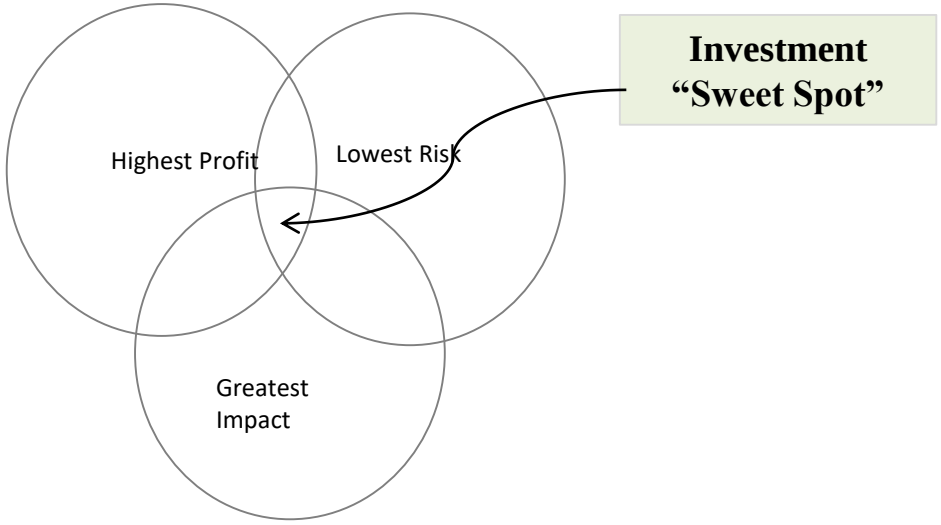
RIPE
Risk Impact Profit Evaluation System

Slide 1: Home Page

Identifying Opportunities ◆ Streamlining Due-Diligence ◆ Mitigating Risk

Adapting data analysis methodologies originally developed for advanced signal processing, RIPE identifies optimal impact investment opportunities.

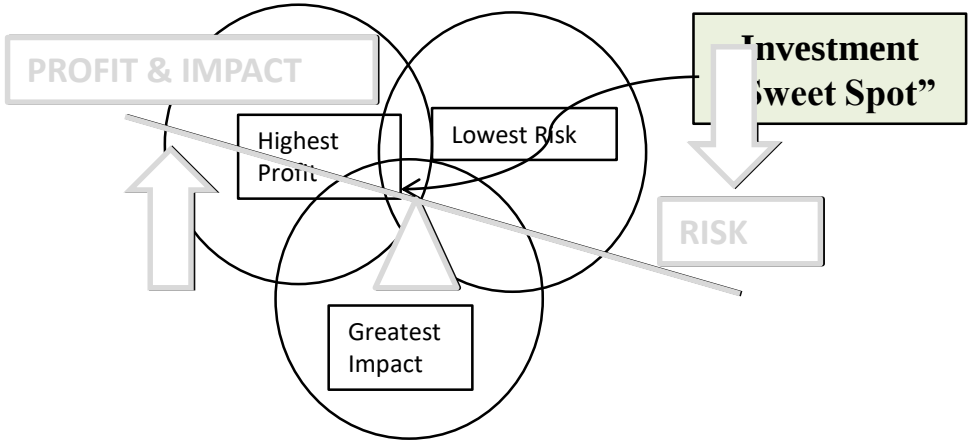


How? Using Data-to-Decision & Weak Signal Analysis to Find "Sweet Spot"

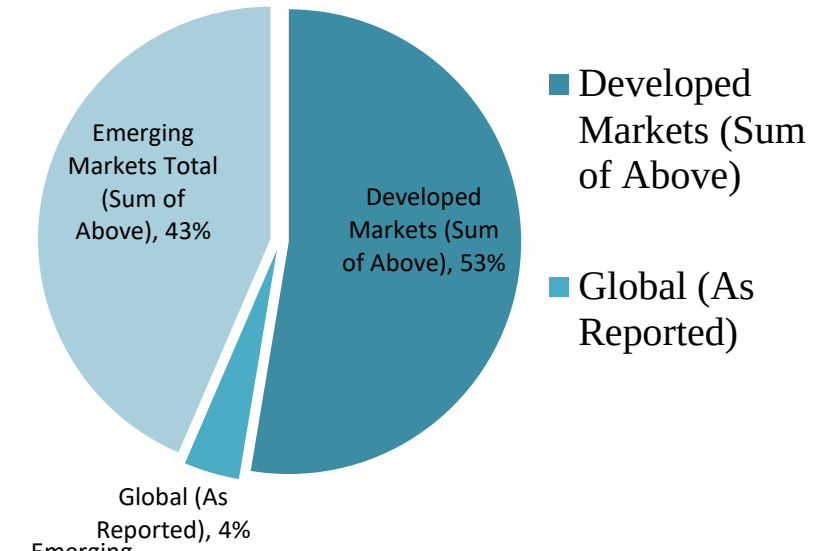
Using both geospatial and statistical analysis, RIPE objectively and quantitatively integrates hundreds of factors through both geospatial and statistical to streamline the due diligence process in determining successful business ventures. Through data fusion, RIPE can detect and amplify "weak signals" – characteristics that are not readily apparent in any single set of factors but that are predictive of highly successful impact investments.

