**DECISION MODELS**

**IN PURSUIT OF HAPPYNESS (Team 13)**

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**Introduction**

Coming from different countries and backgrounds, the members of Team 13 were comparing the people and culture of their respective countries and were trying to gauge how content and happy their fellow citizens were. This project computes the current state of happiness of a person based on a given set of inputs and parameters and tries to help that person achieve his desired state of happiness by suggesting a series of changes on his current situation.

**Managerial Problem Definition**

How happy are you? How happy do you want to be?

**Formulation**

***Decision Variables:***

To which country should you move to and what factors should you change given the language that you can speak, the income that you earn, your marital status and your occupation?

***Objective:***

Achieve the level of happiness you desire.

***Constraints:***

Purchasing Power Parity of current and destination countries.

Language Handicap of the person who wants to move.

Unemployment Rate in current and destination countries.

GDP Growth in current and destination countries.

**Solution Methodology:**

***I. Answer the following Survey Questions:***

1. What is your home country?

2. What is your choice of language?

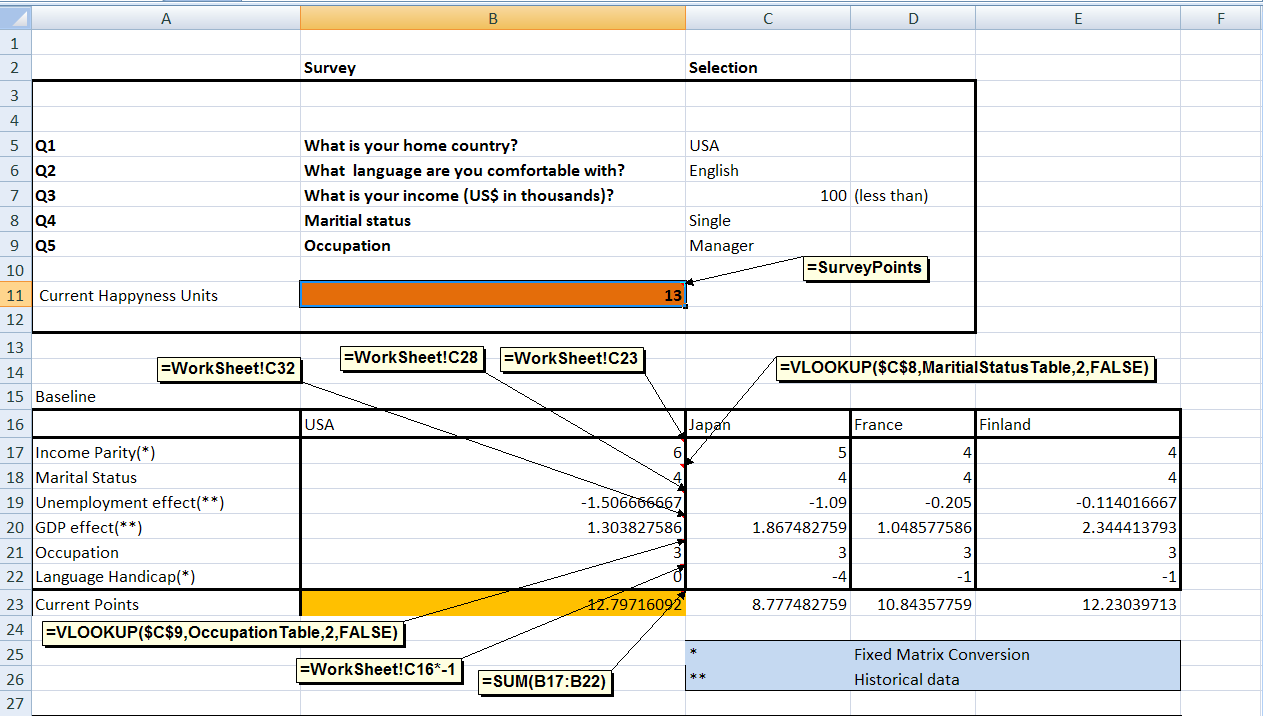
3. What is your income (in US$)?

