



*The graduate school of global affairs at Tufts University*



# The Hidden Structure of Global Markets

April 2026

# Agenda

## Introduction

A Quick World Tour in  
Images and Numbers

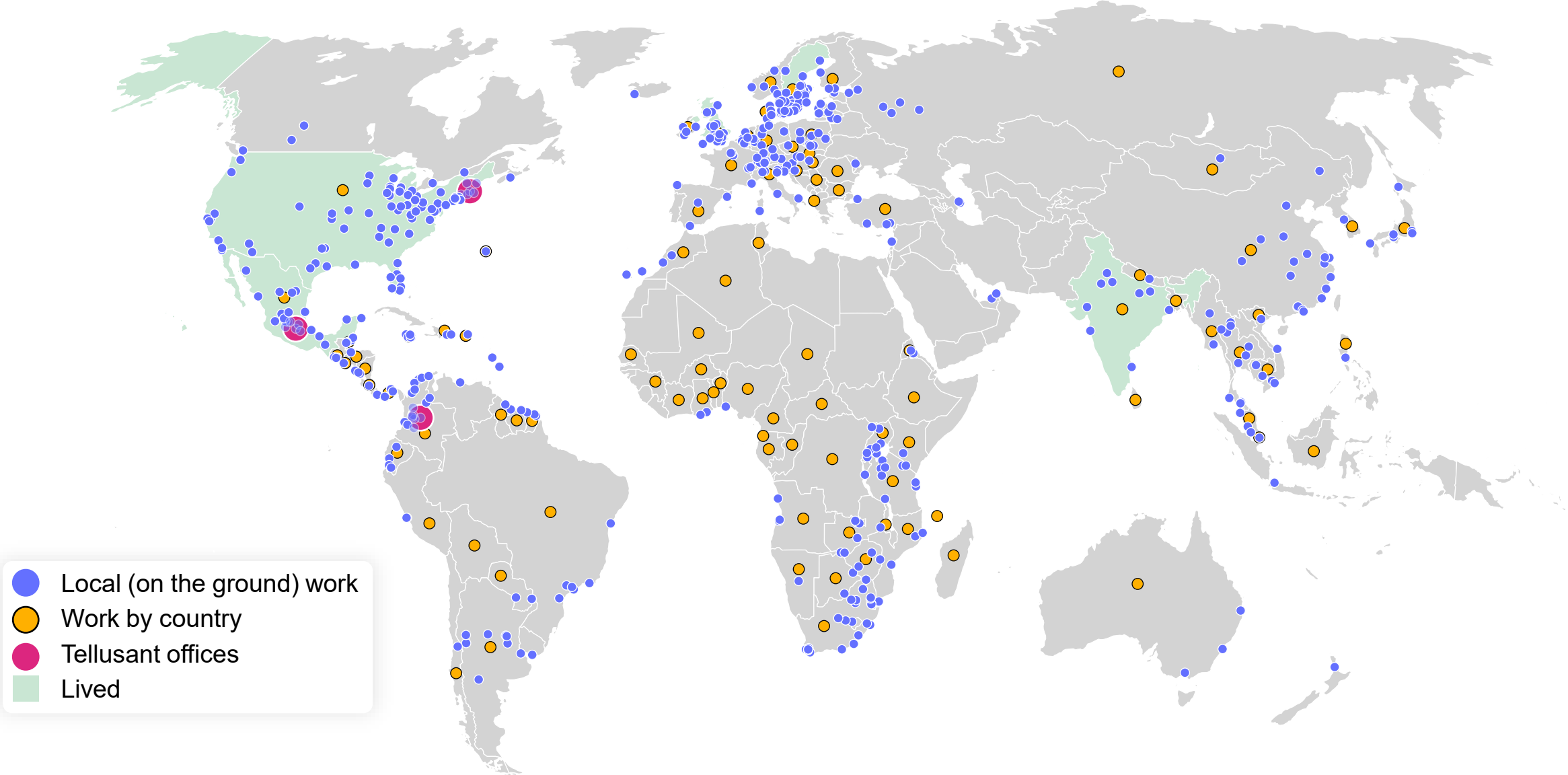
The Fletcher Competition

Appendix: Breakout  
Materials

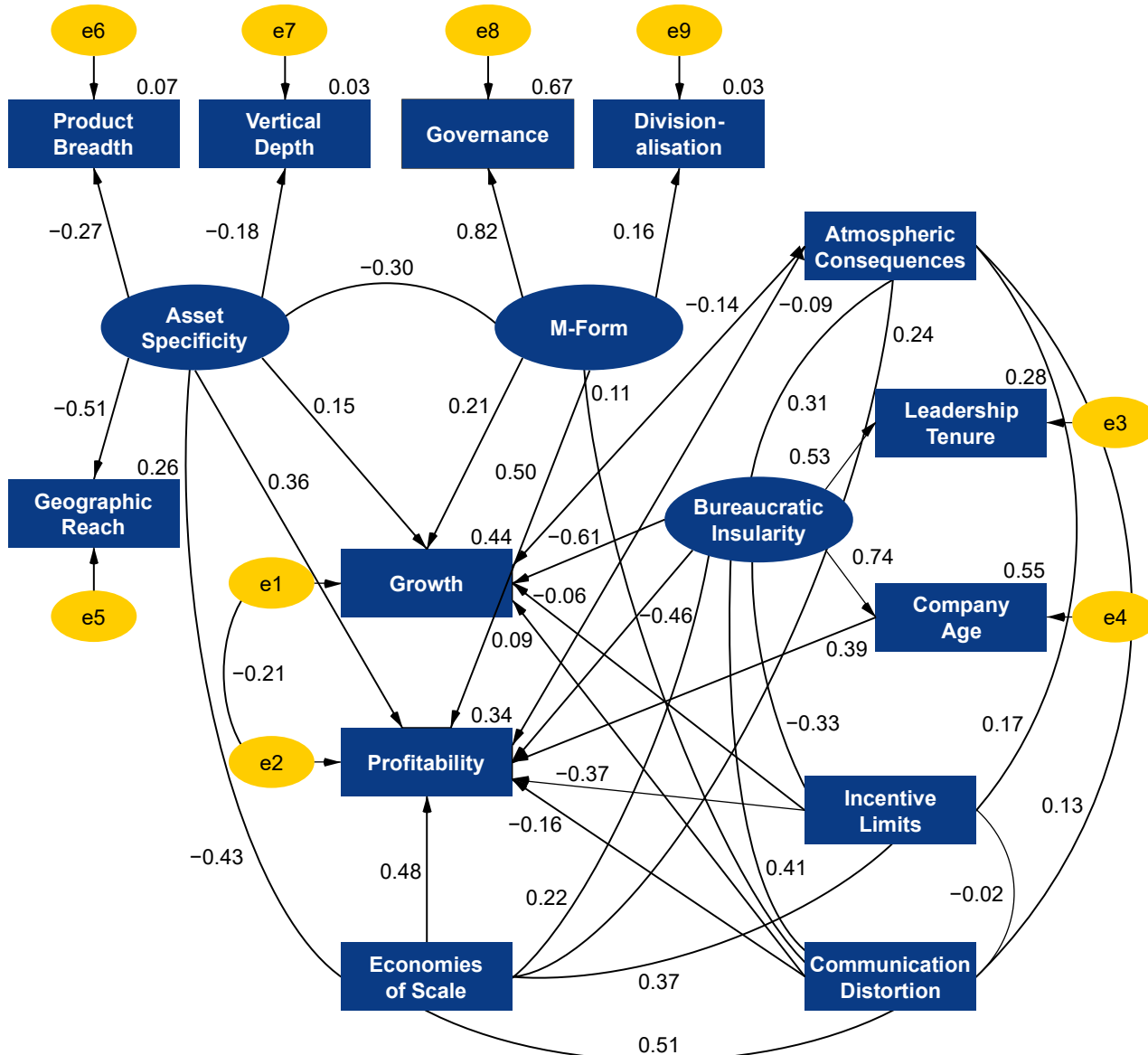




# “I’m in love with the modern world” JONATHAN RICHMAN & THE MODERN LOVERS



”Without mathematics, there's nothing you can do. Everything around you is mathematics.” SHAKUNTALA DEVI



$$\begin{bmatrix} \eta_1 \\ \eta_2 \end{bmatrix} = \begin{bmatrix} \gamma_{11} & \gamma_{12} & \gamma_{13} & \gamma_{14} & & \gamma_{16} & \gamma_{17} \\ \gamma_{21} & \gamma_{22} & \gamma_{23} & \gamma_{24} & \gamma_{25} & \gamma_{26} & \gamma_{37} \end{bmatrix} \begin{bmatrix} \xi_1 \\ \xi_2 \\ \xi_3 \\ \xi_4 \\ \xi_5 \\ \xi_6 \\ \xi_7 \end{bmatrix} + \begin{bmatrix} \zeta_1 \\ \zeta_2 \end{bmatrix}$$

$$\begin{bmatrix} X_1 \\ X_2 \\ X_3 \\ X_4 \\ X_5 \\ X_6 \\ X_7 \\ X_8 \\ X_9 \\ X_A \\ X_B \end{bmatrix} = \begin{bmatrix} 1 & & & & & & & & & & \\ & \lambda_{22}^X & & & & & & & & & \\ & \lambda_{32}^X & & & & & & & & & \\ & & 1 & & & & & & & & \\ & & & 1 & & & & & & & \\ & & & & 1 & & & & & & \\ & & & & & \lambda_{76}^X & & & & & \\ & & & & & \lambda_{86}^X & & & & & \\ & & & & & \lambda_{96}^X & & & & & \\ & & & & & & \lambda_{97}^X & & & & \\ & & & & & & \lambda_{A7}^X & & & & \\ & & & & & & \lambda_{B7}^X & & & & \end{bmatrix} \begin{bmatrix} \xi_1 \\ \xi_2 \\ \xi_3 \\ \xi_4 \\ \xi_5 \\ \xi_6 \\ \xi_7 \end{bmatrix} + \begin{bmatrix} \delta_2 \\ \delta_3 \\ \delta_7 \\ \delta_8 \\ \delta_9 \\ \delta_A \\ \delta_B \end{bmatrix}$$

$$\begin{bmatrix} Y_1 \\ Y_2 \end{bmatrix} = \begin{bmatrix} 1 & \\ & 1 \end{bmatrix} \begin{bmatrix} \eta_1 \\ \eta_2 \end{bmatrix} + \begin{bmatrix} \varepsilon_1 \\ \varepsilon_2 \end{bmatrix}$$

## Tellusant's focus



**Over 300**

strategic solutions delivered



**92 countries**

On-the-ground expertise from work in 92 countries, with work in 119 countries



**Over 100 countries**

with clients or subscribers to our solutions



**400 scientific citations**

spanning economics, health care, veterinary sciences, NGOs, governments, business, and news media