SLIDE 2: MAXIMIZING PROFIT / FINDING SWEET SPOT

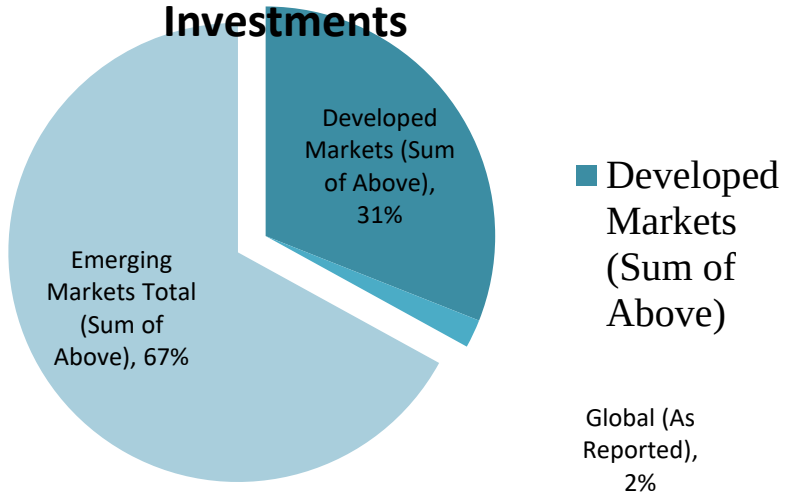
- Start ups are key to promoting economic development but hurdles are -→ assessing risk and opportunity
- We are solving this – not buying one giving one away – not donating 5% of profits to do good
- Tearing down barriers, aligning our business with goals – achievement of goals will not be a secondary priority of business – it will primary aspect



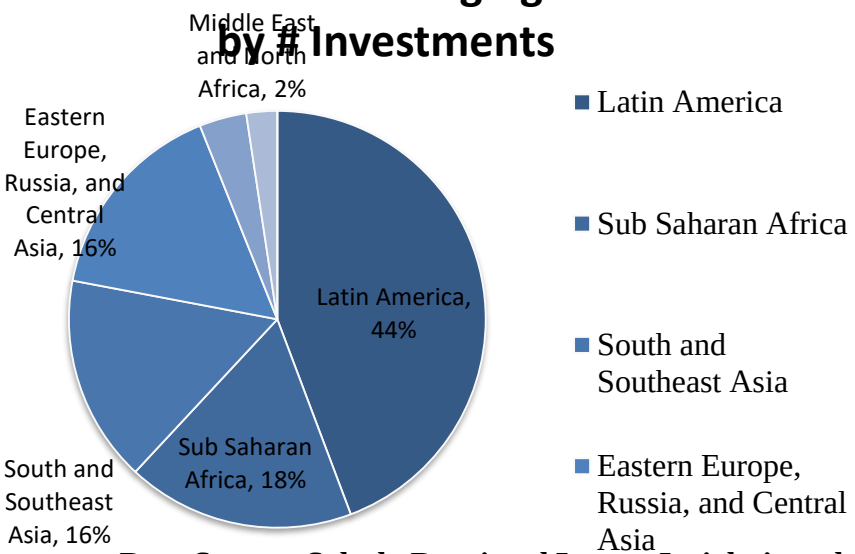
Distribution of Impact Investments by Cash Flow (USD, mm)



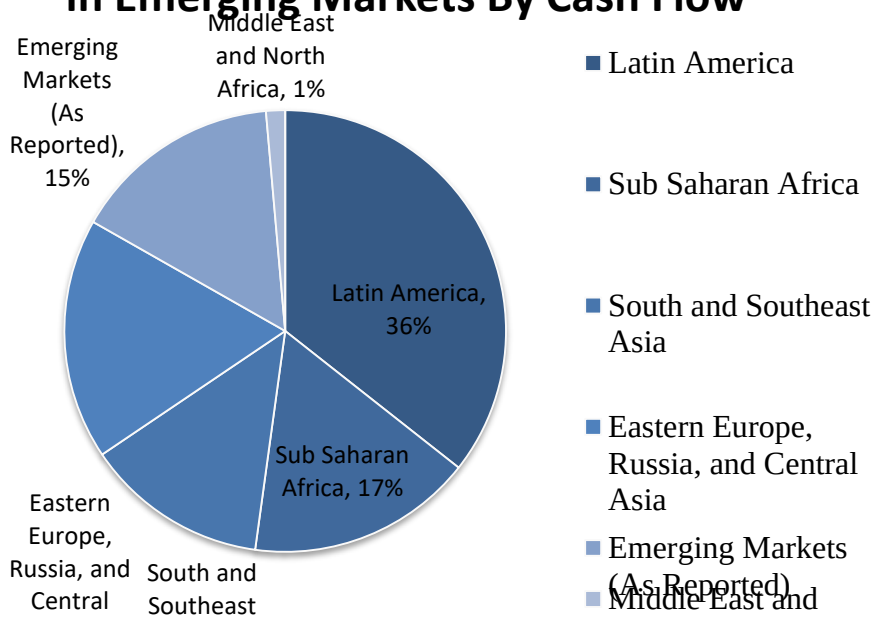
Distribution of Impact Investments by Number of Investments