4. What is your marital status?

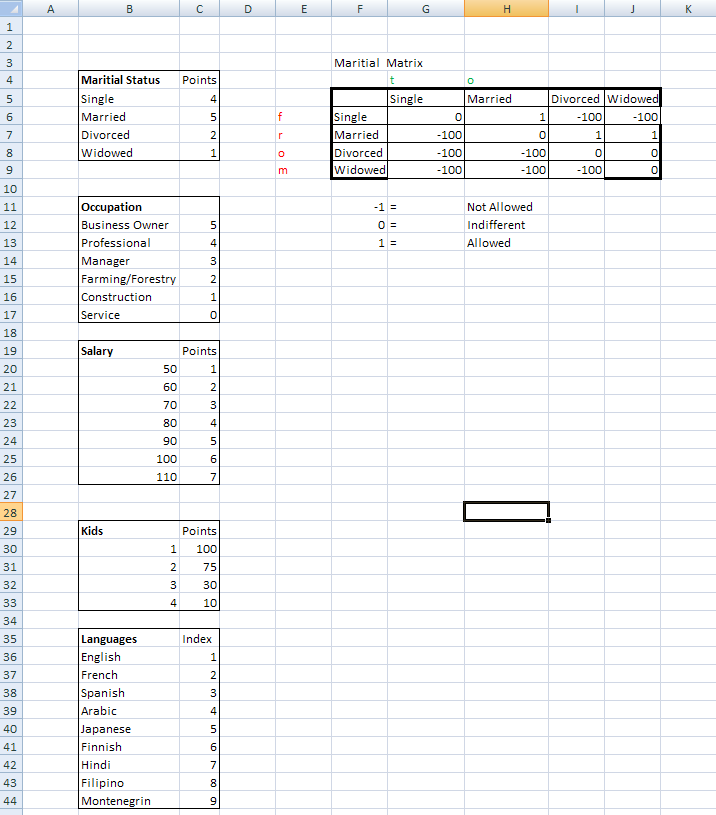
5. What is your occupation?

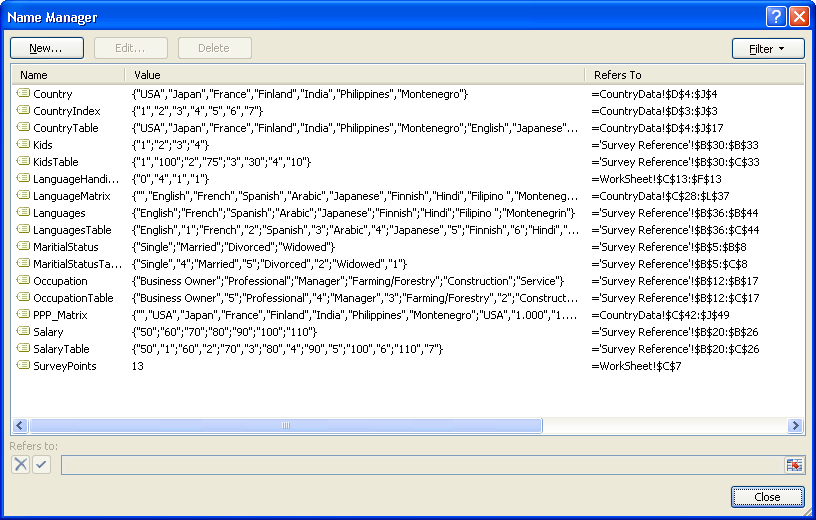
***II. Calculate the current happiness level using current data:***

Conduct the Happiness Survey using survey reference data below:

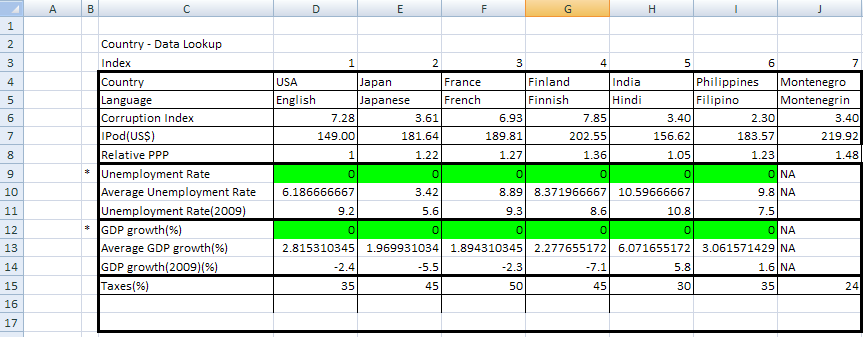


Survey Reference:

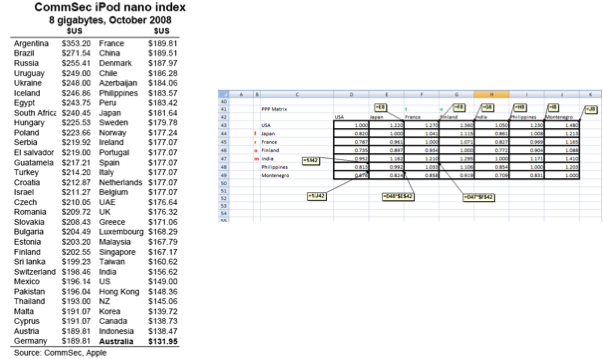




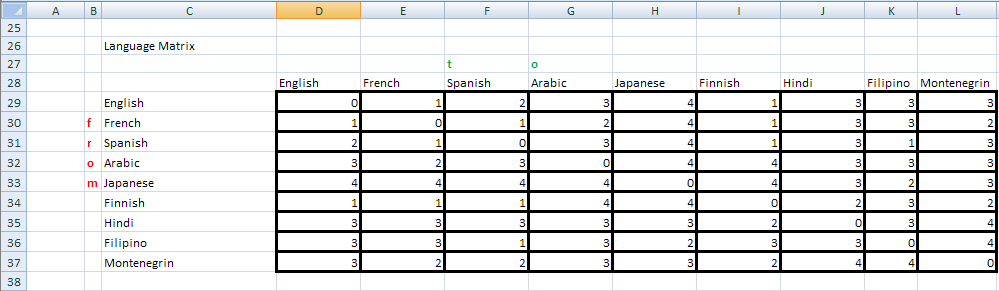
Country Data Table:



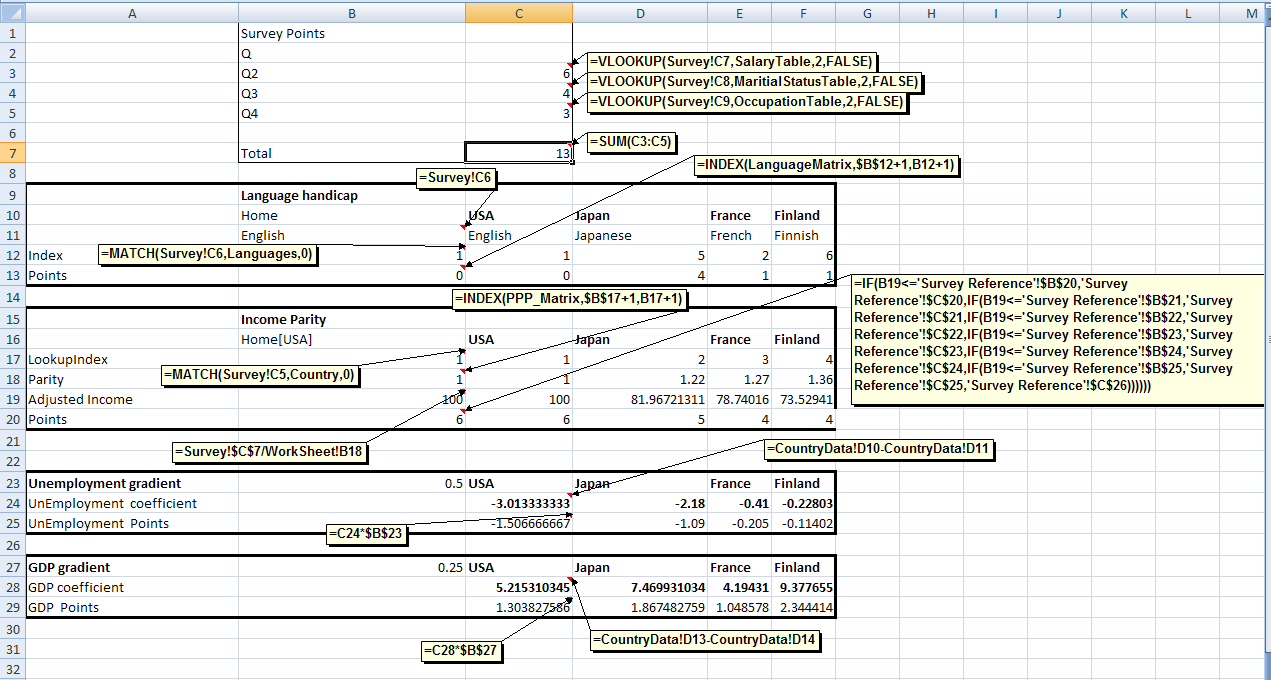
Relative PPP – Ipod Index



Language Handicap Table:

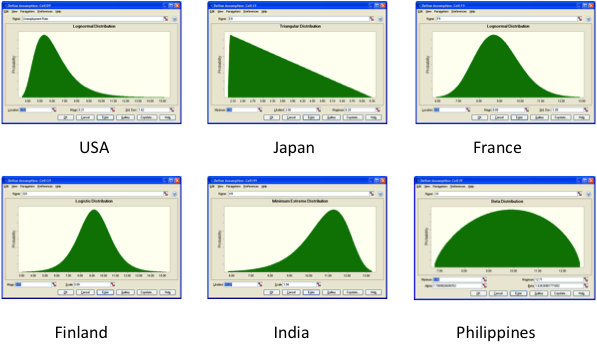


Baseline Worksheet:

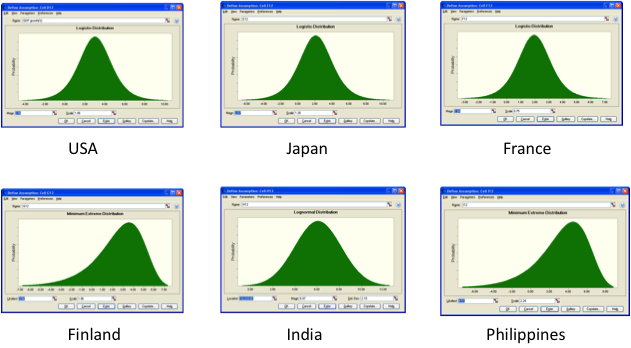


***III. Create scenarios using historical unemployment and GDP growth data:***

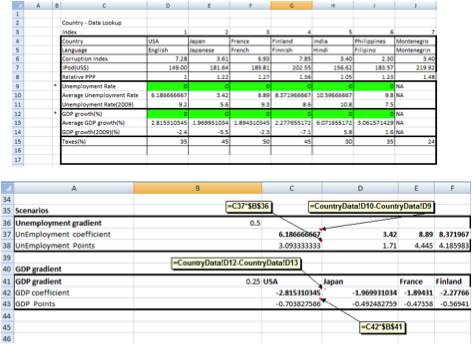
Distribution of Historical Unemployment Data:



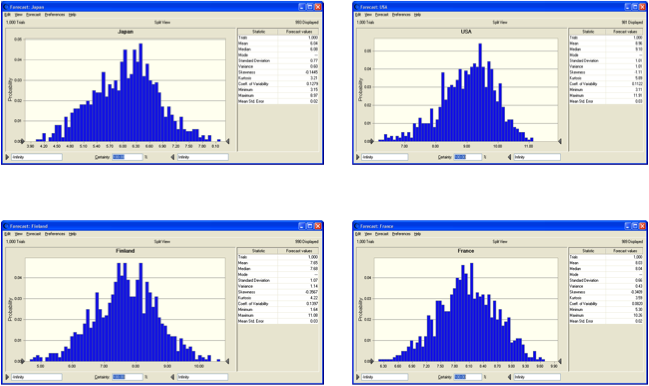
Distribution of Historical Change in GDP:



Calculate Points & Run Crystal Ball Simulation using 1000 iterations:



Simulation Results:



The team would like to reiterate that this project is just a proof of concept and subjective. There is nothing authoritative in the model since it is based on the “dismal sciences” of psychology and economics. The model was built as an example and therefore, scalable to cater to the needs of the users as deemed fit.