ИГ Сан

Өдөр бүр 09.00-22.00

ХҮНСНИЙ ДЭЛГҮҮР



# Agenda

Introduction

**A Quick World Tour in  
Images and Numbers**

The Fletcher Competition

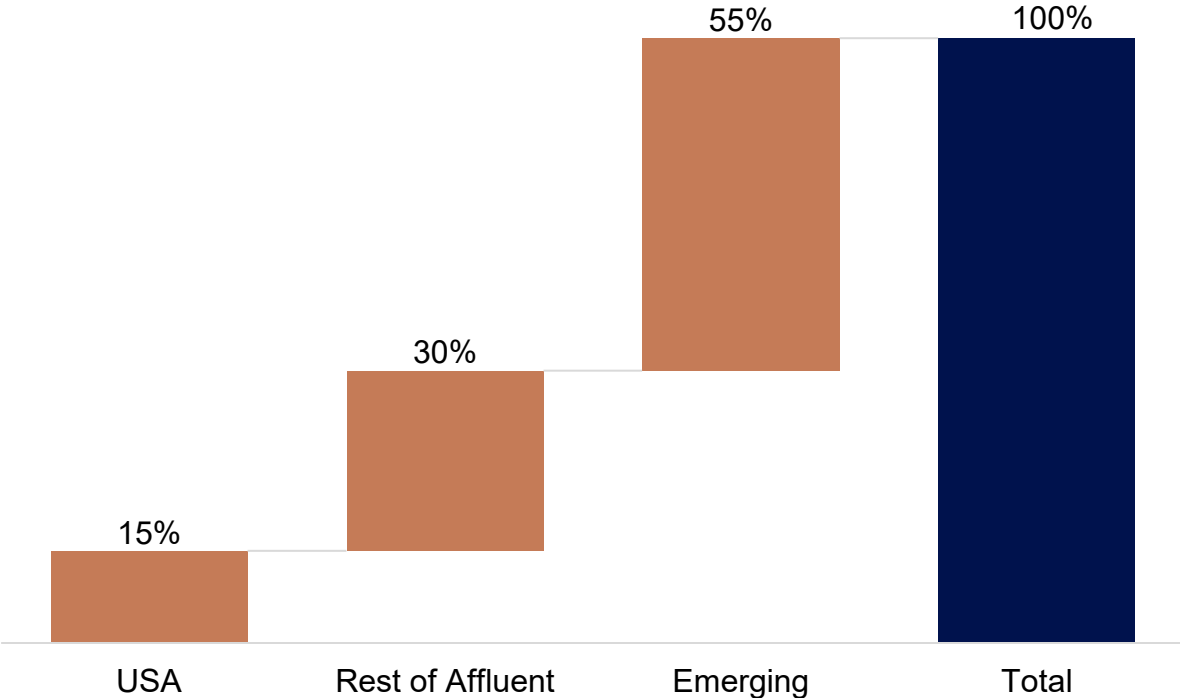
Appendix: Breakout  
Materials



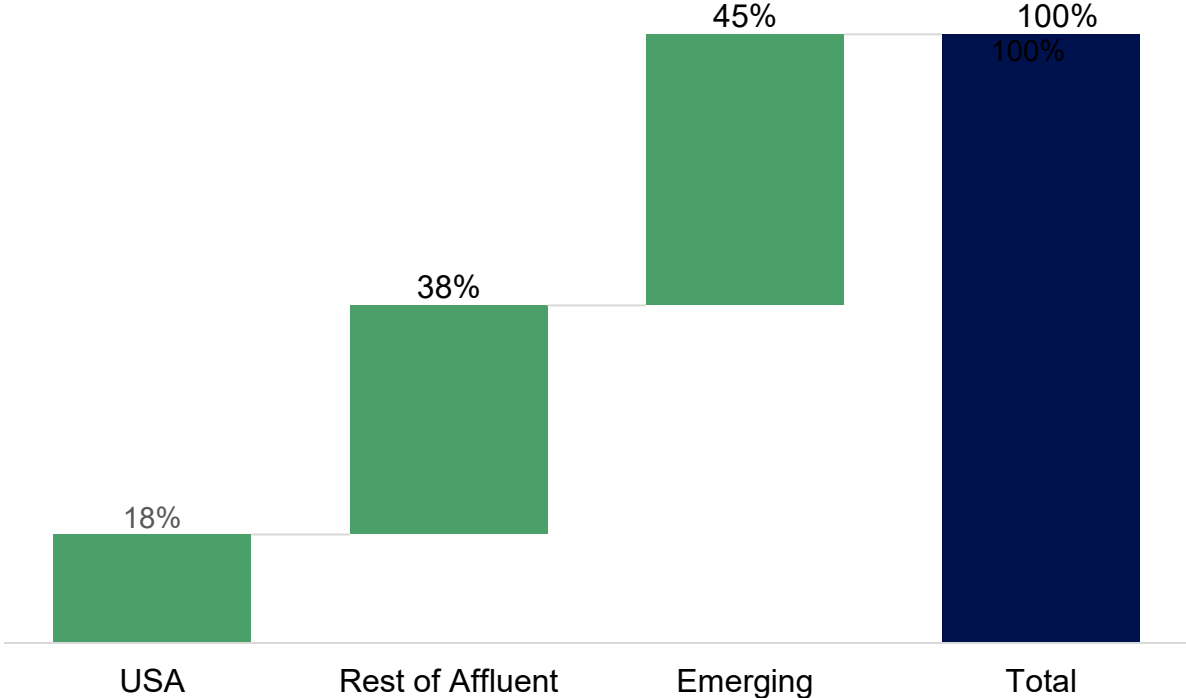


# Why? The U.S. is an important, yet small, part of the world economy

**U.S. SHARE OF GLOBAL GDP**  
PPP\$, constant 2015 values

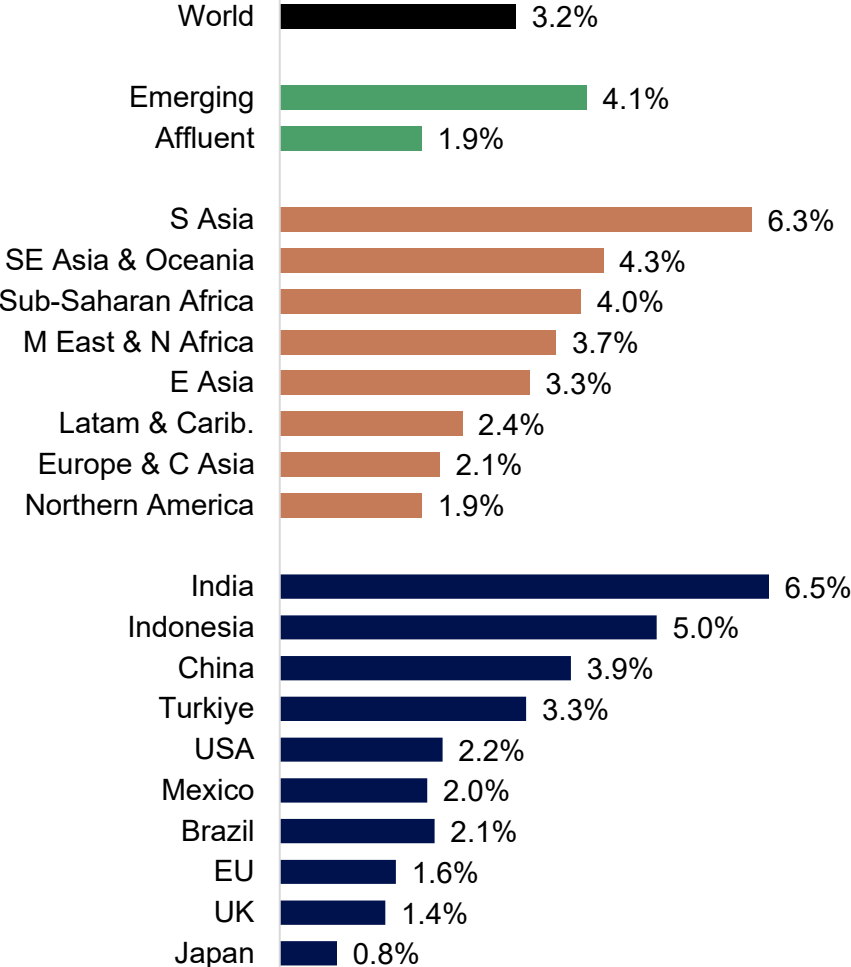


**U.S. SHARE OF GLOBAL MIDDLE CLASS AND ABOVE**



# Why? Growth is high in most parts of the world

**GLOBAL ECONOMIC GROWTH**  
GDP growth per annum 2024-2029



**The major headwind in affluent countries is demographic: declining and aging populations**

**It is largely not an economic issue**

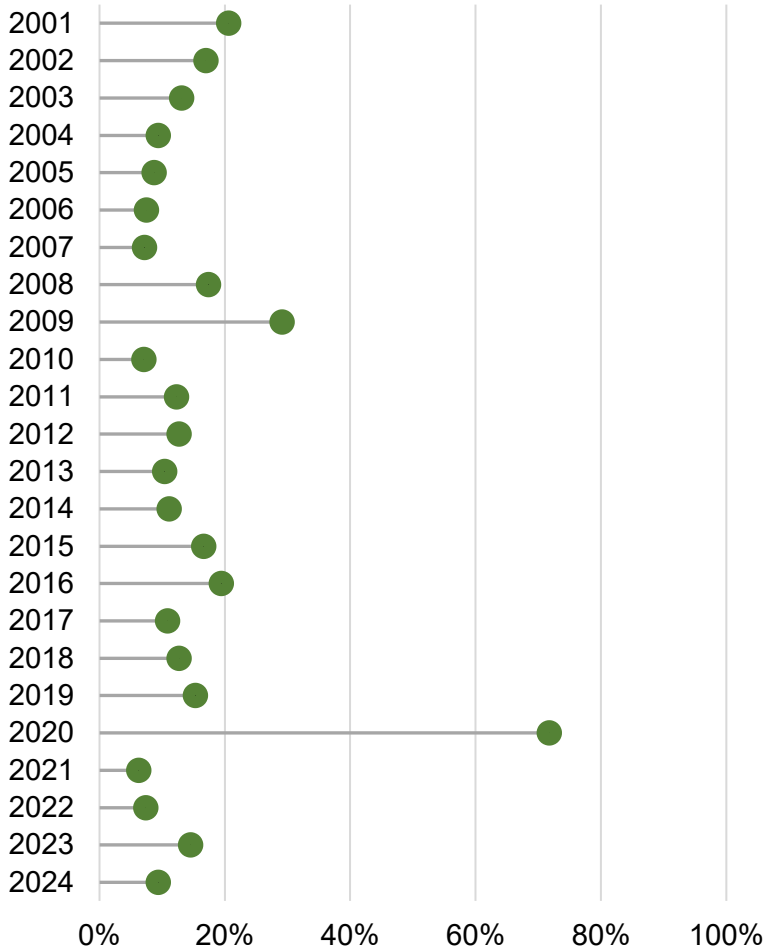
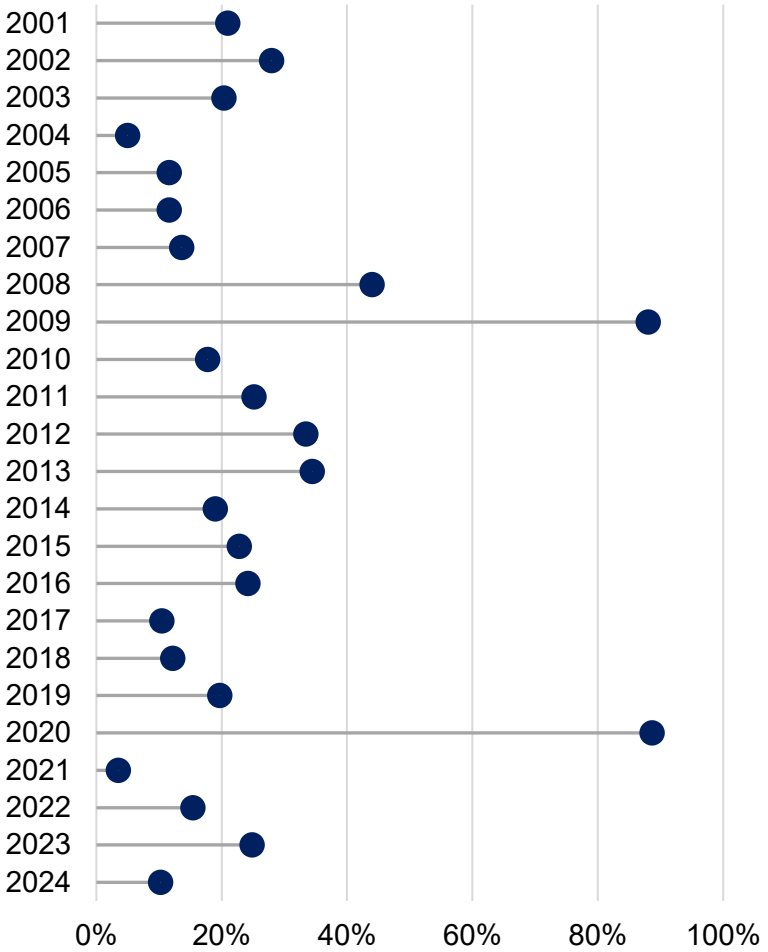
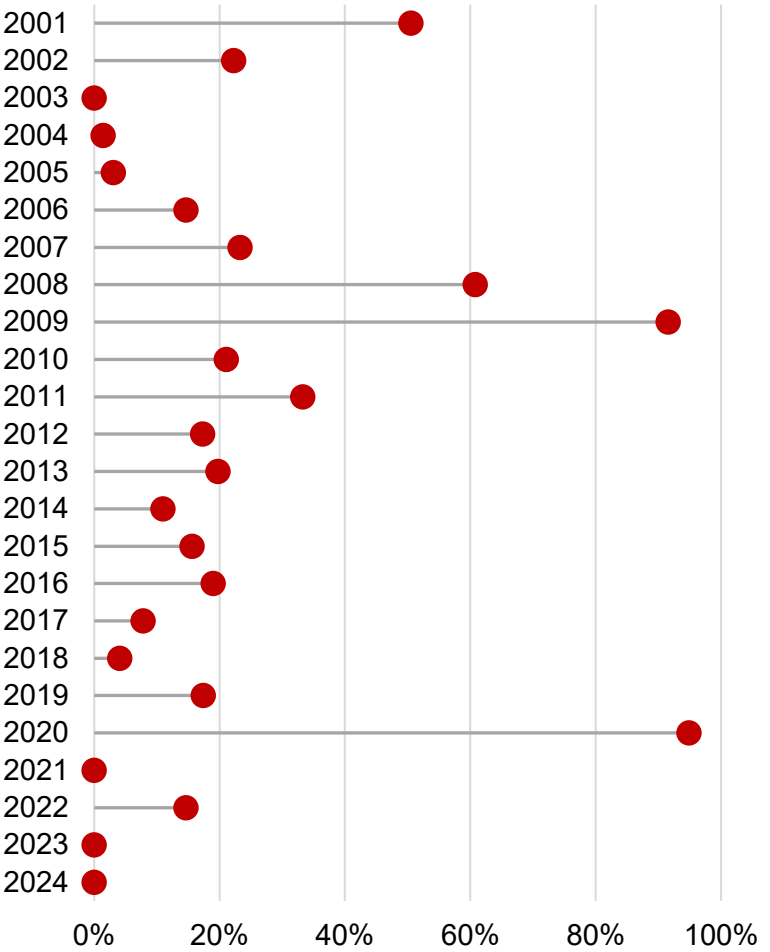
# Why? Working outside the U.S. in emerging countries also reduces risk