Distribution of Impact Investments in Emerging Markets by # Investments

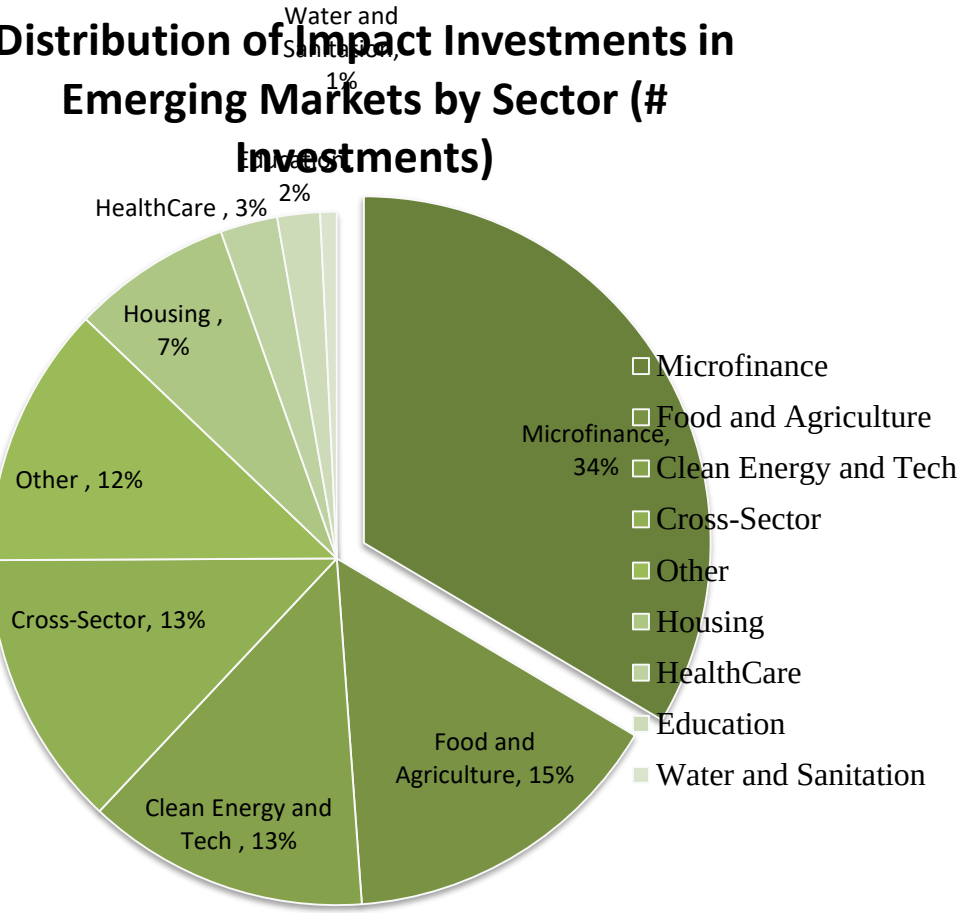


Distribution of Impact Investments in Emerging Markets By Cash Flow

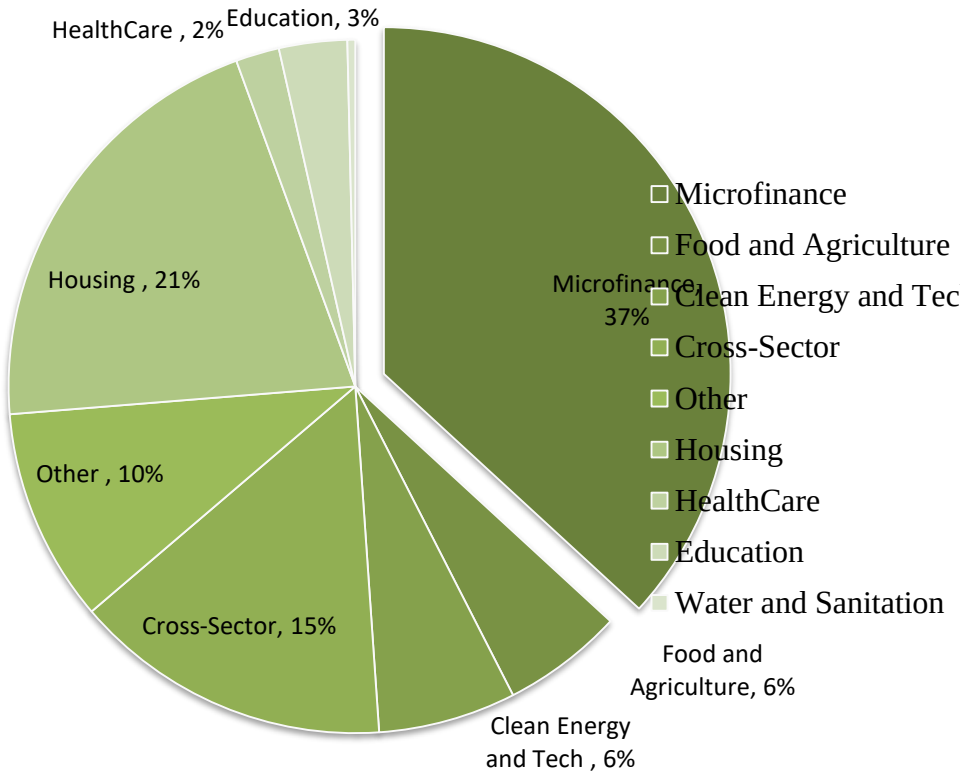


Data Source: Saltuk, Bouri and Leung, Insight into the Impact Investment Market, 2011

