



# **EQUITY IN HOUSEHOLD SPENDING ON ALCOHOLIC BEVERAGES IN VIETNAM: ASSESSING CHANGES BETWEEN 2002 AND 2018**

**AUTHORS: DAO THE SON; CU NGUYEN GIAP; NGUYEN THU HUONG; TRAN KIM ANH; LE MAI TRANG, DINH  
THI HA**

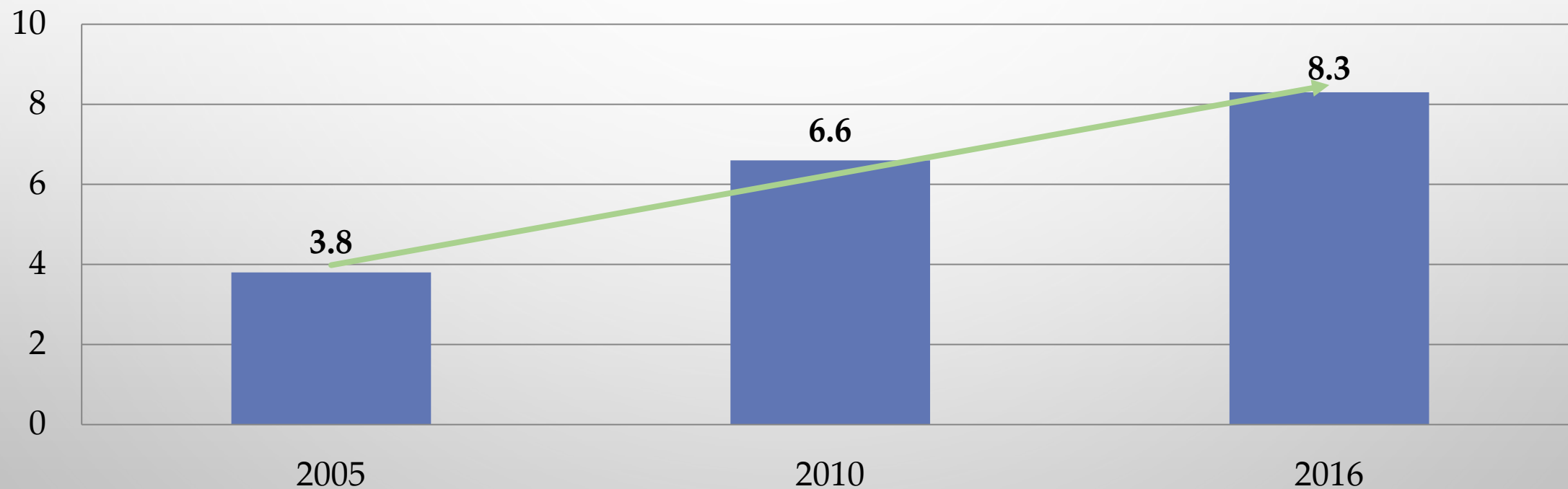
***THUONGMAI UNIVERSITY***

**GAPC2023 PRESENTATION**

# BACKGROUND

- VIETNAM'S ALCOHOL CONSUMPTION HAS BEEN IN A FAST INCREASING TREND
- ALCOHOL DRINKS ARE SUBJECTED TO EXCISE TAX, WITH DIFFERENT RATES ON DIFFERENT TYPE OF PRODUCTS
- THE EXCISE TAX LAW IS EXPECTED TO BE REVISED IN 2024 (A LONG AWAITED PROCESS INITIATED SINCE 2017)
- THE EXCISE TAX ON ALCOHOLIC DRINKS IS CURRENTLY AD VALOREM ONLY
- BUT ONE CRITICAL DEBATE IS NOW ON THE NEED OF ADDING A SPECIFIC COMPONENT (PURE ALCOHOL-CONTENT-BASED)

# ALCOHOL CONSUMPTION CALCULATED IN LITERS OF PURE ALCOHOL PER CAPITA (+15 YEARS OLD) PER YEAR IN VIETNAM



Source: *Global Information System on Alcohol and Health*, WHO, accessed June 2018

# EXCISE TAX ON ALCOHOL PRODUCTS IN VIETNAM

## THE 2014 REVISED LAW ON SCT:

- AD VALOREM RATE
  - TAX BASE: [DOMESTIC FACTORY GATE PRICE] OR [CIF+IMPORT TAX]
1. FOR WINE AND SPIRITS OF 20% ABV OR MORE: 55% FROM JANUARY 1, 2016; 60% FROM JANUARY 1, 2017; AND 65% FROM JANUARY 1, 2018.
  2. FOR WINE AND SPIRITS BELOW 20% ABV: 30% FROM JANUARY 1, 2016 AND 35% FROM JANUARY 1, 2018.
  3. FOR BEER PRODUCTS: 55% FROM JANUARY 1, 2016; 60% FROM JANUARY 1, 2017; AND 65% FROM JANUARY 1, 2018.