## SHARE OF POPULATION IN RECESSION

**United States**  
Average = 22%

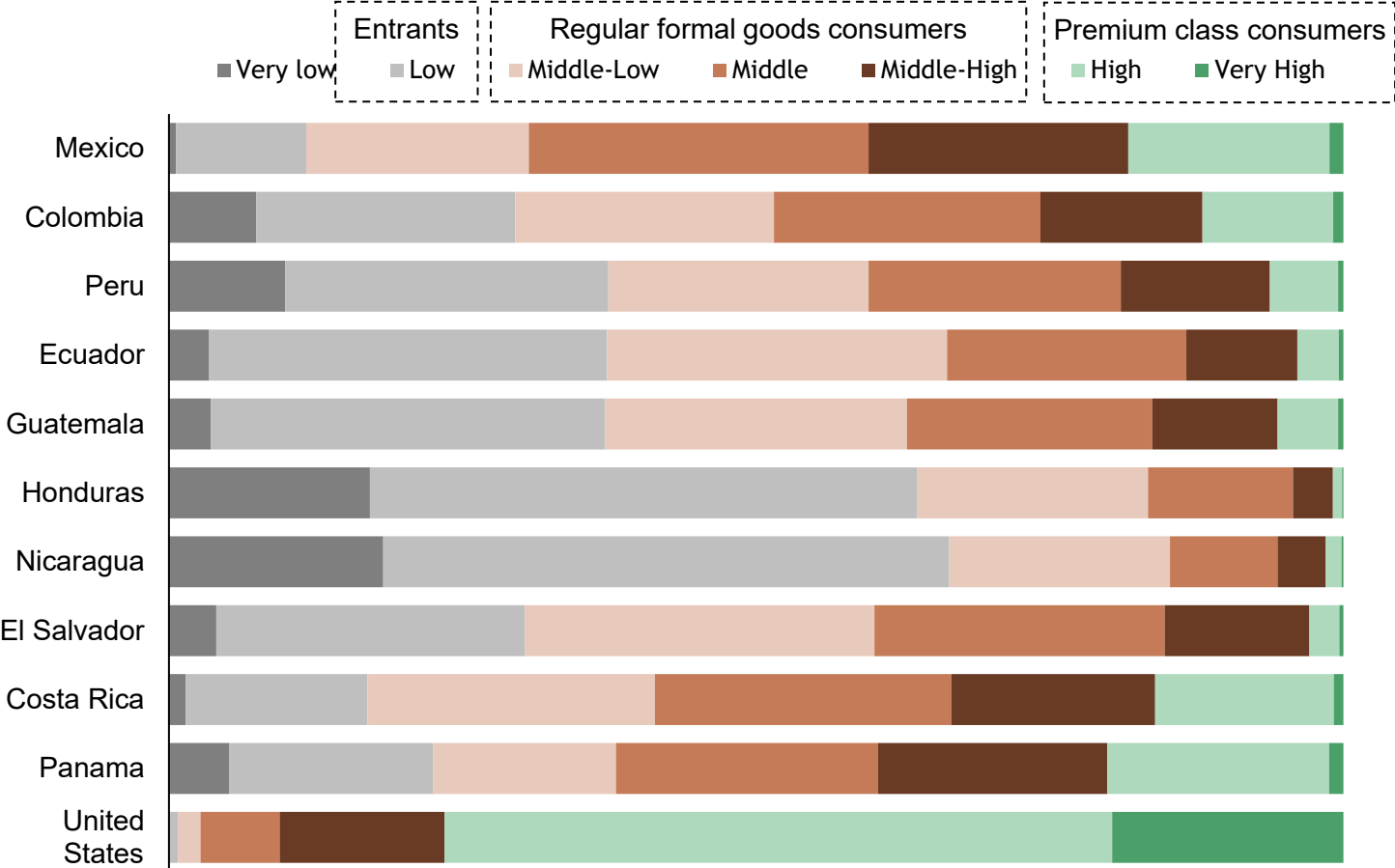
**Other Affluent Countries**  
Average = 25%

**Emerging Countries**  
Average = 15%



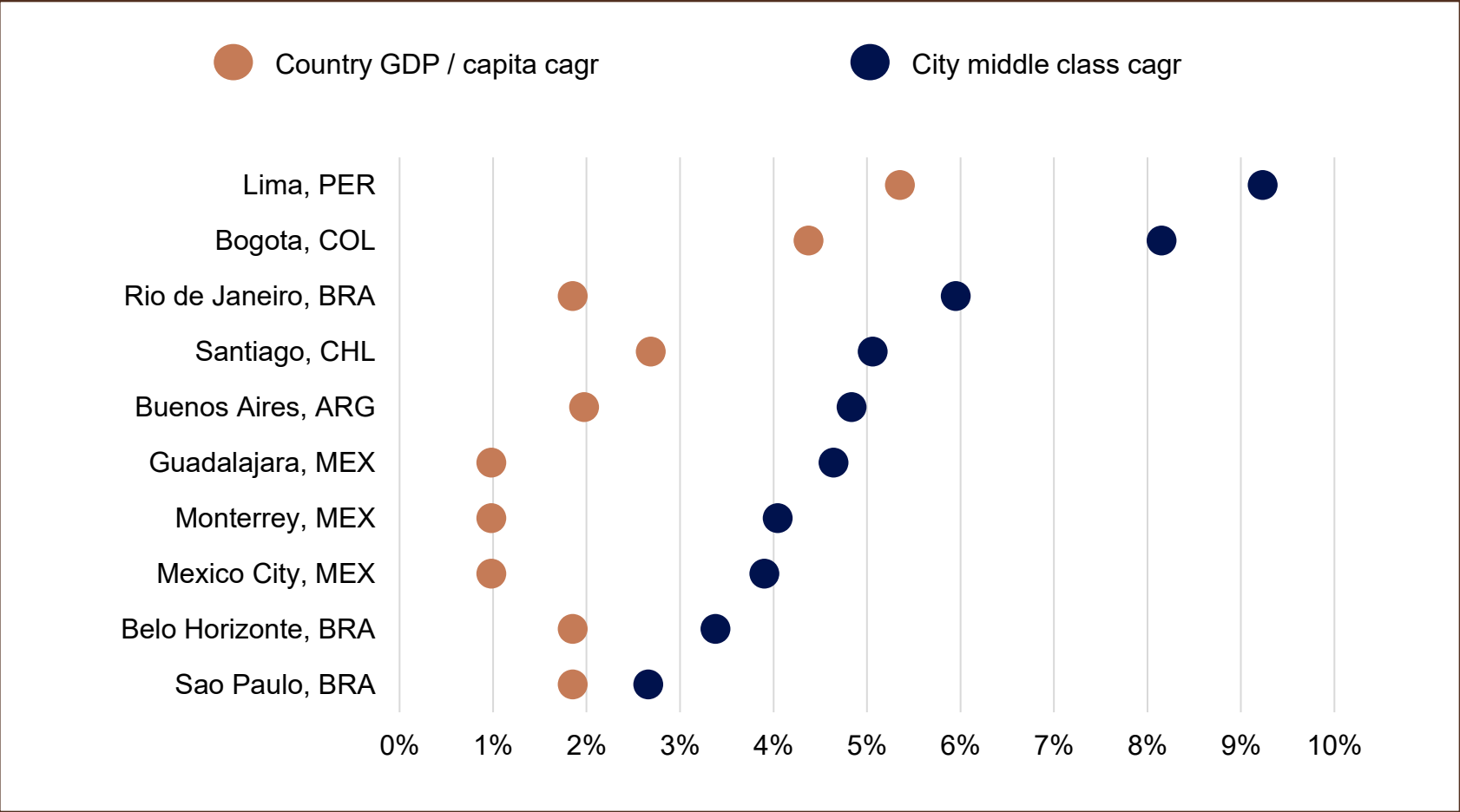
# Where? The size of consumer classes is the right metric to understand opportunity

