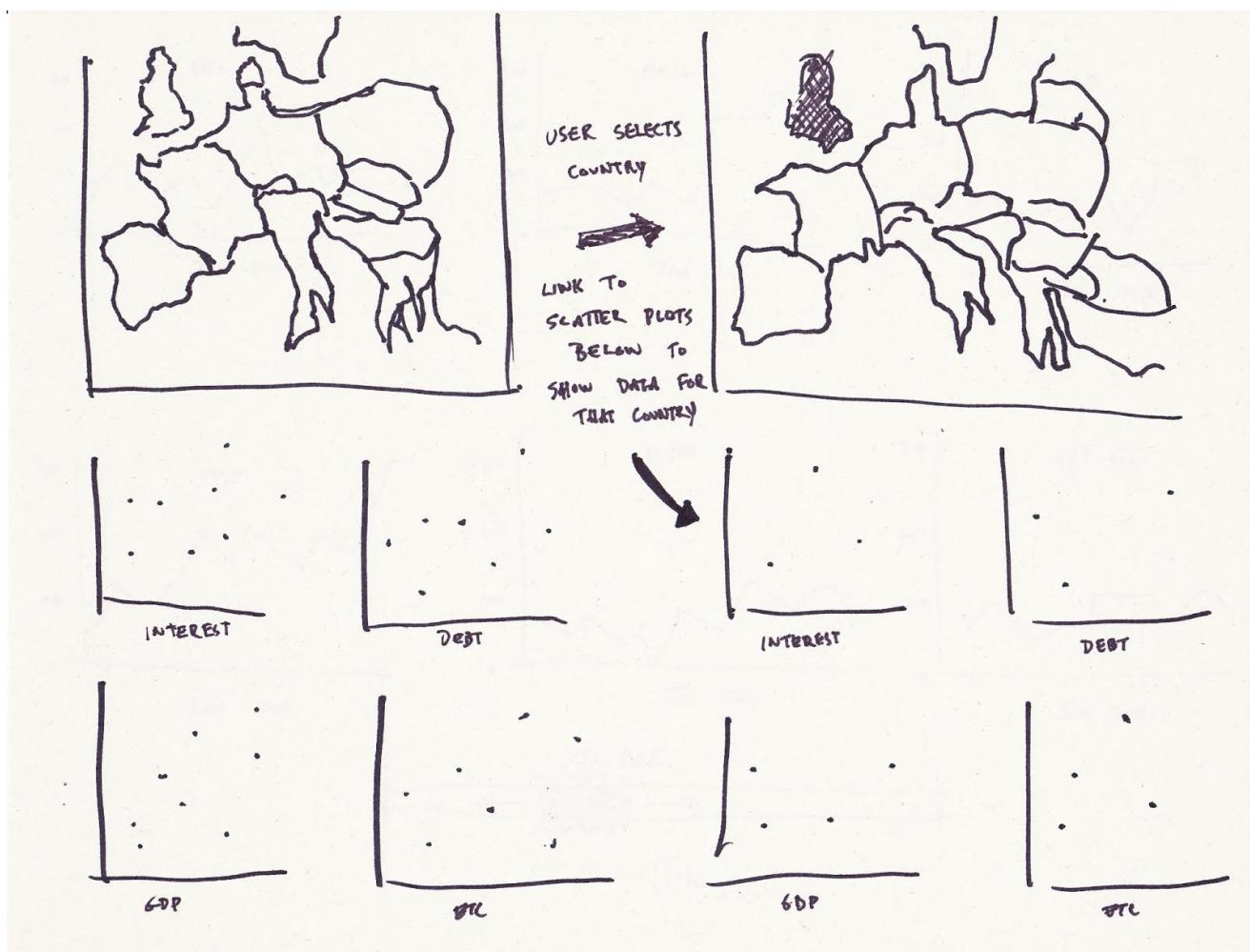
Historical Oil Reserves

<http://www.bp.com/sectiongenericarticle800.do?categoryId=9037130&contentId=7068669>

Visualization:

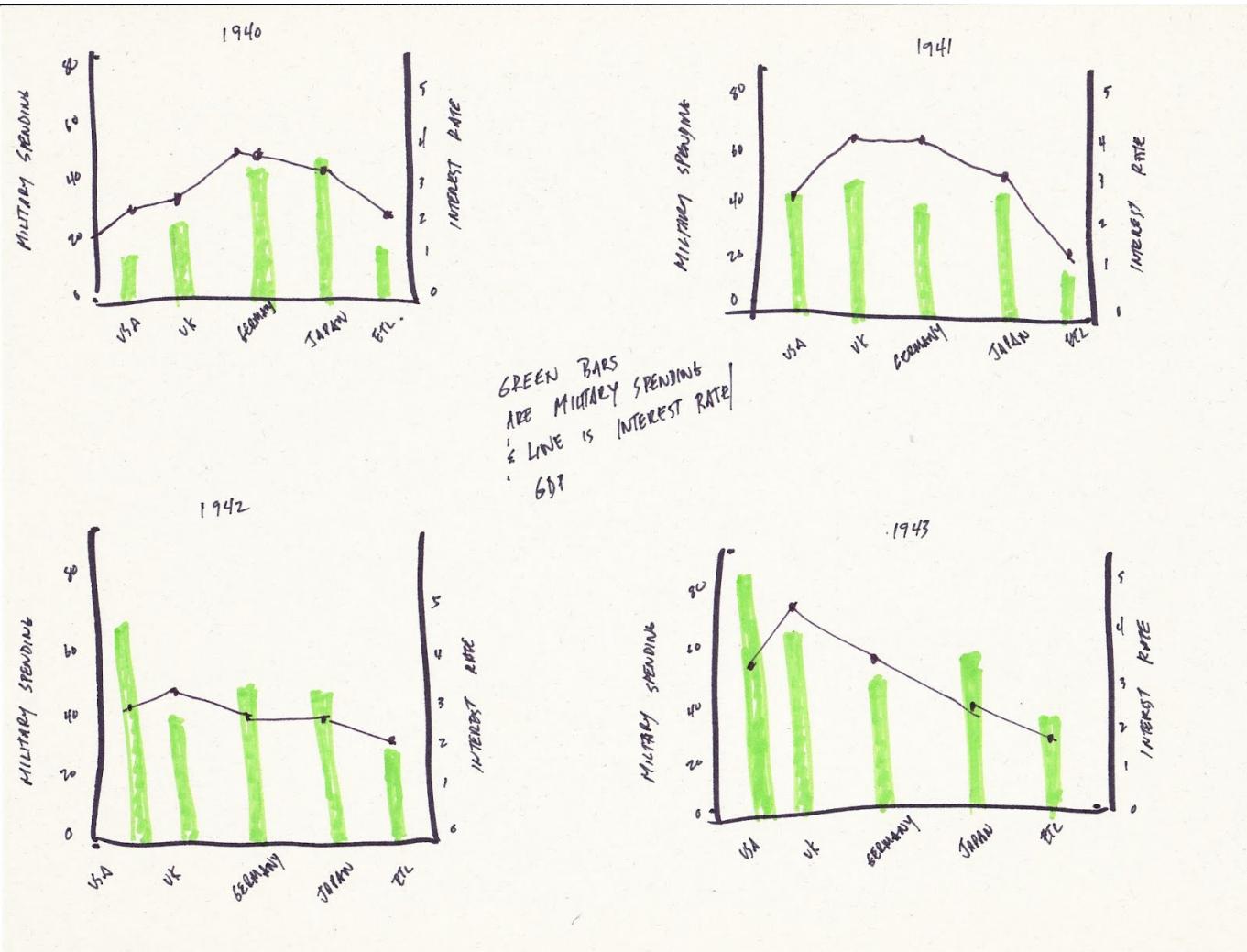
Visualizations we aim to implement:

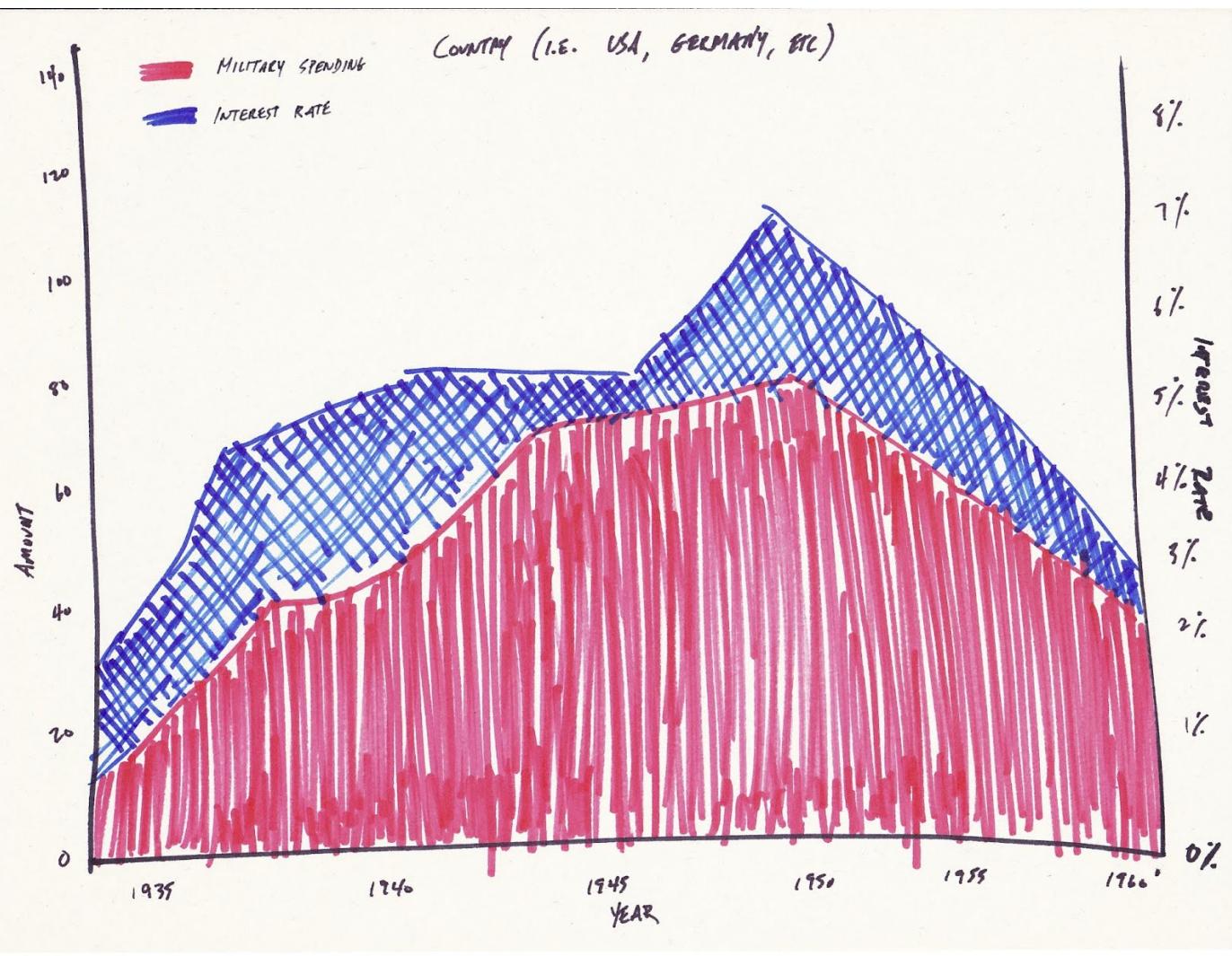
To correlate the data a scatter plot would be a logical choice. However, to see the data over time a line graph could also be implemented. To correlate this data to particular countries we plan to implement a map visualization and through the use of linking and brushing update the associated scatter plot (or line/bar chart). A rough sketch of this can be seen below:

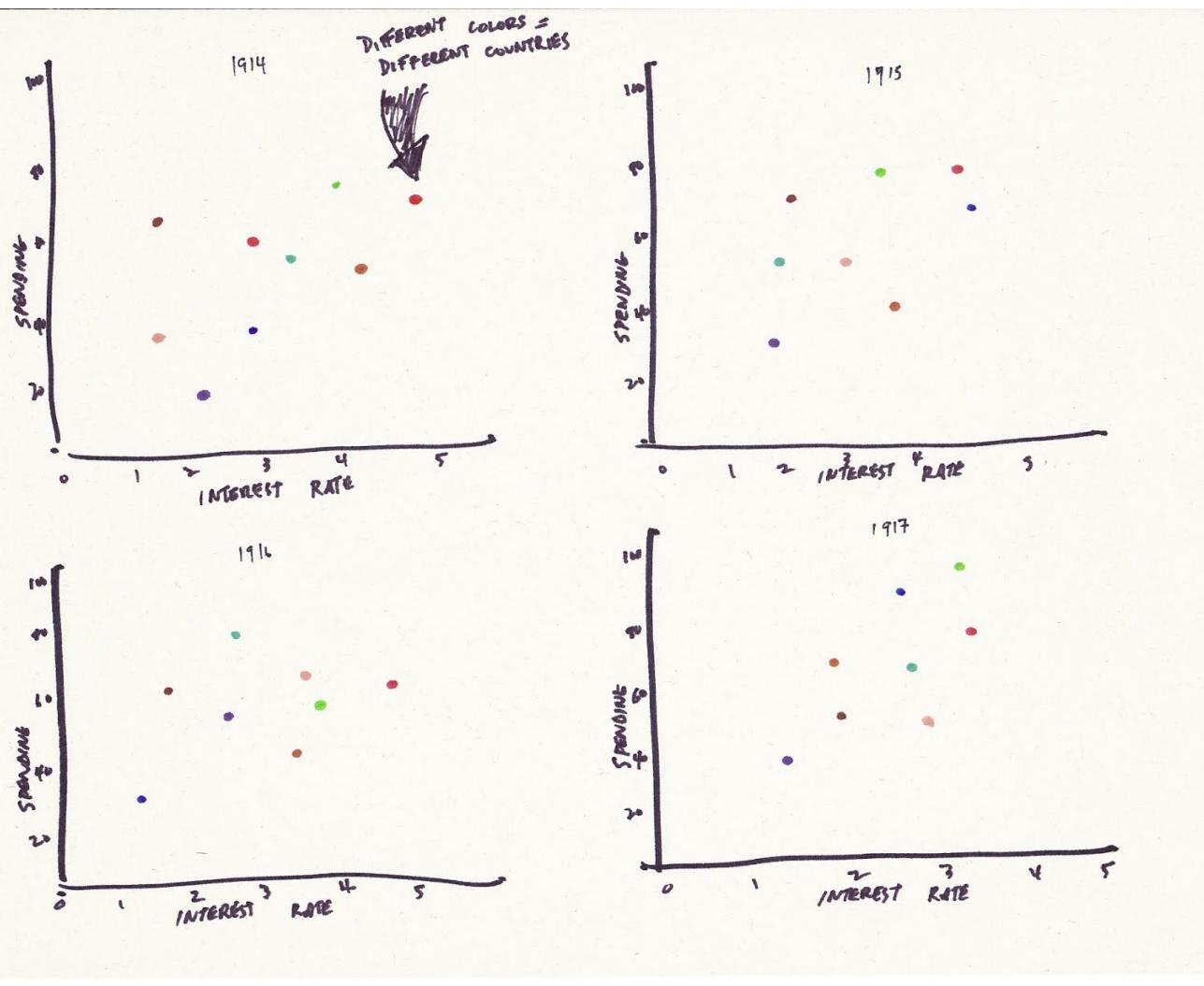


Additionally the scatter plots would be 'brushable' so that selecting data points on one would select the same data points on the other graphs. Alternative linked graphs could be similar to the

ones below:







Visualizations that we would ideally implement:

Utilizing a visualization that allows the user to move a timeline graph on the data such as this D3 example: <http://mbostock.github.com/d3/talk/20111018/area-gradient.html> would be nice.