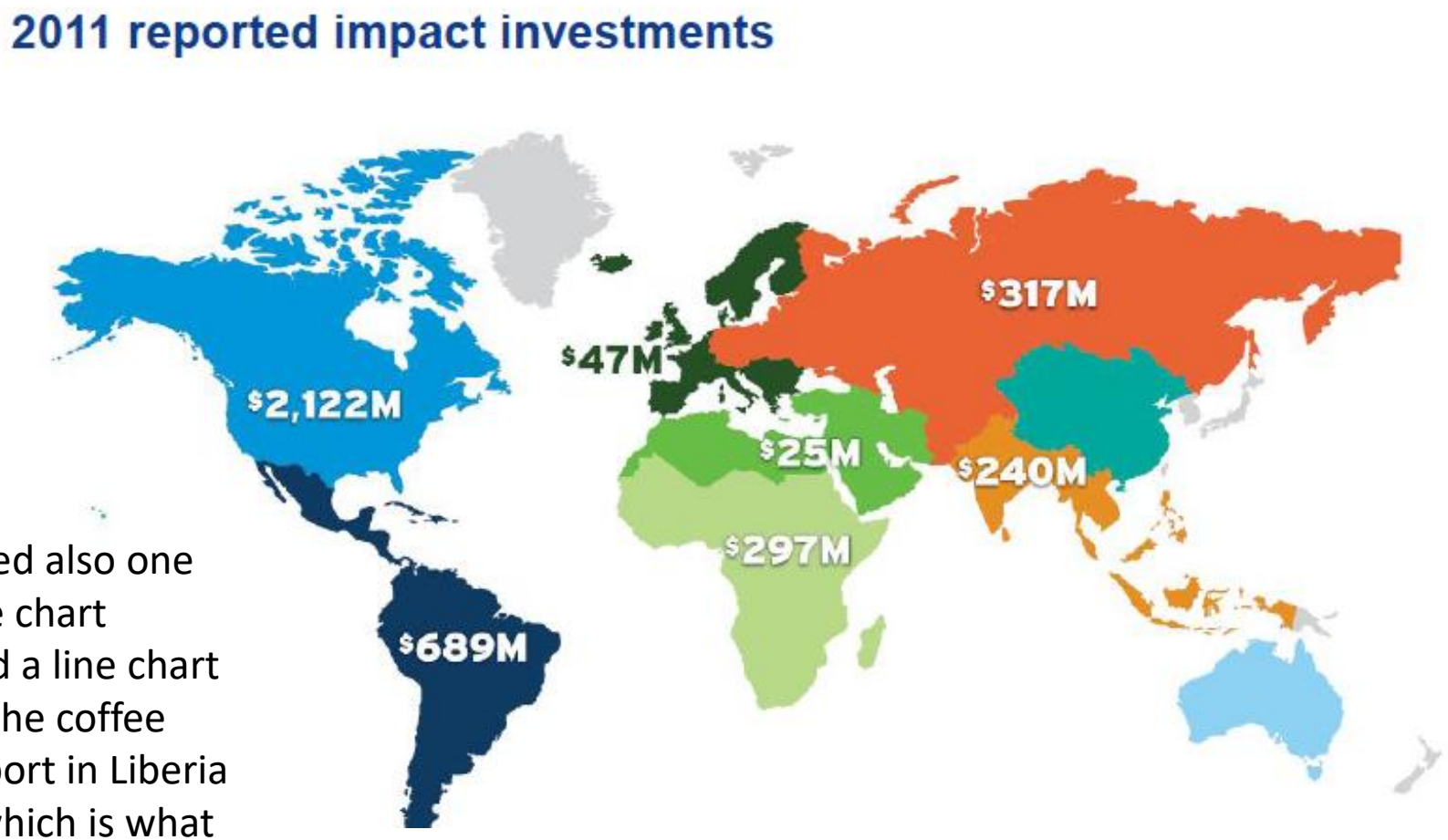
Distribution of Impact Investments in Emerging Markets by Sector (# Investments)



Distribution of Impact Investments in Emerging Markets by Sector (Cash Flow USD, mm)



Impact Investing Market: Distribution and Major Players



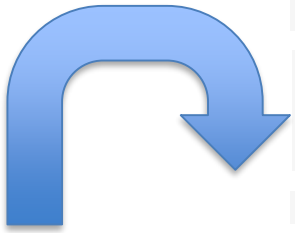
Need also one line chart
And a line chart of the coffee export in Liberia – which is what we choose to do

Source: Saltuk, Bouri and Leung, Insight into the Impact Investment Market, 2011

Slide 3: Large Schematic of Methodology: Proof of Concept

- Have pictures of small matrix – and collapsible dendrite diagram – and the GIS maps (once done) – all connected to show overall larger goal (see impact investment PowerPoint he sent)
- DRAFT of This is NEXT SLIDE