**CONSUMER CLASSES BY COUNTRY**  
 Percentage of total population, 2023

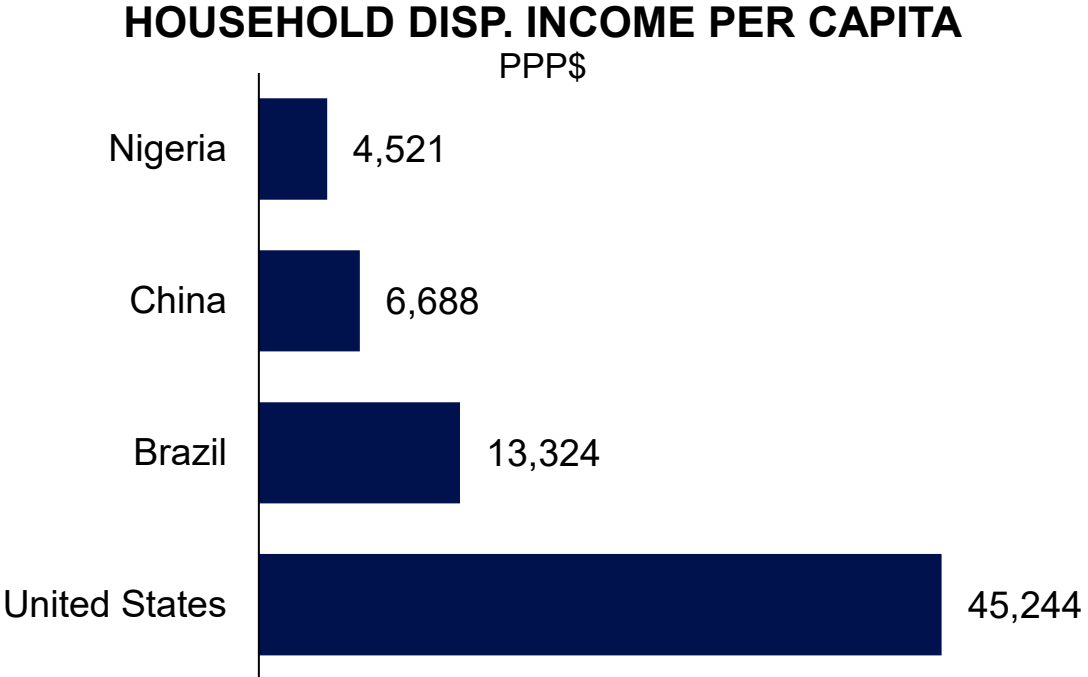
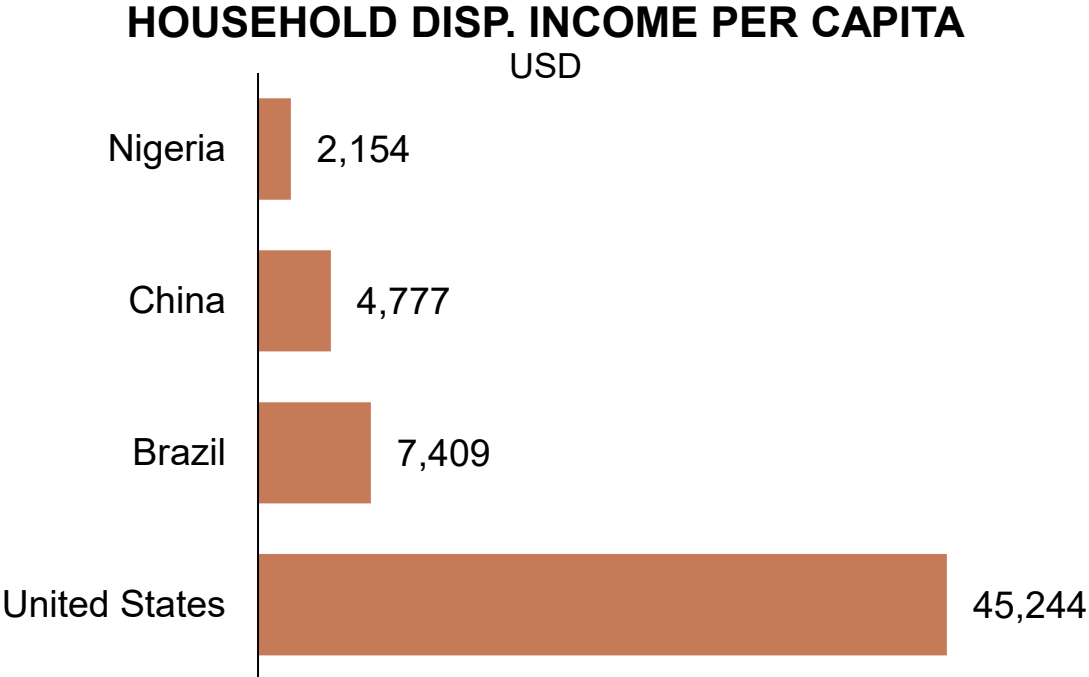


# Where? Keep in mind that cities always outperform the country

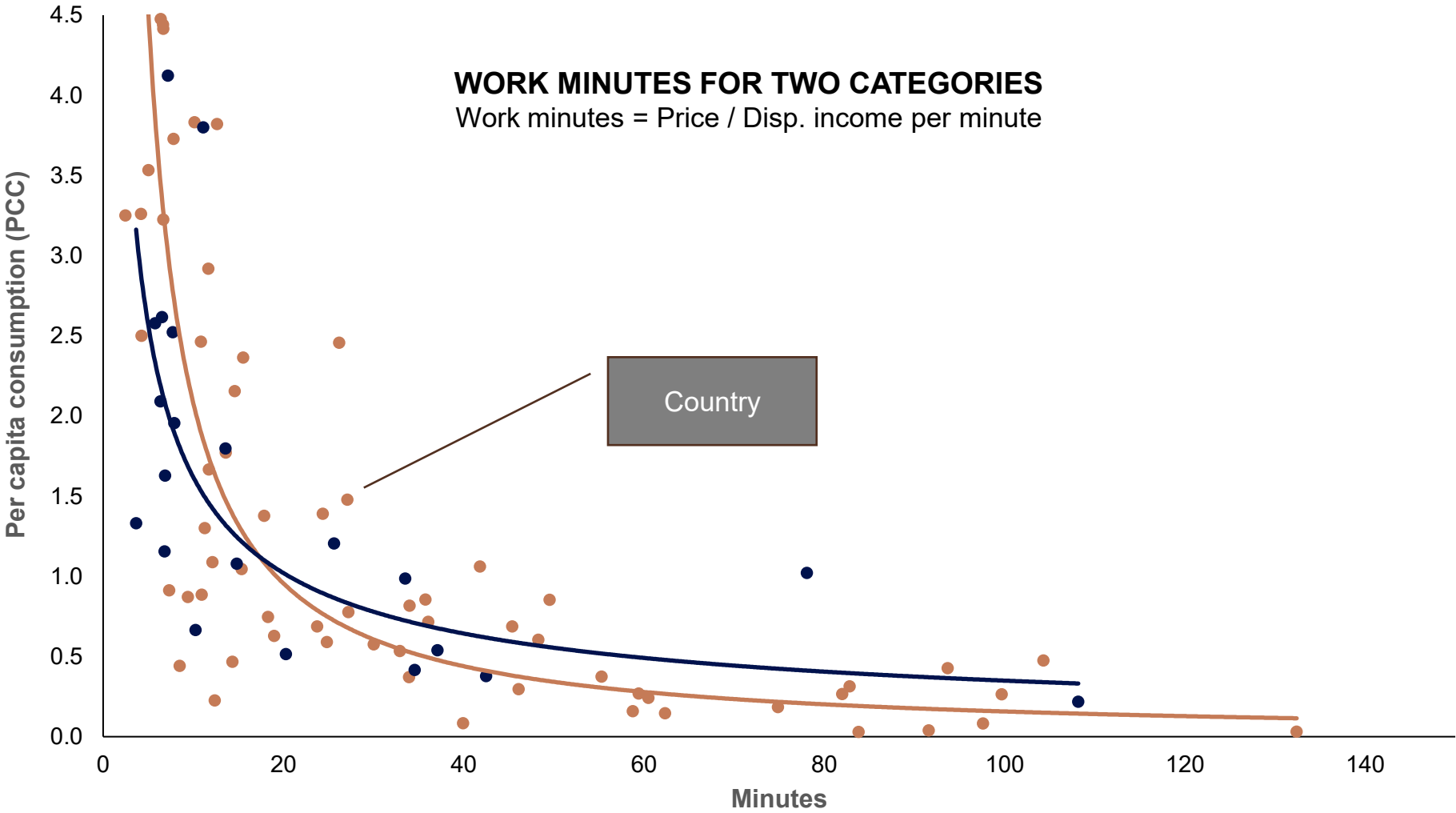
MIDDLE CLASS ANNUAL GROWTH RATE 2003-2023  
10 largest Latin American cities



# How: Work with purchasing power parity values or you will underestimate opportunity and be late



# How? Track affordability by measuring the effort required to buy a product





telecel

eJuice  
Available Here

telecel

KHA

BT GROUP

telecel

Edge

# Agenda

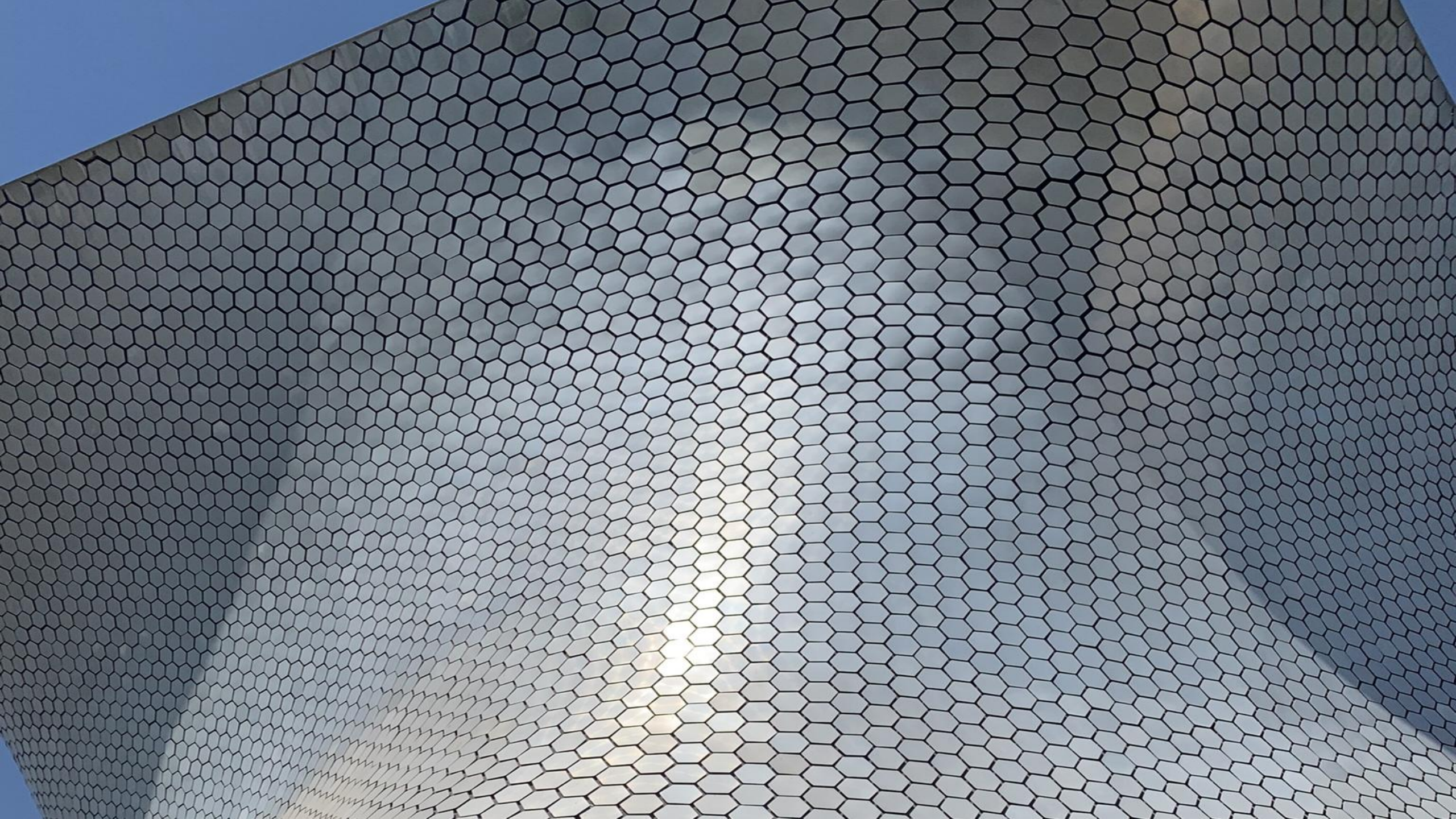
Introduction

A Quick World Tour in  
Images and Numbers

**The Fletcher Competition**

Appendix: Breakout  
Materials







B ROC K

BUTLER

BUTLER

Red River Valley  
Western Railroad  
NO 15  
DOT # 403 345  
M.P. 101.07  
(800) 747-4919



904 810 811  
904 810 811

mobifone  
FAST CONNECT  
INTERNET DI ĐỘNG TỐC ĐỘ CAO

BÁNH MÌ  
10.000 Đ/Ố

# Instructions

You will compete in teams:

- Mexico
- United States
- Viet Nam

**The year is 2022**, you will predict where the market will be in 2027

Each team will report back for 3-5 minutes

Our expert jury will deliberate and pick a winner

- You get 2 slides on macro indicators and country risk for your country
- You get 2 slides with data for the global beer market and your assigned country: Mexico, the United States or Viet Nam
- Your task is to predict the future market growth and risk drawing on these data and AI help, and to argue your case
- There is no correct answer

**There are 3 questions on the last page**

# AI Prompt Ideas

- What are some important factors I should consider if I am trying to predict the beer market evolution in <country> over the next 5 years?
- What types of things should I consider for evaluating risk in my beer predictions?
- How can I estimate the impact of a risk factor as  $\pm x\%$  toward my prediction?

We have tested these prompts, and they gave detailed and insightful answers.