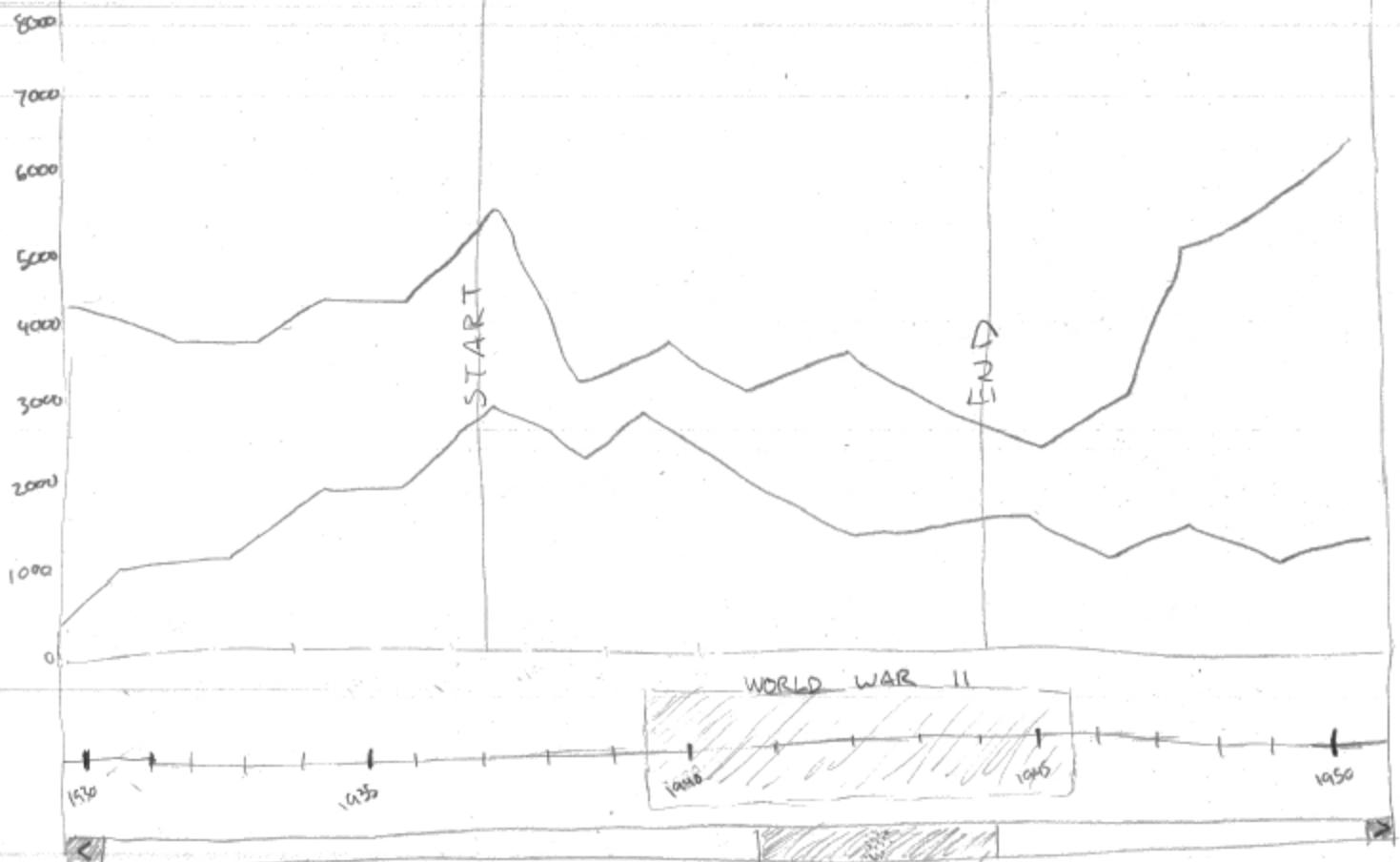
Similarly a scatter plot that allowed the user to brush and select such as the following would be ideal: <http://mbostock.github.com/d3/talk/20111116/iris-splom.html>

A timeline graph as shown below would also be a nice implementation. Once we have a firm set on our data points the best choice for our visualization should become clear.

WORLD WAR II

1 SEP 1939 - 2 SEP 1945

GDP/CAP [Y]



WORLD WAR II