Slide illustrating Methodology



Goals

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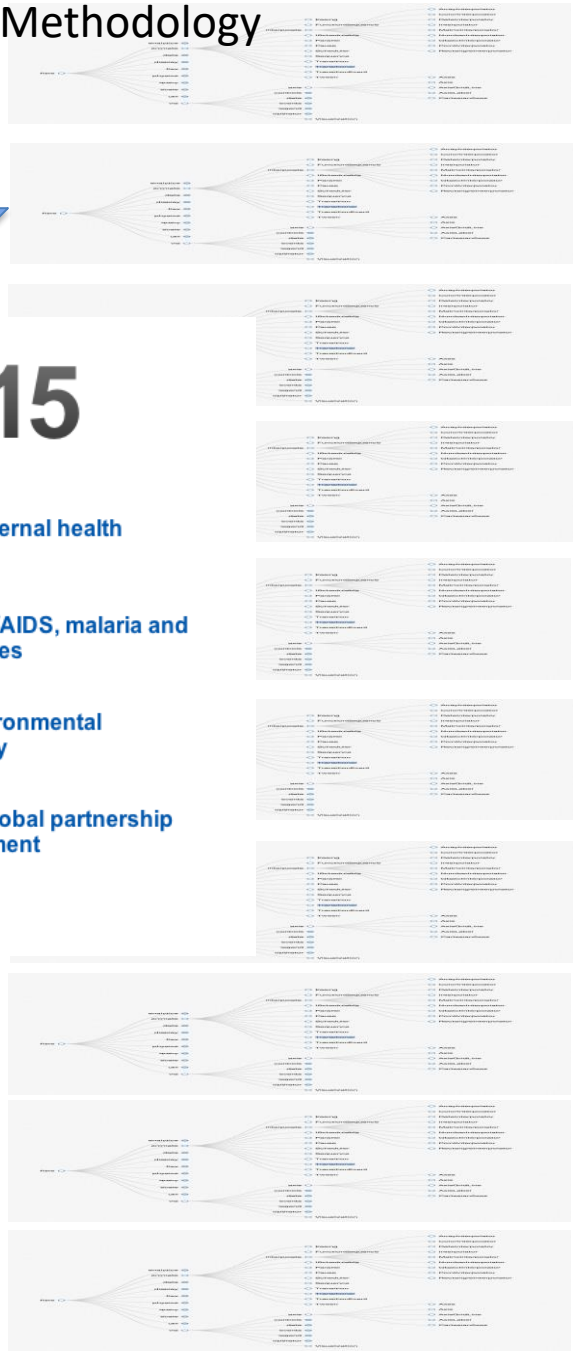
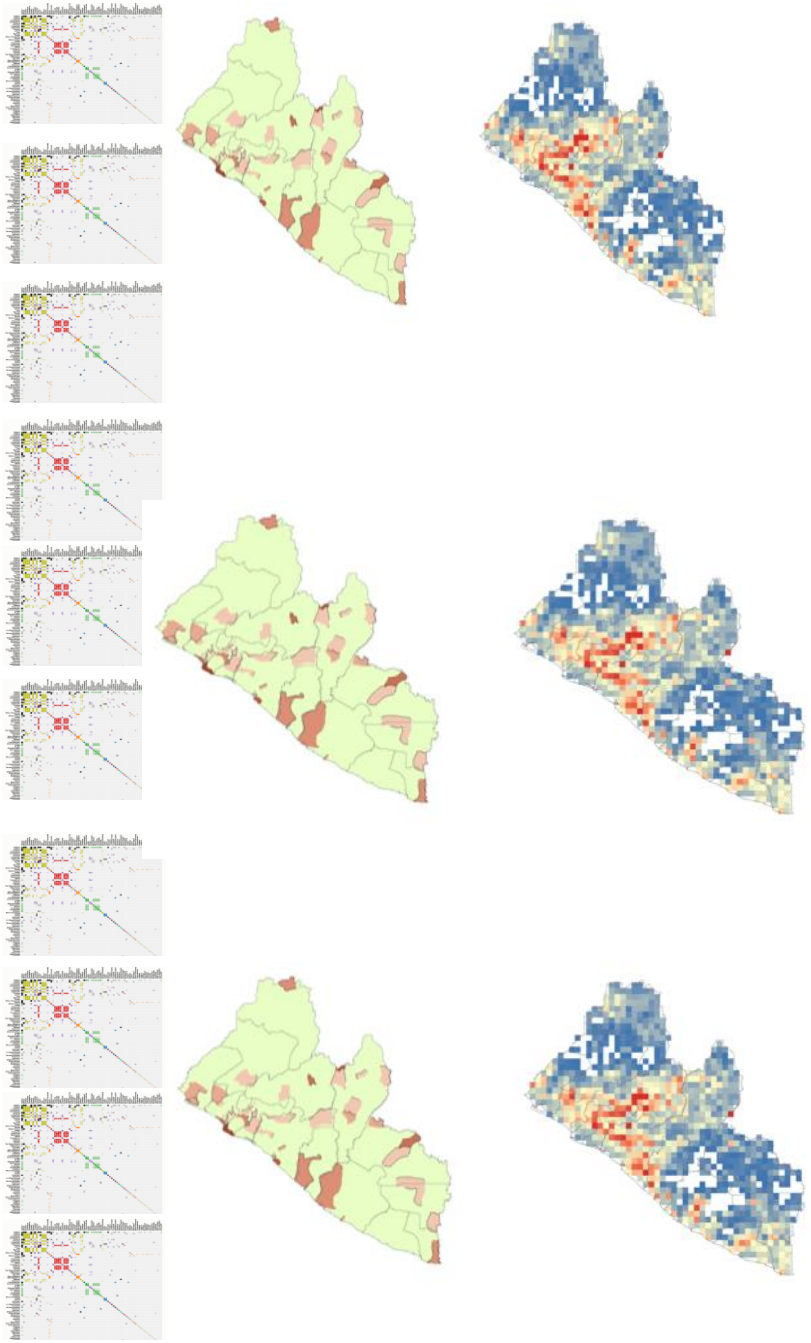
5 Improve maternal health

6 Combat HIV/AIDS, malaria and other diseases

7 Ensure environmental sustainability

8 Develop a global partnership for development





- Step 1: Optimizing IMPACT: ways to do it
- Fund Goals
- **MDG (Click on this one) – as though by chance for proof of concept**
- National Priorities: president last address, trade incentives, poverty reduction strategies
- GIIRS – all diff approaches

Look up presidents last speech and national priorities – need to do this very very carefully
And their main exports and trade

GIIRS RATINGS & ANALYTICS for Impact Investing

1st: MDG Matrix Link: Go through Each Iteration and Explain What it Means

Don't release expanded indicators yet at this point:

Conclusions of Matrix

1. From Sorted by Buckets Darkest Buckets Get Check and Worst Get an X and yellow squiggly

Indicators That Evolve from MDG Matrix

Maybe graph any of these indicators more closely for them to see the data that might be contributing to bucket trends or pick the worst one to do this for?

Eradicate extreme hunger and poverty

- *Poverty Gap Ratio*
- *Unemployment Rate*
- *Share of Poorest Quintile in National Expenditure*
- *Percentage of Pop Living Below $1/Day*

INVESTMENT OPPORTUNITIE
EFFICIENT IN REACHING DESI
GOALS

STIMULATE JOB CREATION

Promote gender equality and empower women

+

- Ratio of Girls to Boys Enrollment in Primary, Secondary, Tertiary Education
- Share of Women in Parliament
- Share of Women in Agricultural Labor Force