**Feel free to create your own prompts.**

<https://tellusant.github.io/docs/fletcher>



# Agenda

Introduction

A Quick World Tour in  
Images and Numbers

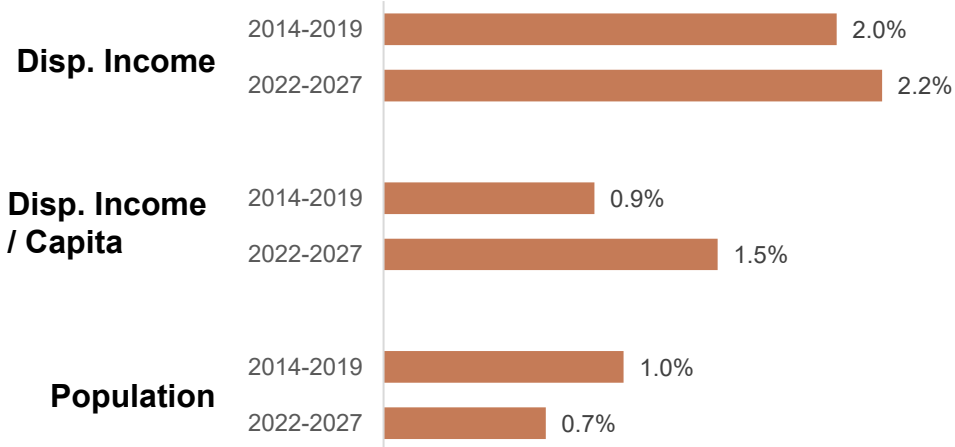
The Fletcher Competition

**Appendix: Breakout  
Materials**



# Mexico: Macro Context

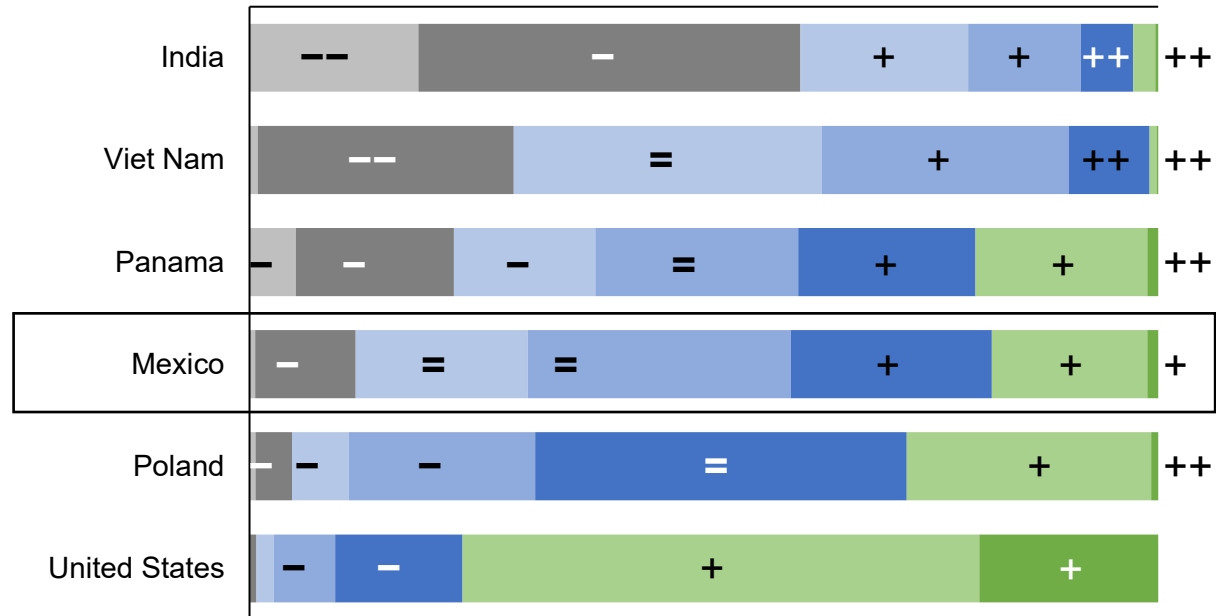
## MEXICO MACRO GROWTH



## SIZE OF SOCIOECONOMIC LEVELS, 2022

+ = - show expected changes 2022-2027

Very Low Low Middle-Low Middle Middle-High High Very High  
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%



Use AI for more on macro

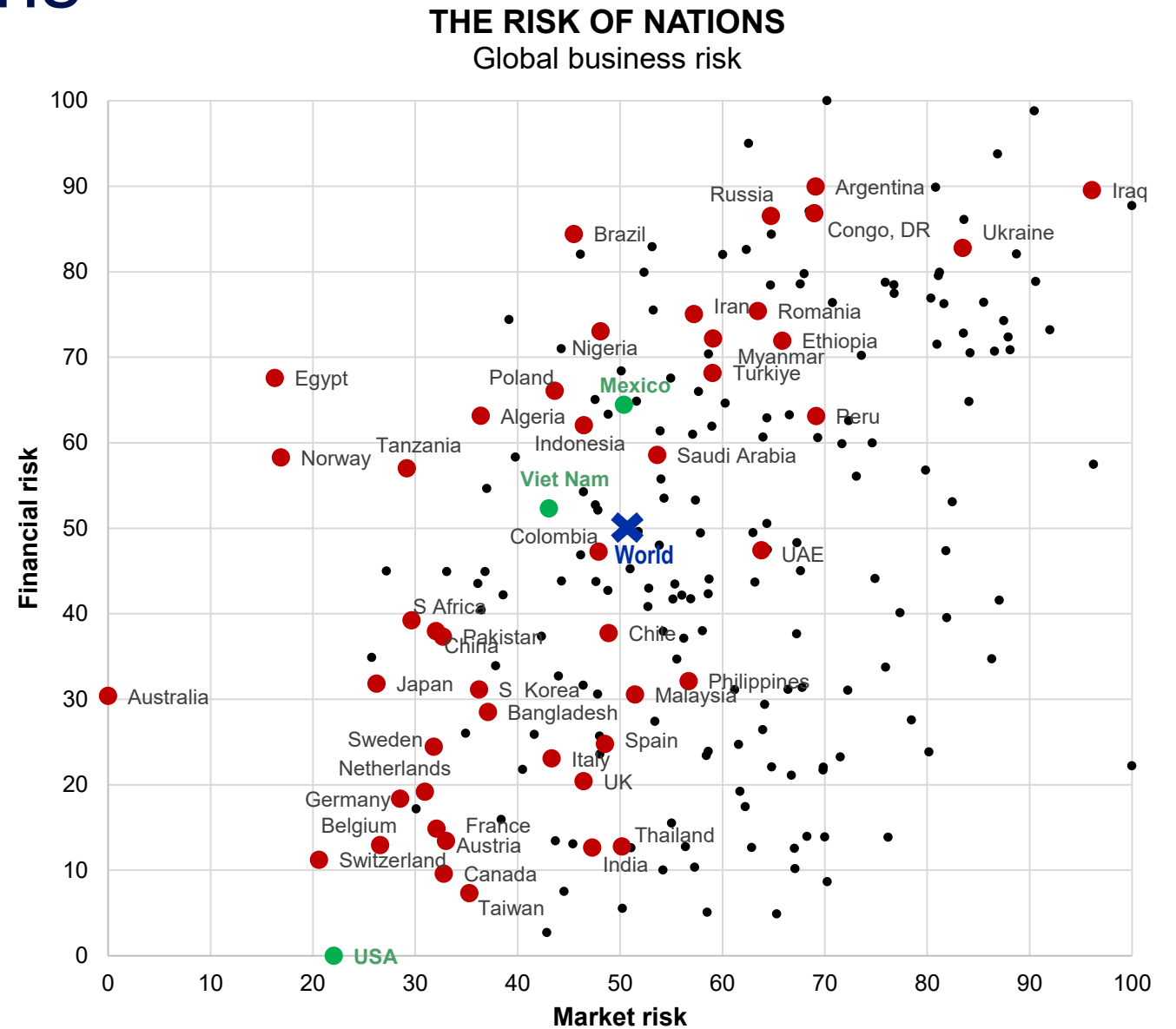
BREAKOUT

# Country Risk Dimensions

More on risk and economic sentiment at

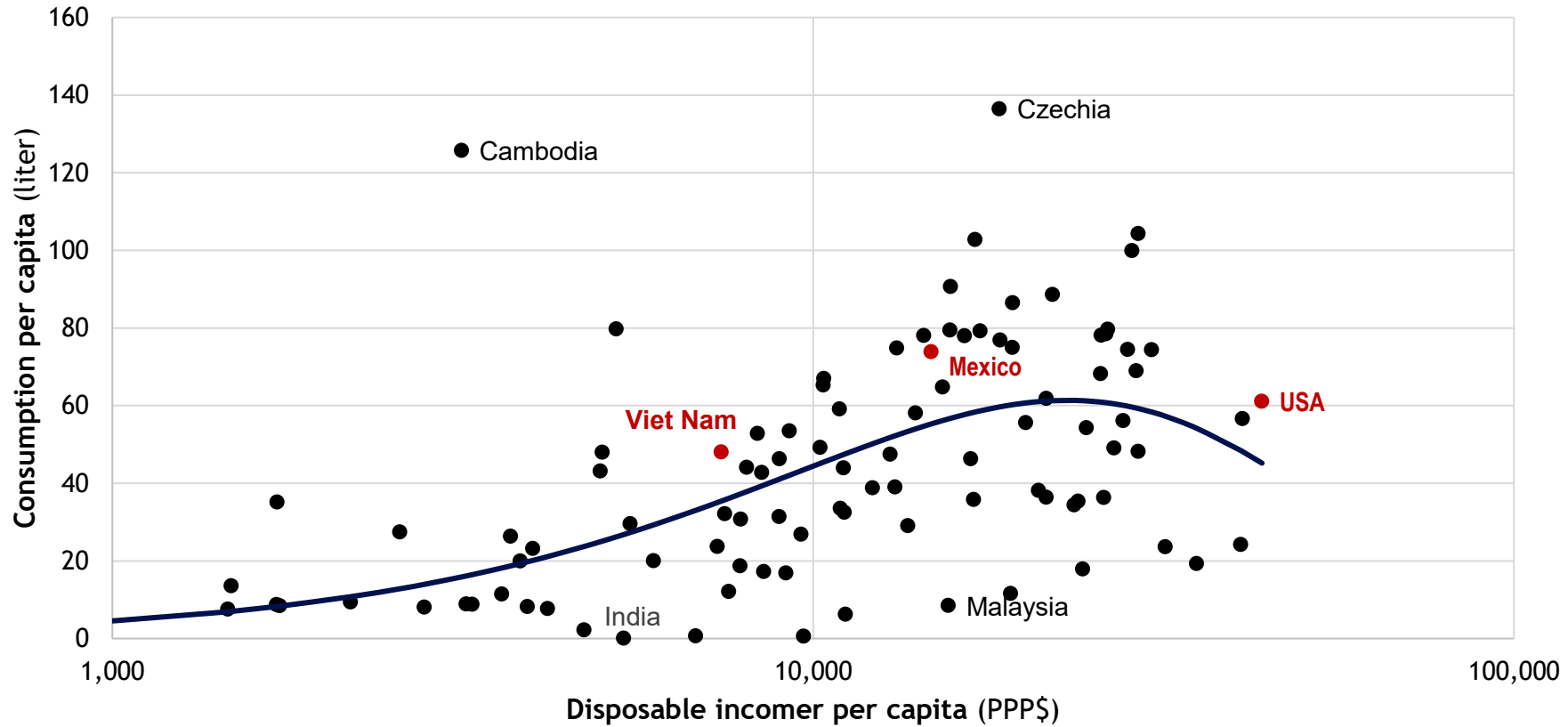
<https://tellubase.com/country-sentiment-analysis/>

