# 27/05/2020

Aggregating on country and phase (short)

1. Code Phase=0 if country is in restriction (1 if in relaxation).
   1. Restriction: when index is going up or staying constant
   2. Relaxation: from when it’s reduced onwards until it goes up again. Only Turkey I think was one such instance but I think it’s an anomaly
   3. Challenge: Every country might have as many restriction and relaxation periods as Oxford categories
      1. Solution 1: if we are to make our entire analysis only on one aspect of policy (combined with one dimension of Google Movement), then no worries.
      2. Solution 2: maybe we define lockdown when certain conditions are met and we register the date when the last of these conditions was met and relaxation when any of the 3 conditions was lifted.
2. Elastic net regressions to identify the right behavioural variable to be used. Risktaking very promising.
   1. Note that we might need to run elastic nets for 15 dependent variables (8-9 Oxford policies and 6-7 Google sub-categories).
   2. Include household residents
   3. Include good weather variable
3. The duration of each phase might be telling as well.
   1. Might correlate itself with behavioural measures (e.g. patience).

Aggregating on Country (long)

1. After we identify behavioural measures, sub-policies and sub-movements we can consider fancier measures (like ARDA) to calculate adherence.
2. The duration

# 28/05/2020

* The more I think about it, the more I come to realise that finding a universal criterion upon which we can binarize lockdown is really hard if not impossible.
* Perhaps a way to go about it is to go on a very micro level. Here is a strategy for looking at more disaggregated data and try to reverse engineer the external shocks we should be looking for (if this is possible). Here are the steps:
  + Let’s pick a country and quantify the daily differences in movement by taking first differences.
  + Then, let’s normalise these differences and test the days when the drop in movement was more than 2 standard deviations from the mean drop over a certain period.
  + Is there something special about these days? Was there a policy implementation? If so, what sort of policy was it?
    - Disaggregate further: do the same exercise for this country for a every Google variable.
      * Disaggregate even further: do the same exercise for every city of this country. For the UK we have daily data for 153 cities!