INCENTIVIZE EMPLOYMENT OF HIGHER PERCENTAGE OF WOMEN

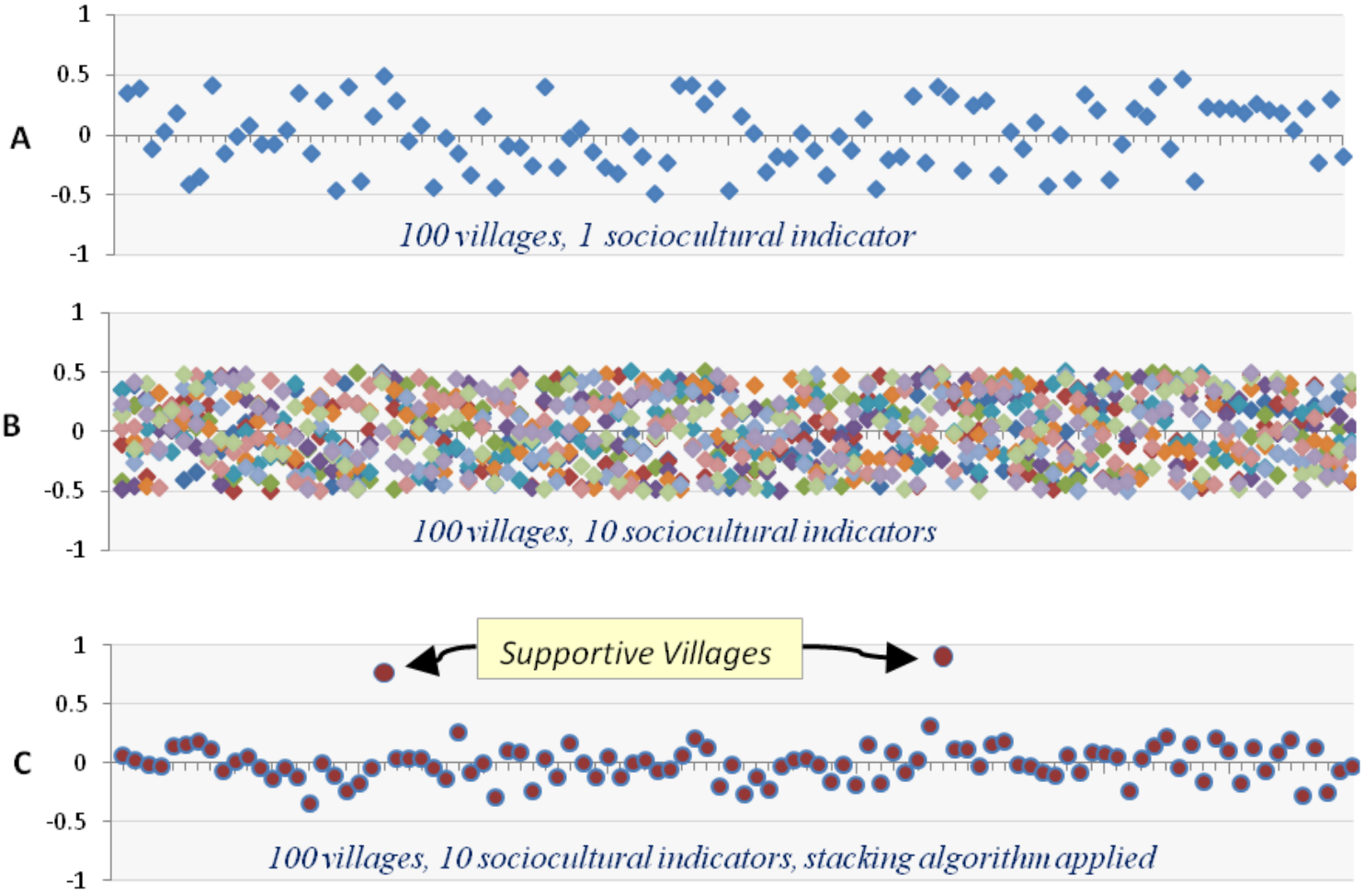
Ensure environmental sustainability

+

- HIV prevalence among Pop aged 15-24
- Proportion of Population with Advanced HIV infection with Access to Care
- Proportion of Children Under 5 with Fever Treated with Drugs
- Proportion of Children Under 5 with Insecticide Treated Bed Nets
- Incidence of Tuberculosis
- Proportion of Tuberculosis cases detected and cured under directly observed Treatments

VALUE ADDED NATURAL RESOURCES

- WEAK SIGNAL ANALYSIS;
- But that just gives us a generalized idea of what we need to consider –
- With our indicators at higher resolution (subnational level) – we will be able to perform weak signal analysis and a pu
data driven approach to determine how to reach these impact goals while maximizing profit and risk mitigation in the



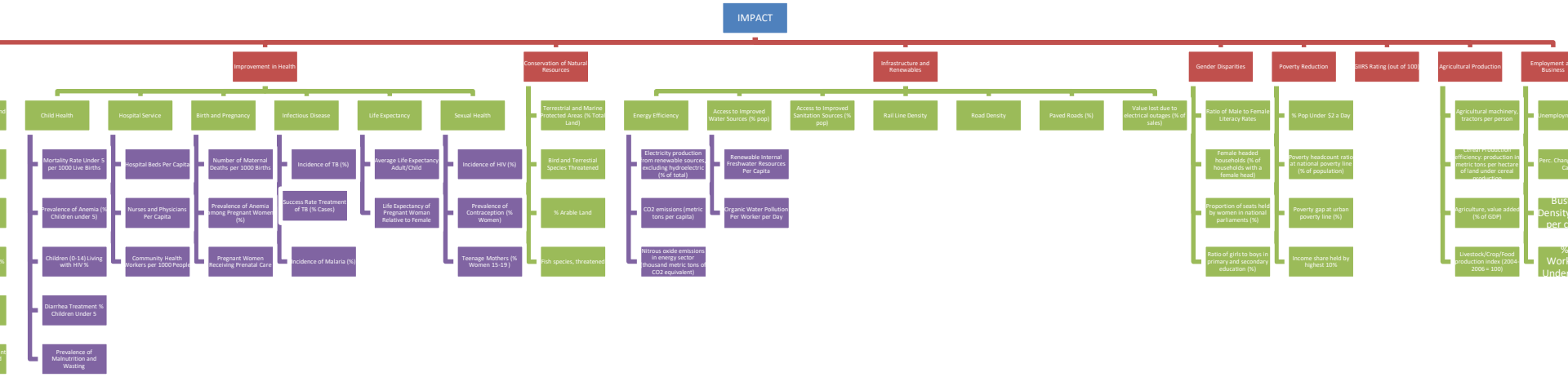
Profit Maximization:

here is where our “white” subnational indicators come into play

have a dendritic diagram with a ll the subnational indicators that we had as white in the matrix that now expand out?:

- 4 Categories:
- We have the figure already
- Becomes a GIS figure: 5 small mini maps (poster sized) iconic – go boom to a bigger map -

- Unique market advantage
- Infrastructure (web, telephone, transportation, raod access)
- Work force (pop density, unemployment rates, education of people, unemployment ?, health, age distribution)
-)
- Natural resources (land use, agriculture, GIS data set)