Use AI to learn more about risk



# Beer Global S-Curve

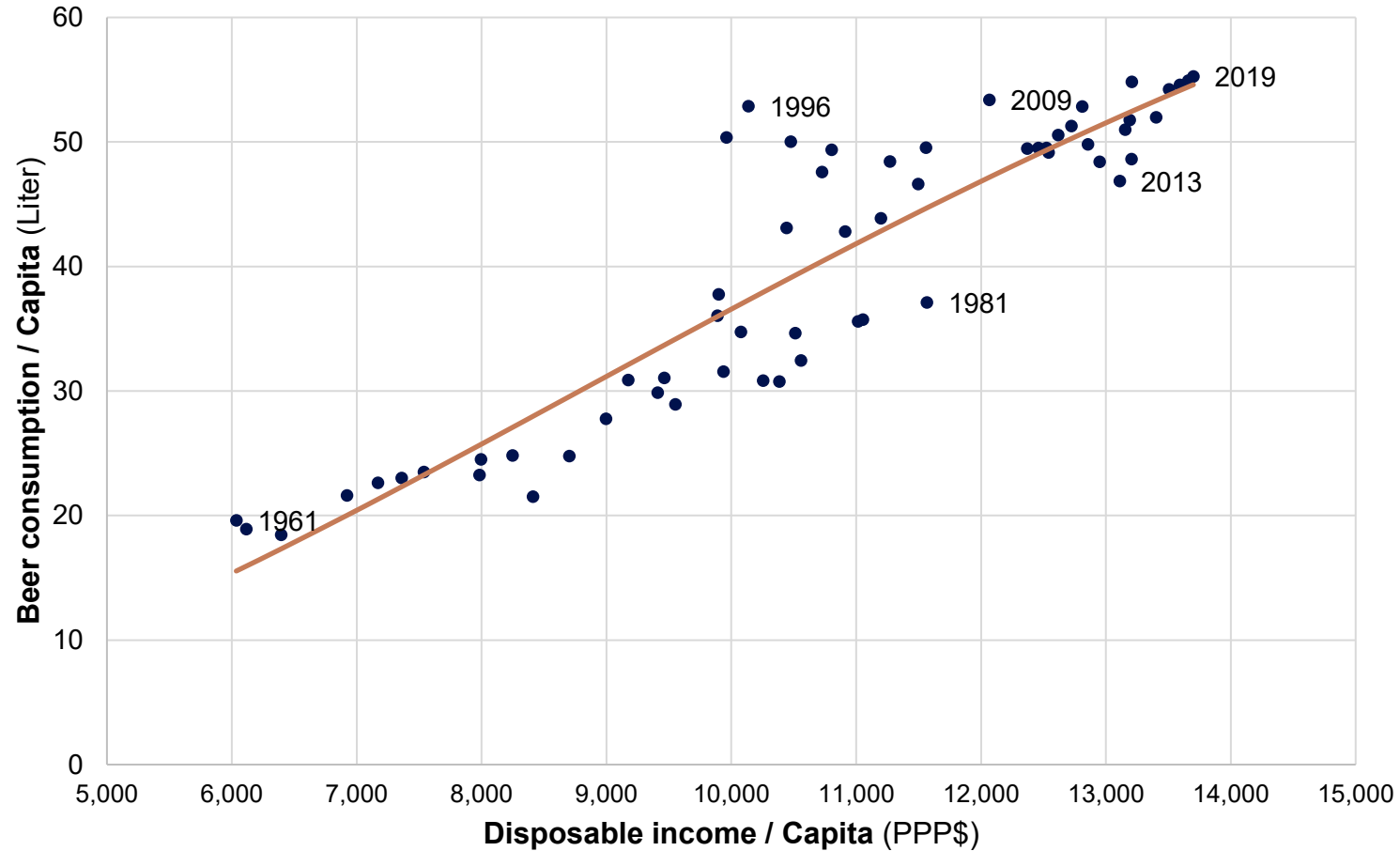
GLOBAL S-CURVE FOR BEER  
Cross-sectional by country



# Mexico Beer Market

## MEXICO BEER CONSUMPTION VS INCOME (S-CURVE)

Actual vs diff. eq. model with damping for high consumption; 1961-2019



Source: WHO; TelluBase; Tellusant analysis

**Use AI to learn more  
about the market**

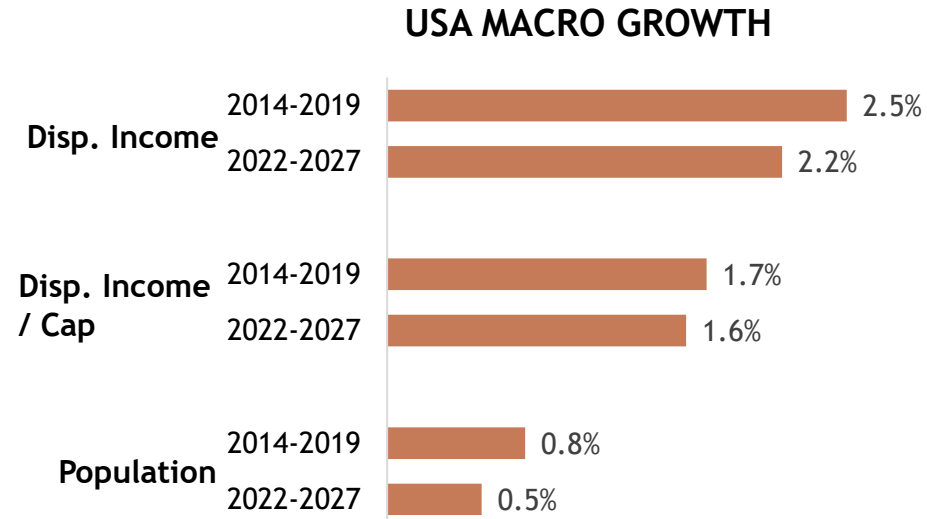
# Mexico Questions

**Assume the pandemic was neutral on demand 2019-2021.  
Down 2020 and up by the same amount in 2021**

- How much will the Mexican market grow / decline 2022-2027?
- How do you argue for this growth / decline?
- What are the risks?

What else would like to know to make your analysis more robust?  
*Name up to 3 items*

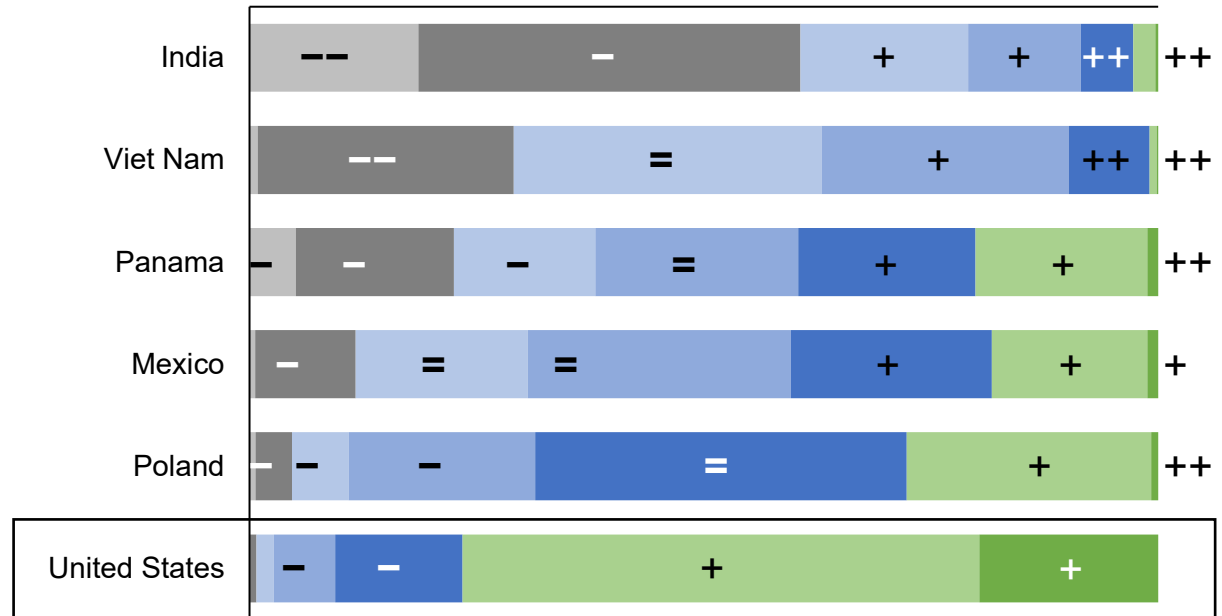
# USA: Macro Context



### SIZE OF SOCIOECONOMIC LEVELS, 2022

+ = - show expected changes 2022-2027

■ Very Low 
 ■ Low 
 ■ Middle-Low 
 ■ Middle 
 ■ Middle-High 
 ■ High 
 ■ Very High