CURRENT TAX SHARE AS OF RETAIL PRICE: 26% - 36%

# RESEARCH QUESTION

- **HOW HOUSEHOLD ALCOHOL EXPENDITURE CONTRIBUTED TO THE CHANGE IN INEQUITY IN VIETNAM?**
- **HOW WAS BEER DIFFERENT FROM WINE&SPIRITS IN THIS ASPECT?**

*THE STUDY AIMS TO BETTER INFORM ALCOHOL POLICIES, WITH FOCUS ON TAXATION*

# METHODS: EXPENDITURE DATA

- **DATA: VIETNAM HOUSEHOLD LIVING STANDARD SURVEYS**
  - STARTED IN 1993, CONDUCTED EVERY TWO YEARS SINCE 2002 UNTIL 2018, ANNUALLY SINCE 2020 WITH SIGNIFICANT CHANGE IN METHODOLOGY
  - A NATIONAL SAMPLED SURVEY OF HOUSEHOLD INCOME AND EXPENDITURE
  - SAMPLE SIZE: >9000 HOUSEHOLDS, RANDOMLY SELECTED IN 63 PROVINCES
- **KEY VARIABLES**
  - **HOUSEHOLD EXPENDITURE:** TOTAL OF ALL REPORTED CONSUMPTION EXPENDITURE IN ONE YEAR, INCLUDING ORDINARY AND HOLIDAY, DIVIDED BY HOUSEHOLD SIZE TO GET HH EXPENDITURE PER CAPITA
  - **ALCOHOL EXPENDITURE:** TOTAL ALCOHOL EXPENDITURE IN ONE YEAR, INCLUDING ORDINARY AND HOLIDAY, DIVIDED BY HOUSEHOLD SIZE TO GET HH EXPENDITURE PER CAPITA
  - **VHLSS ALLOWS TO BREAK DOWN INTO:**
    - (1) BEER AND
    - (2) OTHER ALCOHOLIC BEVERAGES (WINE AND SPIRITS)

# METHODS: INEQUITY MEASURE

- **CONCENTRATION INDEX (STRUCTURAL PROGRESSIVITY ANALYSIS)**
  - SHOW HOW ALCOHOL EXPENDITURE IS UNEQUALLY DISTRIBUTED ACROSS THE INCOME DISTRIBUTION
  - CALCULATED FROM THE CONCENTRATION CURVE OF THE HOUSEHOLD ALCOHOL CONSUMPTION EXPENDITURE PER CAPITA
  - **INTERPRETATION: – 1.0 (WHERE ALL EXPENDITURE ON ALCOHOLIC BEVERAGES IS MADE BY THE POOREST HOUSEHOLD) TO + 1.0 (WHERE ALL ALCOHOL EXPENDITURE IS MADE BY THE RICHEST HOUSEHOLD).**
- **KAKWANI INDEX (EFFECTIVE PROGRESSIVITY ANALYSIS)**
  - $K = C - G$
  - WHERE G IS THE GINI INDEX (LORENZ CURVE), COMPUTED FROM HOUSEHOLD INCOME PER CAPITA, RANGE [0,1]
  - K IS IN THE RANGE [-2, 1]
  - **INTERPRETATION:  $K > 0$  MEANS THAT ALCOHOL EXPENDITURE IS PROGRESSIVE**
    - AS RICHER HOUSEHOLDS SPEND PROPORTIONATELY MORE ON ALCOHOLIC BEVERAGES THAN THEIR SHARE OF CONSUMPTION EXPENDITURE.
- **THE CONCENTRATION AND KAKWANI INDEX WAS COMPUTED FOR EVERY TWO YEAR USING THE VHLSS DATA SETS, FOR THE PERIOD FROM 2002 TO 2018**

REFERENCE: NANAK C. KAKWANI, MEASUREMENT OF TAX PROGRESSIVITY: AN INTERNATIONAL COMPARISON, *THE ECONOMIC JOURNAL*, VOLUME 87, ISSUE 345, 1 MARCH 1977, PAGES 71–80, [HTTPS://DOI.ORG/10.2307/2231833](https://doi.org/10.2307/2231833)