Step 1: Identifies Greatest IMPACT

- Conflict reduction (mostly extremism in the part bordering Mali) (political stability) (STABILITY
- Health improvement (Humanitarian) (don't release indicators yet)
- Wordl Development Indicators – could do covariance matrix – we have that on subnational level –
- See what we want as Red to come up as Red and Yellow and Green – see that they group – each one of those a diff color – Bad Dark – good Light – hope that all

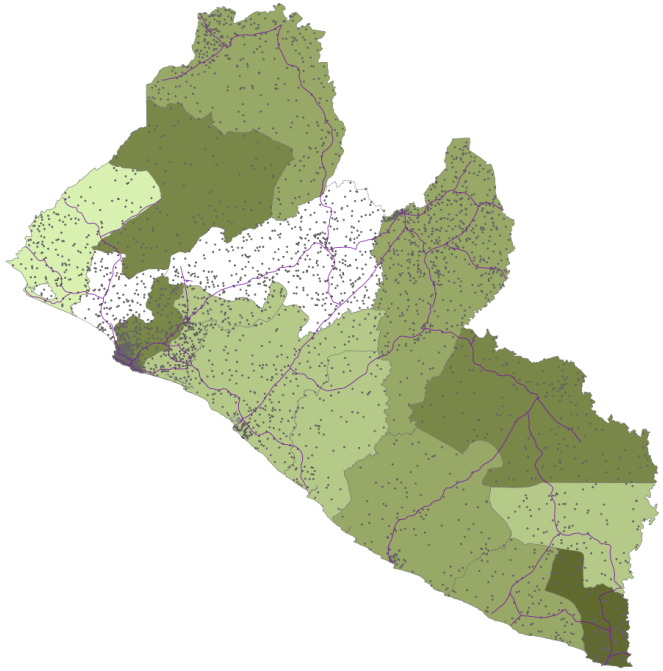
Step 2: Type of Business that would be Most Profitable to Meet Impact of Step 1: (STILL IMPACT)

- What drivers of Step 1: pull out the indicators/drivers that go into the Red:
- What are meaningful indicators that do that – correlation matrix
- Investments most effective in Achieving Impact Goals specified in Step 1:
- List all the indicators – then say: by inspection job creation need to be maximized-
- Natural resources: **tea, coffee, cotton,salt**, zinc, minerals, ecotourism, → create wealth through value added otherwise just extracted stuff
- Value added product →

- Step 3: Value Added Products: From Cotton, Salt, Tea, Coffeee: Job intensive that employs womens
- Whats the best way to make money: (HOW DO WE DERIVE THE PROFITABILITY)
- - profit: Location (nat resources and people), work force, market access, consumer base, infrastructure, incentives (national priorities) – weighting relative to - can do a weighting on all of these – weight them based on other possible locations – so its rank (GIS MAPS)

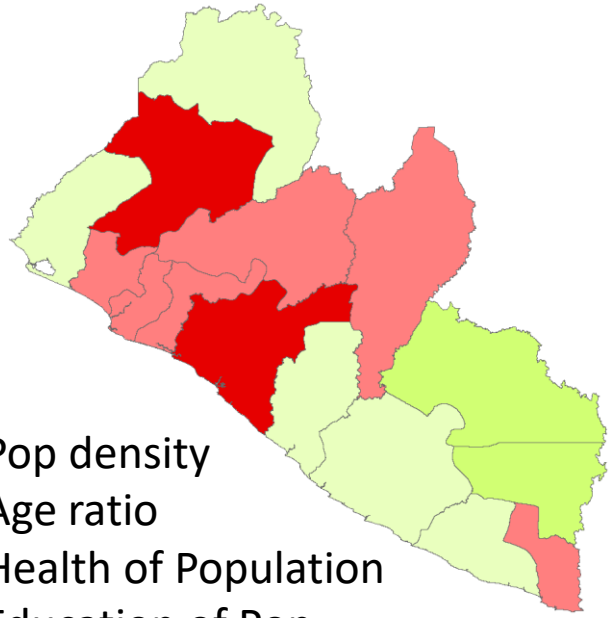
- Step 4: Risk Mitigation: Business Strategy: Pick Hot Spots However we are going to do that –
- How is each of the slides that comes up going to answer the question:
-

Basline Map Liberia



Profit Analysis

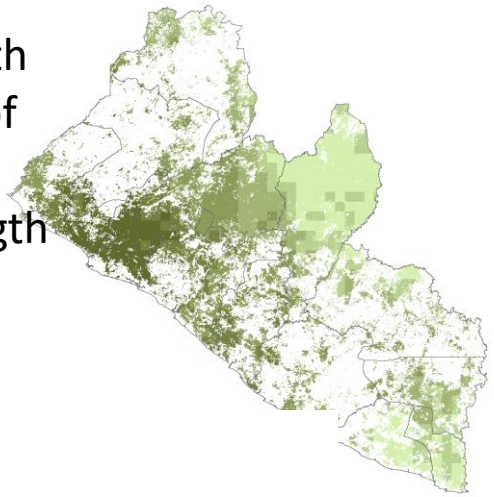
Labor Quality



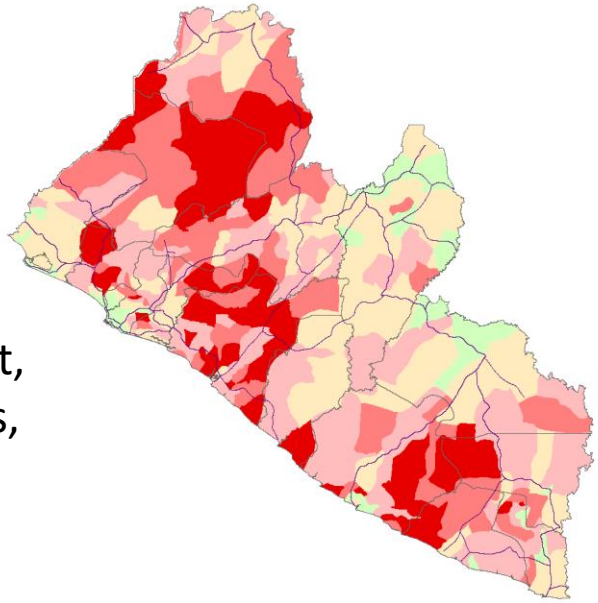
Pop density
Age ratio
Health of Population
Education of Pop
Green is Best Areas