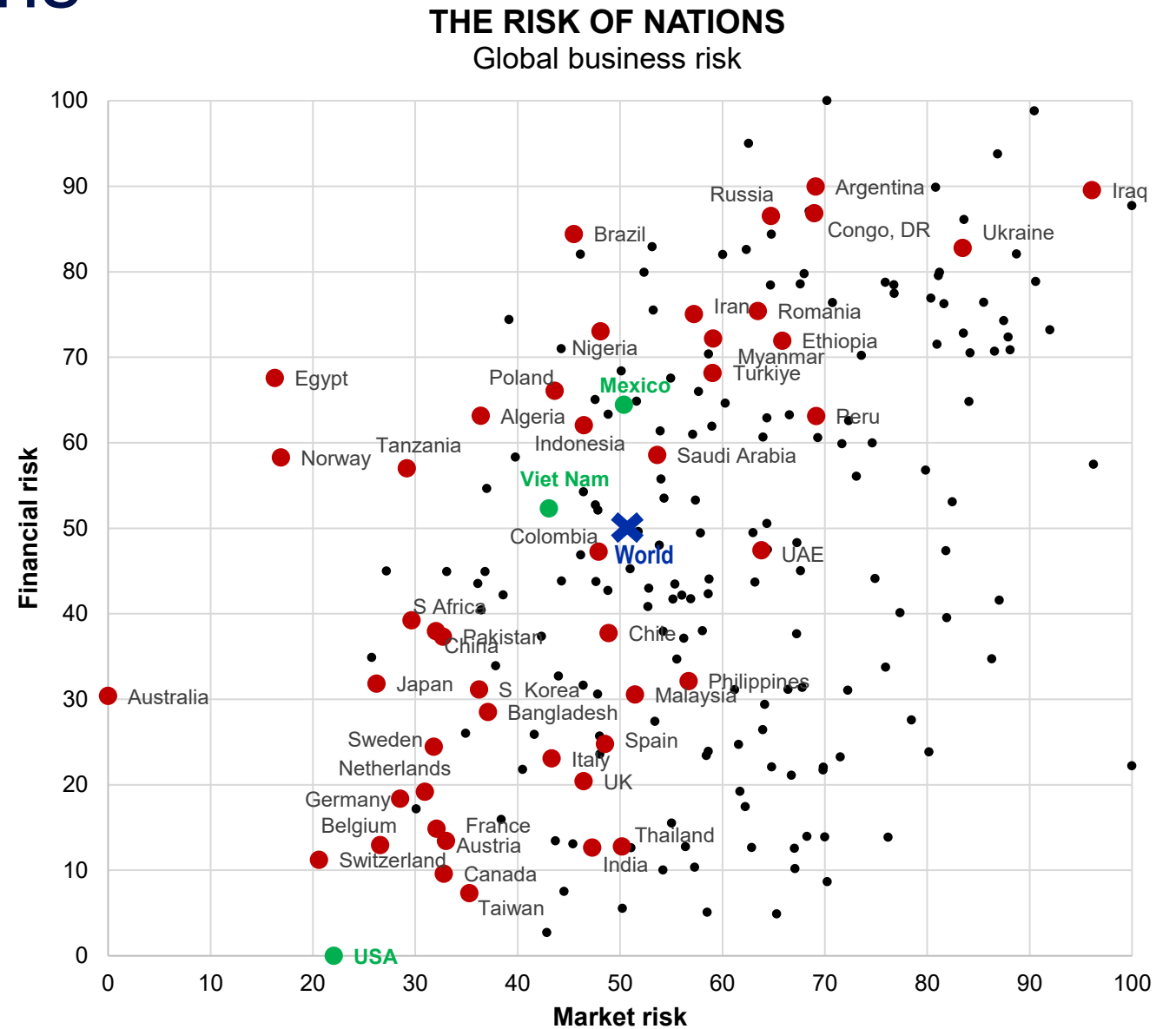
Use AI for more on macro

# Country Risk Dimensions

More on risk and economic sentiment at

<https://tellubase.com/country-sentiment-analysis/>

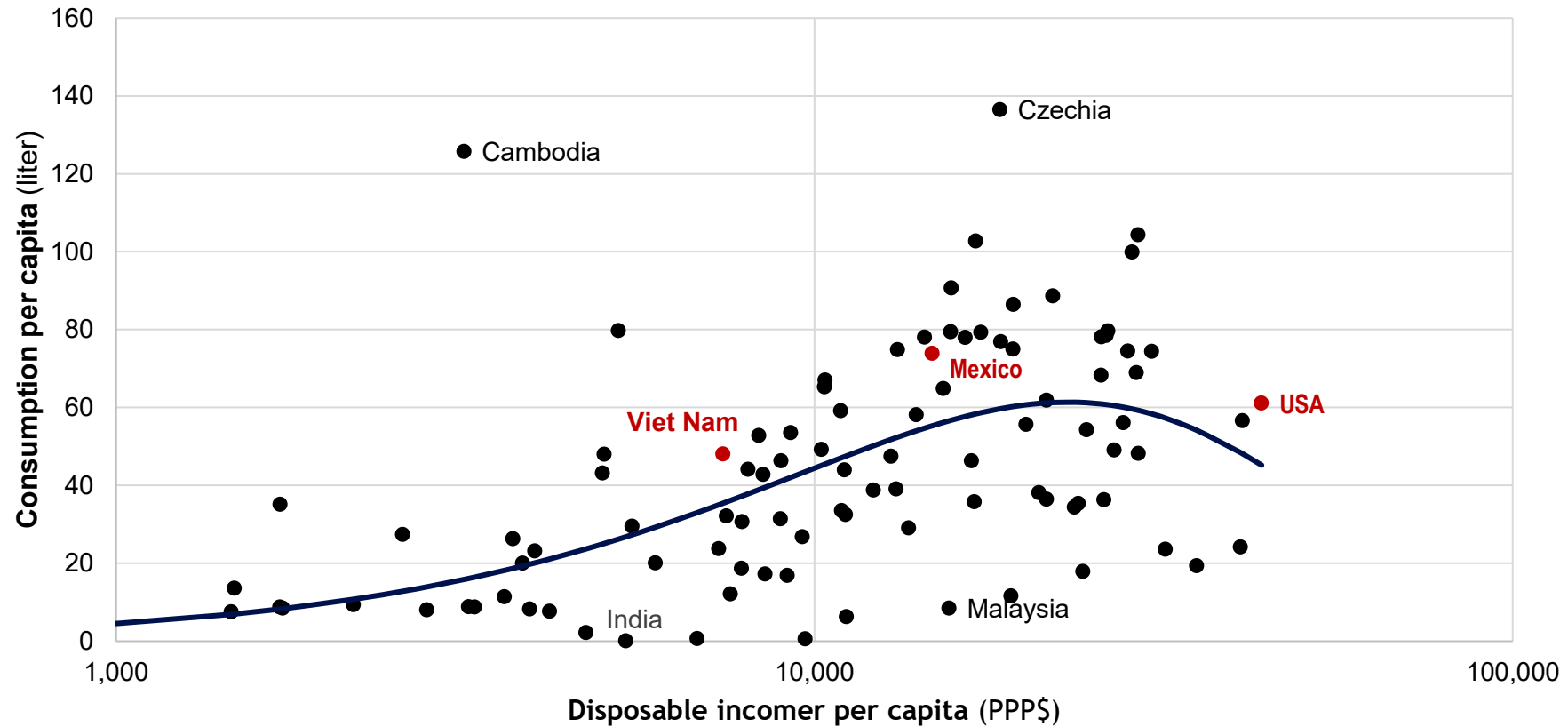
Use AI to learn more about risk



# Beer Global S-Curve

## GLOBAL S-CURVE FOR BEER

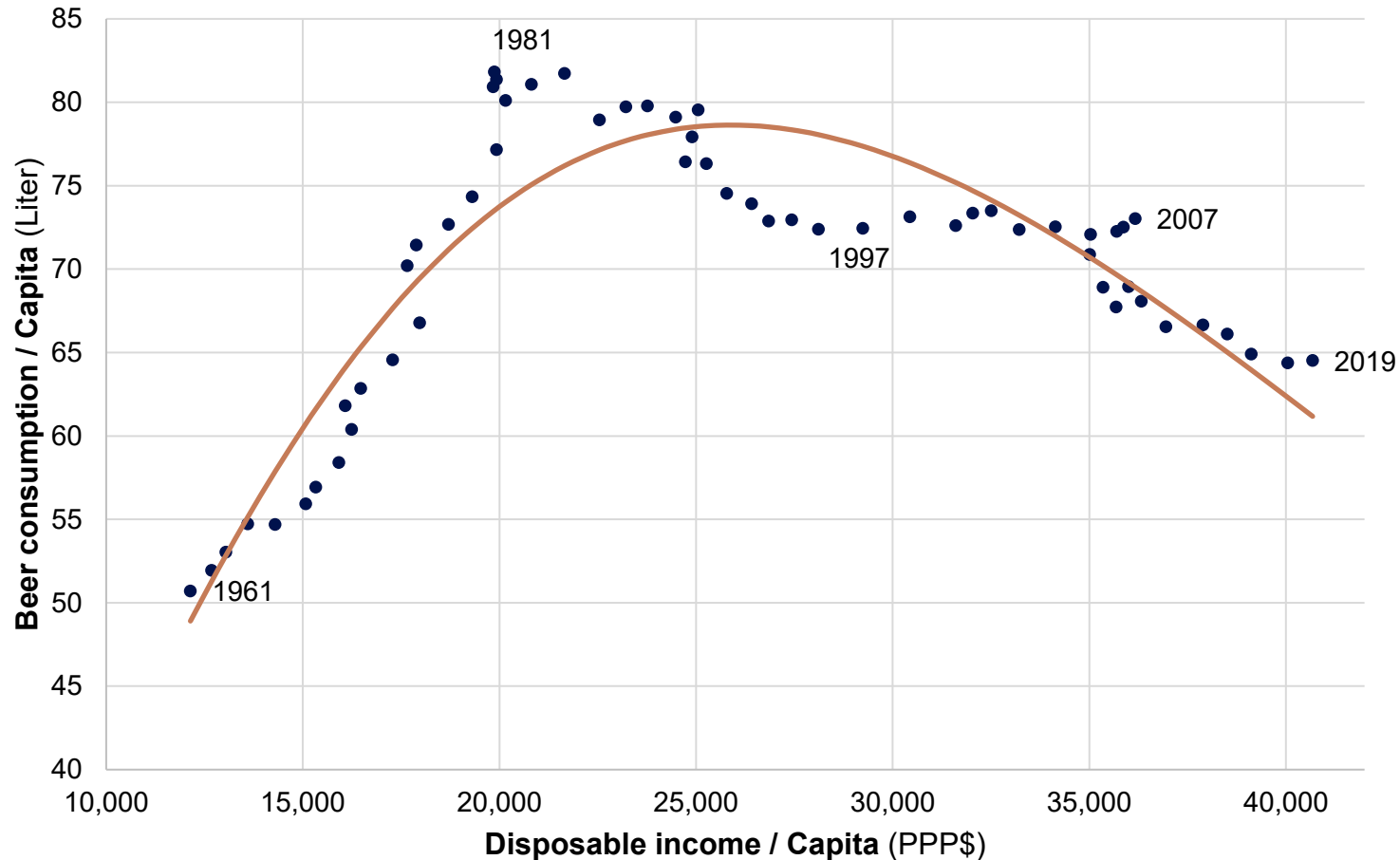
Cross-sectional by country



# USA Beer Market

## UNITED STATES BEER CONSUMPTION VS INCOME (S-CURVE)

Actual vs diff. eq. model with damping for high consumption; 1961-2019



Source: WHO; TelluBase; Tellusant analysis

Use AI to learn more about the market

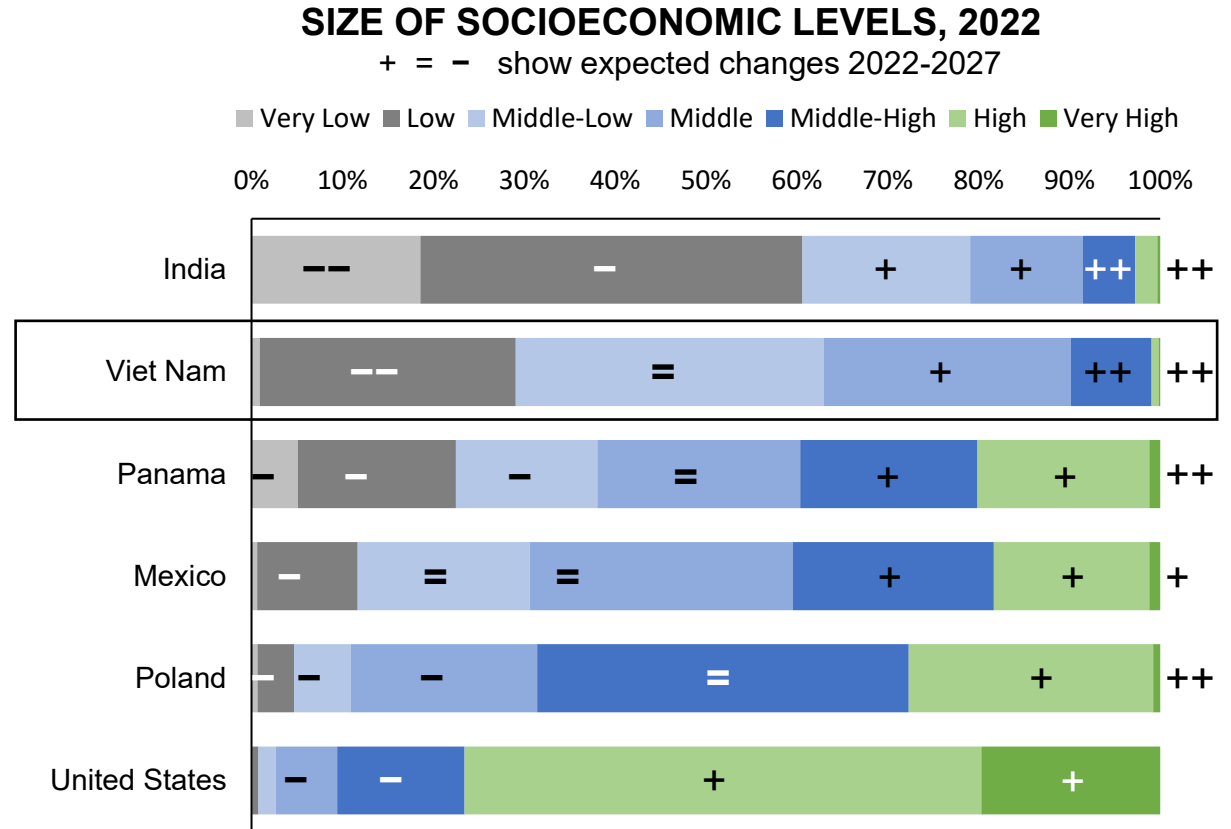
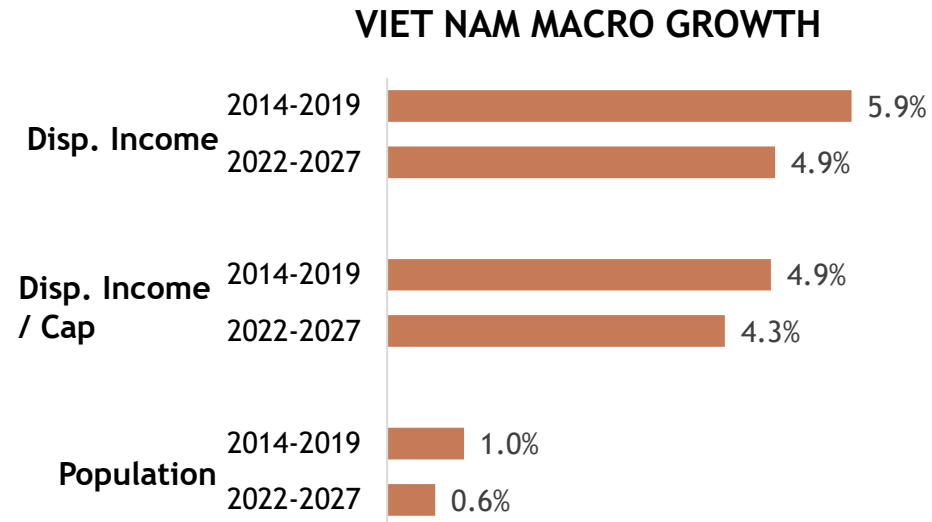
# USA Questions

**Assume the pandemic was neutral on demand 2019-2021.  
Down 2020 and up by the same amount in 2021**

- How much will the U.S. market grow / decline 2022-2027?
- How do you argue for this growth / decline?
- What are the risks?