# RESULTS

<b>Alcohol per capita consumption expenditure</b>									
Year	2002	2004	2006	2008	2010	2012	2014	2016	2018
Concentration Index	0,335	0,352	0,372	0,352	0,358	0,309	0,287	0,299	0,301
<i>Gini Index</i>	0,367	0,401	0,389	0,381	0,432	0,393	0,382	0,393	0,390
Kakwani index	-0,032	-0,048	-0,017	-0,029	-0,074	-0,084	-0,095	-0,094	-0,089
<b>Wine&amp;spirits per capita consumption expenditure</b>									
Concentration Index	0,035	0,043	0,077	0,077	0,075	0,062	0,018	0,020	0,019
<i>Gini Index</i>	0,367	0,401	0,389	0,381	0,432	0,393	0,382	0,393	0,390
Kakwani index	-0,332	-0,357	-0,312	-0,304	-0,357	-0,331	-0,364	-0,373	-0,371
<b>Beer per capita consumption expenditure</b>									
Concentration Index	0,683	0,612	0,586	0,537	0,516	0,457	0,423	0,412	0,407
<i>Gini Index</i>	0,367	0,401	0,389	0,381	0,432	0,393	0,382	0,393	0,390
Kakwani index	0,316	0,211	0,197	0,156	0,084	0,064	0,040	0,018	0,017