Natural Resource Projection

Crop Land Overlaid with Projection of Growing Season Length



Market Access

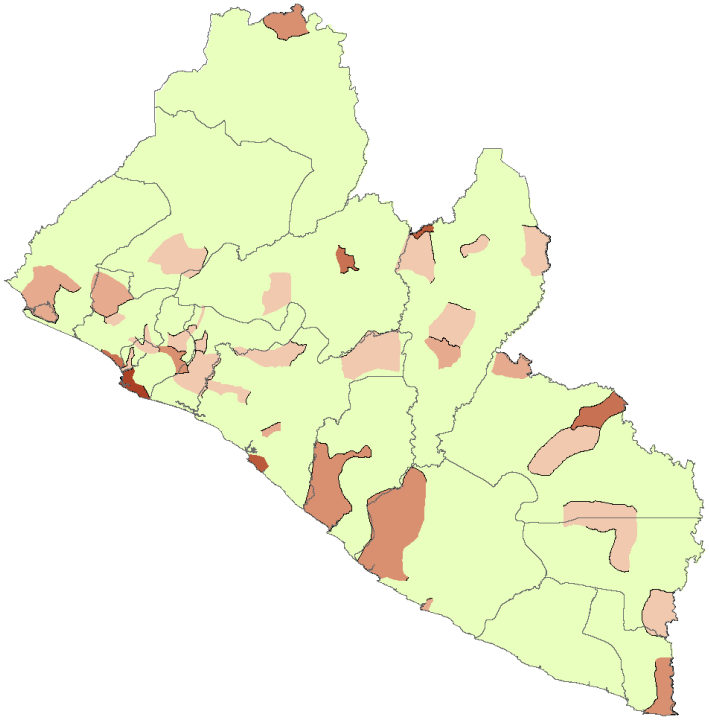


Index with Time to Nearest Port, Road Access, etc

Risk Mitigation

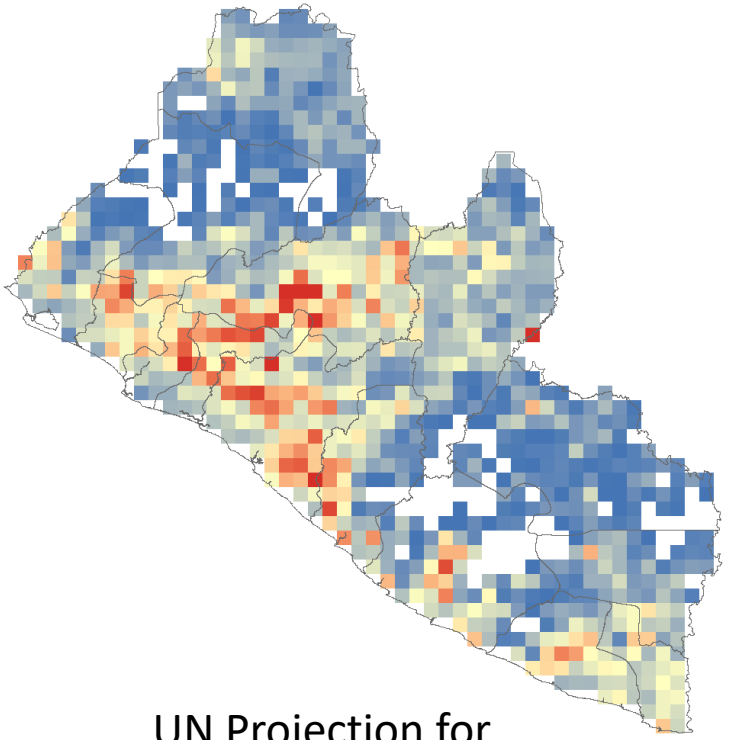
+ A map of social institutions to align with

Conflict Risk



Subnational Conflict in Last 10 Years – Red is Higher Conflict

Crop Risk



UN Projection for Climate Change and Crop Land X Draught Risk ? Idk as Nick

- Just NOTES:

- Profit/Risk Mitigation: maps SUM
- All have to be on the same sacling and same scheme so that they can be summed up each of the following maps to make one Profit Map so each map gets higher resolution to pick out hot profit hot spots:
- 1. market access (composite score from village database)
- 2. labor force : Total education enrollment rate overlayed with pop density overlayed with composite health status (from Katy's Risk Data)
- 3. Natural resources: Arable cropland (as GIS data) since we are exporting
- 4. Alignment with Existing Infrastructure Map (hospitals, universities, Sarah's Data) and add them onto the map

- Risk Mitigation: Maps: SUM each of these so that the resolution grows each time
- 1.Stability or Instability of the Region (Population displaced/refugee and population experiencing shock composite score) where darker is more stable regions
- 2. Subnational Conflict – where dark is where less conflict has occurred in the last year –
- 3.Natural Risks: Draughts or length of growing season(Darker will be where the least darught or longest growing season is) (already have the layers of conflict and natural risk on map) – the risk of conflict in a
- 4. Climate Risk – from earlier in the semester:

- Then at end Overlay the risk mitigation and the profit map to find the hotspot on where to make most impact

FINAL BANG:

- OVERLAY the profit and risk maps to find the HOT SPOTS FOR INVESTMENTS – aligned with the most efficient way to reach desired Impact:
- So overall the methodology is:
- Quantitative
- Objective
- No case studies
- Want to streamline the due diligence process to determine what investments to make