What else would like to know to make your analysis more robust?  
*Name up to 3 items*

# Viet Nam: Macro Context



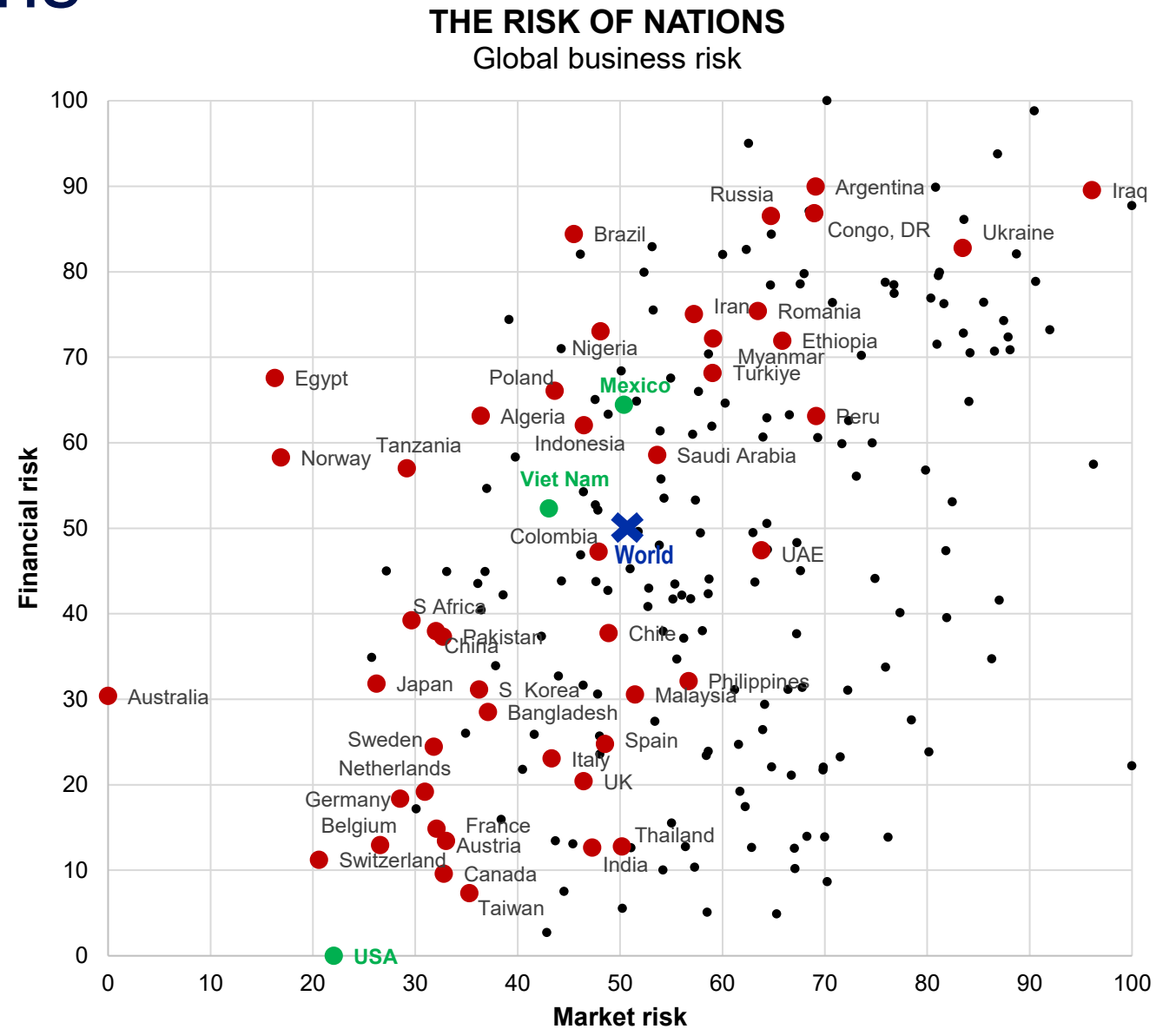
Use AI for more on macro

# Country Risk Dimensions

More on risk and economic sentiment at

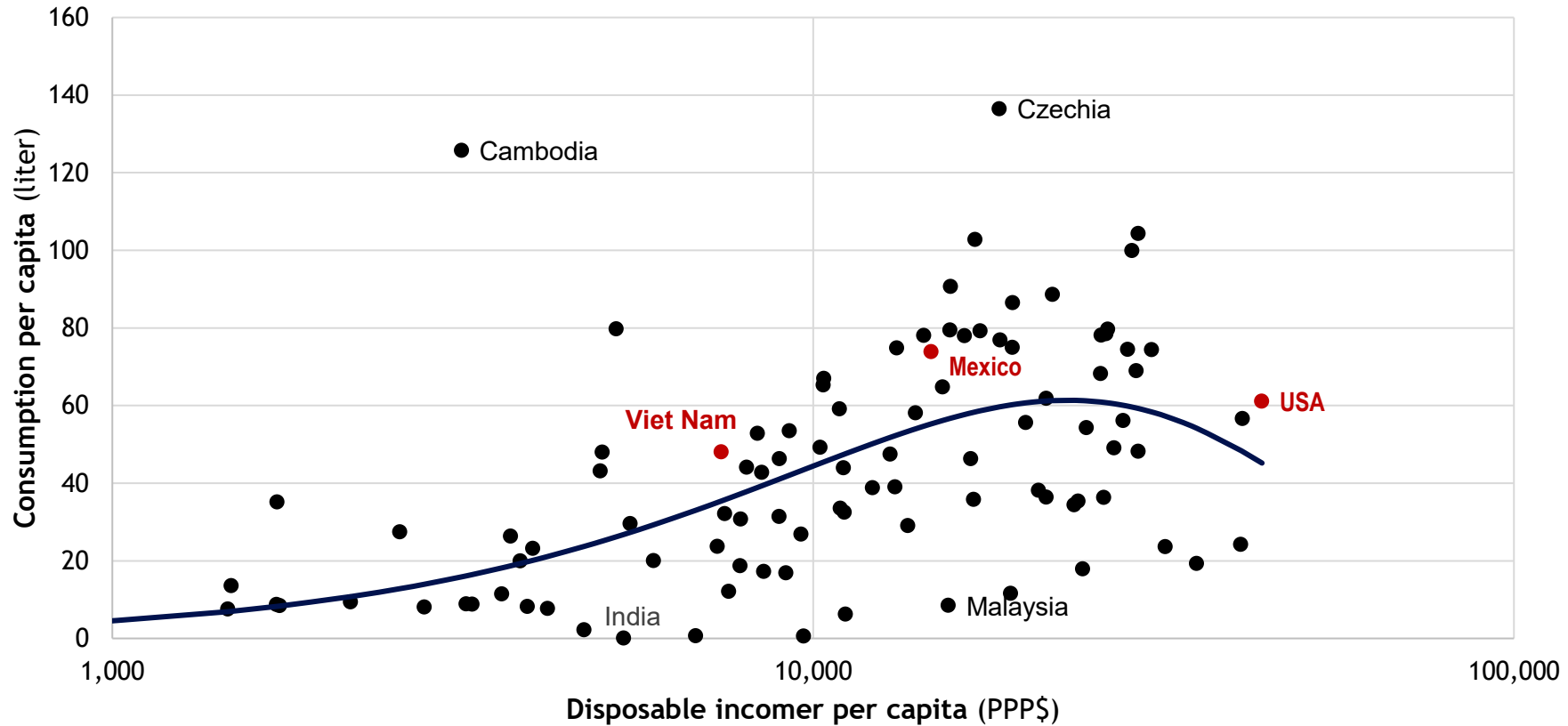
<https://tellubase.com/country-sentiment-analysis/>

Use AI to learn more about risk



# Beer Global S-Curve

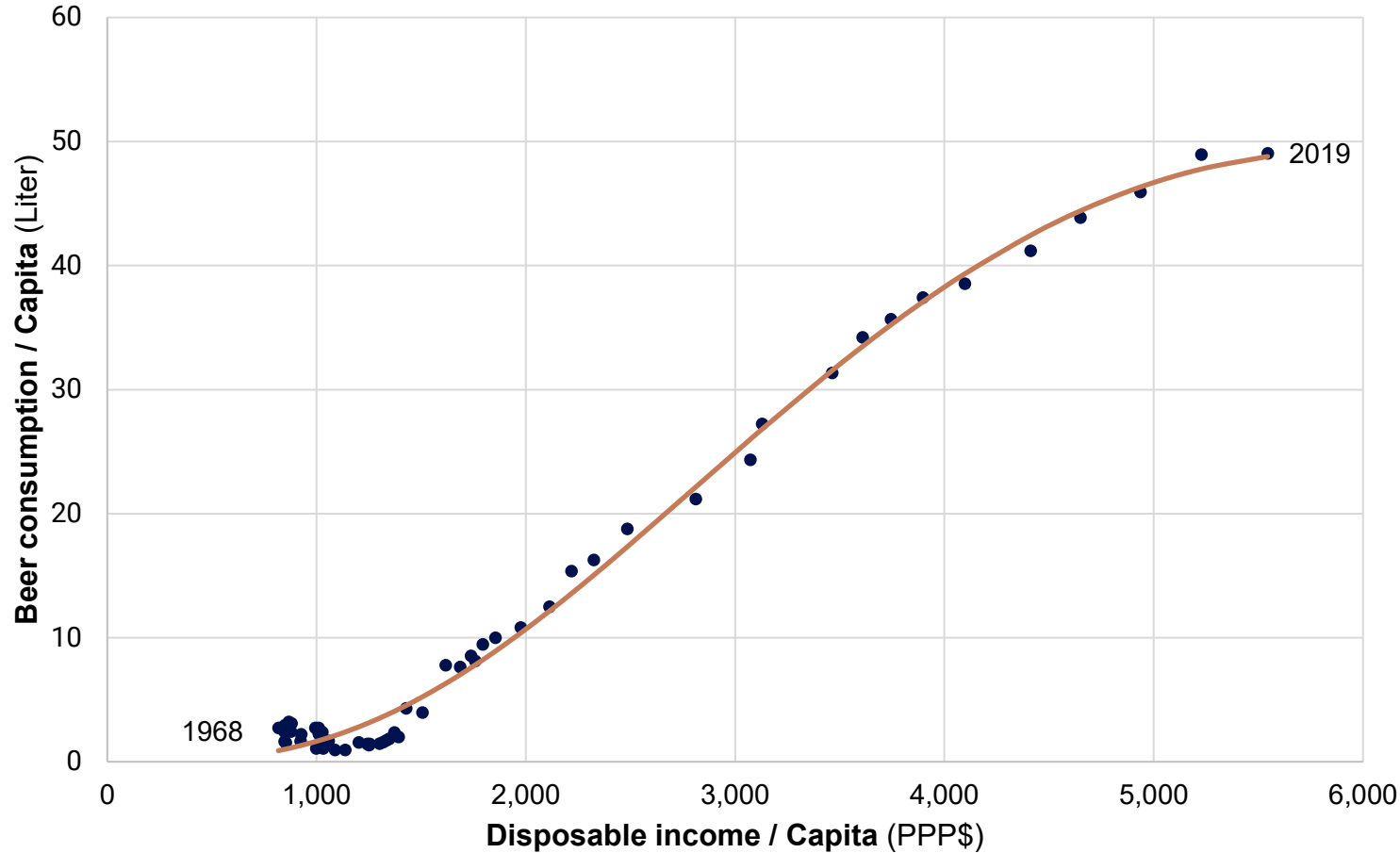
GLOBAL S-CURVE FOR BEER  
Cross-sectional by country



# Viet Nam Beer Market

## VIET NAM BEER CONSUMPTION VS INCOME

Actual vs diff. eq. model with damping for high consumption; 1961-2019



**Use AI to learn more about the market**

# Viet Nam Questions

**Assume the pandemic was neutral on demand 2019-2021.  
Down 2020 and up by the same amount in 2021**

- How much will the Vietnamese market grow / decline 2022-2027?
- How do you argue for this growth / decline?
- What are the risks?

What else would like to know to make your analysis more robust?  
*Name up to 3 items*