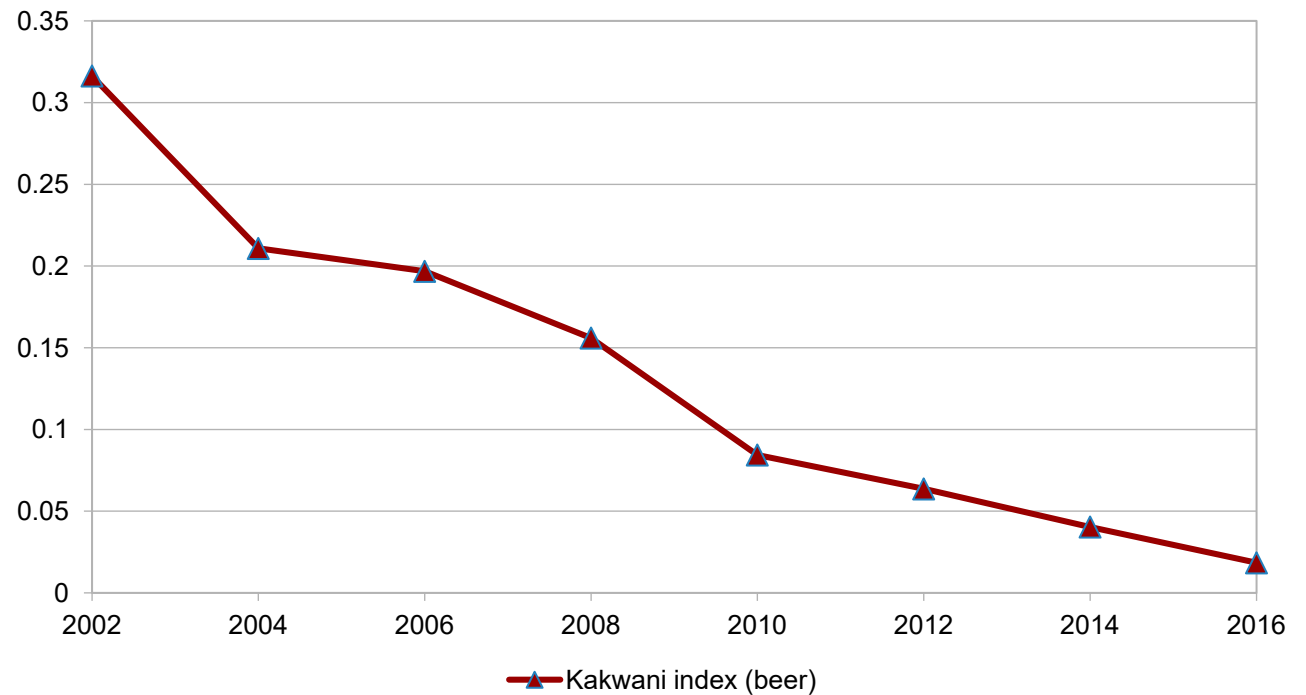
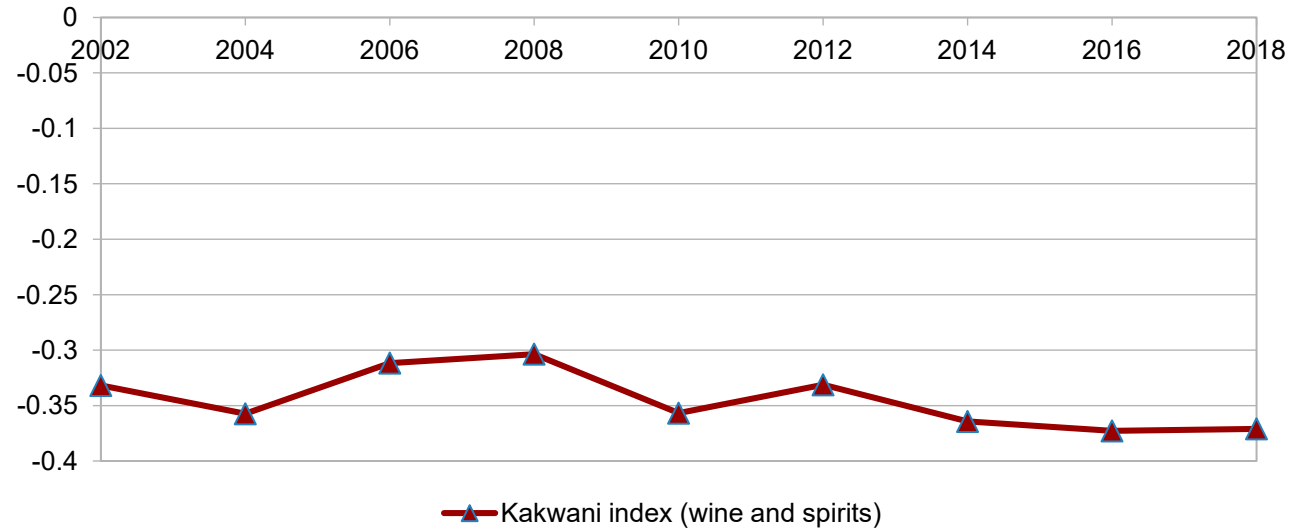
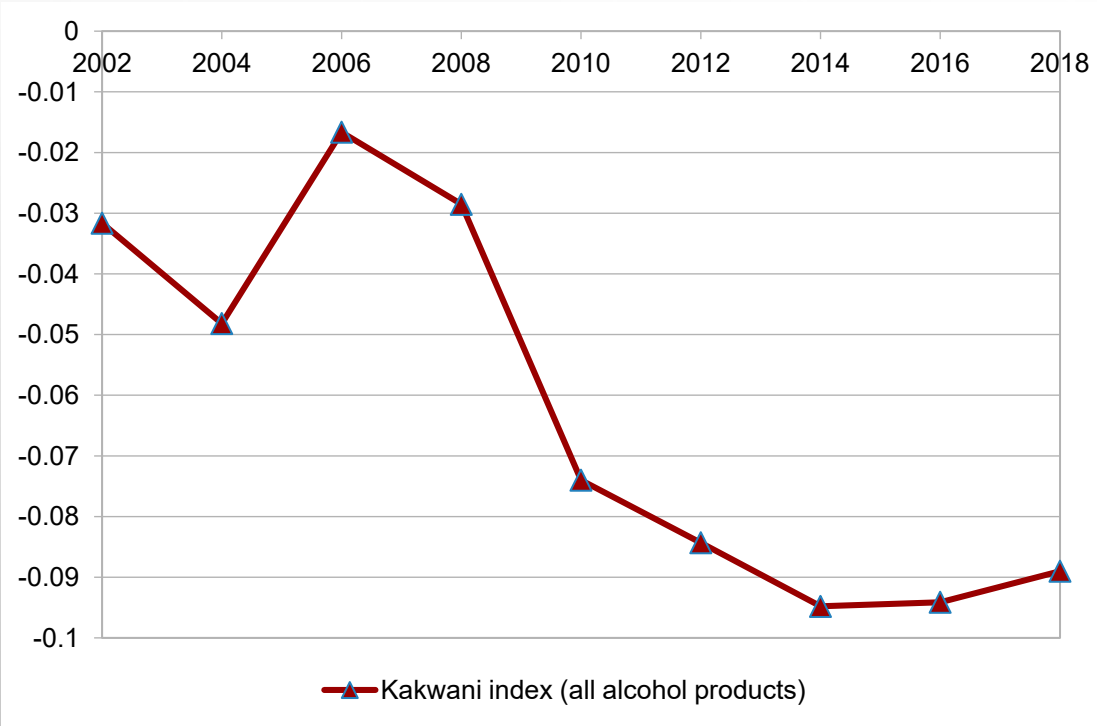
# RESULTS (CONT.)

## IF WE LOOK AT THE CONCENTRATION INDEX:

- POSITIVE VALUE FOR BEER, WINE&SPIRITS AND ALCOHOL (ALL PRODUCTS): THE RICHER HOUSEHOLDS SPENDING MORE THAN THE POORER
- BEER STARTED OFF WITH VERY HIGH CONCENTRATION INDEX (0.68 IN 2002): IT USED TO BE THE PRODUCTS CONSUMED "RICHER" HOUSEHOLDS
- THE CONCENTRATION INDEX FOR (1) ALL ALCOHOL PRODUCTS, (2) WINE & SPIRITS, AND (3) BEER ALL EXPERIENCED A DECREASING TRENDS: THE "POORER" ARE SPENDING MORE, AS COMPARED PROPORTIONALLY WITH THE "RICHER"

*HOWEVER, THIS ANALYSIS IS NOT ENOUGH TO ASSESS PROGRESSIVITY BECAUSE OF THE OVERALL EXPENDITURE VARIATIONS.*

# RESULTS (CONT.)



# RESULTS (CONT.)

- THE KAKWANI INDEX FOR **WINE AND SPIRITS EXPENDITURE**
    - NEGATIVE: PROPORTIONALLY TO TOTAL EXPENDITURE, THE LOWER INCOME GROUP SPENT MORE THAN THE HIGHER INCOME GROUP → **REGRESSIVE**
    - **NO SIGNIFICANT CHANGE IN REGRESSIVITY BETWEEN 2018 AND 2002.**
  - THE KAKWANI INDEX FOR **BEER EXPENDITURE**
    - POSITIVE: PROPORTIONALLY TO TOTAL EXPENDITURE, THE HIGHER INCOME GROUP SPENT MORE → **PROGRESSIVE**
    - DECLINED FROM 0.32 IN 2002 TO 0.17 IN 2018 → **LESS PROGRESSIVE (PRO-RICH SHIFT)**
    - **IN 2018: THE KAKWANI INDEX WAS VERY SMALL: 0.17**
  - THE KAKWANI INDEX FOR **ALL ALCOHOL PRODUCTS**
    - NEGATIVE: **REGRESSIVE**
    - DECLINED FROM -0.03 IN 2002 TO -0.08 IN 2018 → **MORE REGRESSIVE (PRO-RICH SHIFT)**
- **BEER HAS BECOME AN ORDINARY PRODUCTS WHICH MOSTLY CONTRIBUTED TO THE REGRESSIVITY SHIFT OF ALL ALCOHOL CONSUMPTION EXPENDITURE**

# SOME OTHER RELEVANT INFORMATION

Sale by year (1000l)	2018	2019	2020	2021	2022
<b>Beer</b>	4.287.300	4.594.600	3.927.900	3.660.700	4.840.200
<b>Beer (pure alcohol)</b>	214.355	229.674	196.286	182.913	241.864
<b>Other alcohol products</b>	77.473	79.315	60.931	53.735	63.231
<b>Others (pure alcohol)</b>	26.042	26.442	19.856	17.189	20.488

- Sale of beer is so much higher than sale of other alcohol products in terms of volume, but the gap is smaller if converted to actual pure alcohol

Source: Euromonitor data and the WB

# CONCLUSION

- AS HOUSEHOLD ALCOHOL CONSUMPTION EXPENDITURE IS WORSENING THE INEQUITY SITUATION, ANY POLICY TO REDUCE EXPENDITURE CAN IMPROVE EQUITY.
- INCREASE TAX IS THE MOST COST-EFFECTIVE POLICY
- AS BEER IS THE PRODUCT WHICH CONTRIBUTED THE MOST TO THE WORSENEED INEQUITY OF HOUSEHOLD EXPENDITURE, TAX POLICY REFORM SHOULD PAY MORE ATTENTION ON TAX STRUCTURE AND MECHANISM TO DRIVE BEER CONSUMPTION.