

Distributive measures in **Costa Rica**

**United Nations Network of Economic Statisticians
Second Beyond GDP Sprint Meeting**

March 24th , 2022

**Gabriela Saborio
Henry Vargas**

The opinions expressed by the presenters do not necessarily represent those of the Central Bank authorities.

Outline

1. Introduction
2. Objectives
3. Methodology
4. Data sources
5. Main results
6. Challenges, lessons learned and next steps

1

Introduction



Distributional measures are needed to assess the degree of inequality

2

Project objectives

Develop distributive measures of national accounts

Develop and test a simplified methodology to promote measures of household income and consumption distribution consistent with national accounts.

Understand the differences between NA and survey

Better understanding of national accounts and household surveys to help reconcile micro and macro sources.

Improve quality

The estimation methodology is improved as necessary in terms of international best practices in the compilation of national accounts and household surveys.

Project Outcomes

- Increased capacity in Costa Rica to compile national accounts distributional measures.
- Increased capacity of the World Bank to assist its client countries.

3

Methodology



Adjustments
to NA totals



Micro-macro
linkage



Imputation
and
alignment



Cluster
households



Elaborate
indicators

EG-DNA methodology followed

4 Data sources

In addition to the Institutional sectorial accounts, the following surveys where used:

Source	Type of survey	Objective	Population under study	Domains	Frequency	Main topics covered
National Survey of Household Income and Expenditure (Enigh)	Survey to households and individuals	Produce statistical information on spending patterns and the structure of household income in Costa Rica, to update consumption and financial situation indicators.	Individual dwellings, the households that inhabit these dwellings and the habitual residents of the households.	1. National level	Five year (2018)	Household final consumption expenditure, non-consumption expenditure, capital expenditure and household income and savings.
				2. Zone urban and rural		
				3. Planning region: Central, Chorotega, and the others.		
National Survey of Households Microenterprises	Household survey (informal sector)	Provide statistical information related to the economic activity of businesses created in households, in order to generate statistics necessary for the informal sector.	Micro-enterprises of households of productive activities of goods or services directed to the market, in whole or in part.	1. National level	Anual	Characteristics of the activity, sales, expenses, assets and financing.
				2. Zone urban and rural		
				3. Planning region: Central, Chorotega, and the others		

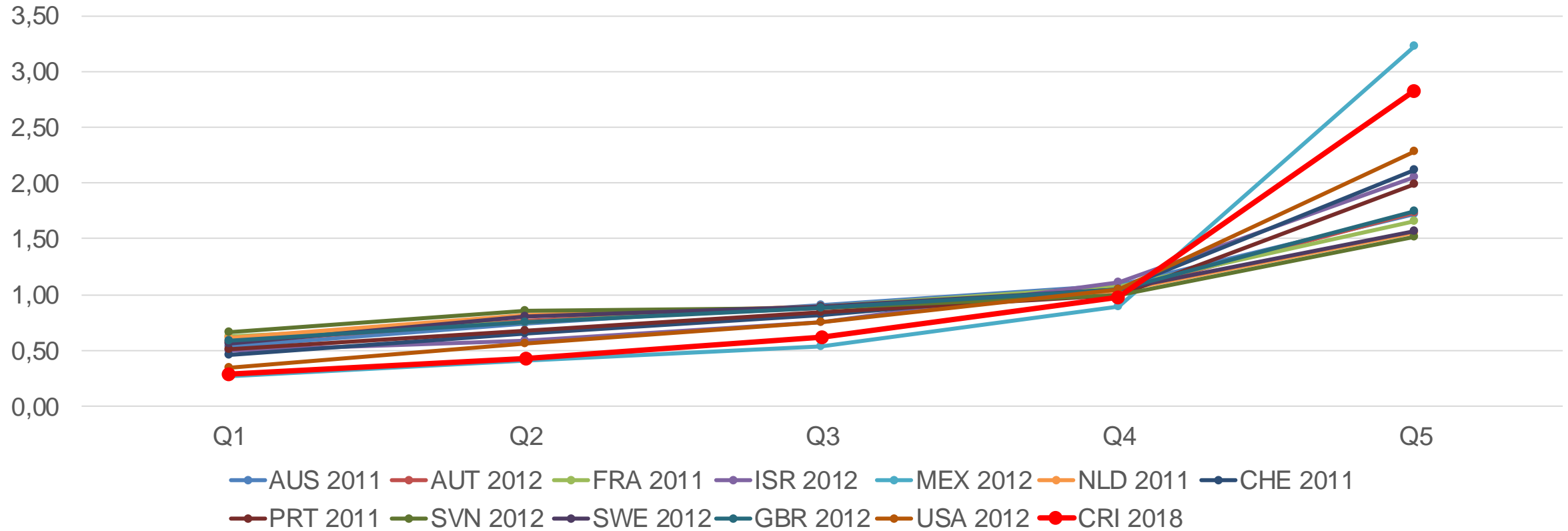
5 Main results

- **Compilation of sequence of household accounts from production, disposable income, final consumption and saving for year 2017 and then updated for 2018.**
- **Households are grouped: income quintiles, reference person's gender, reference person's economic activity.**
- **Inequality indicators obtained.**
 1. Variables by household and by consumption unit.
 2. Disparity measures.
 - Ratio of each group with respect to the mean.
 - Max/Min Ratio.
 - Variation coefficient.
- **Distribution of each element of consumption and income by household group.**

5

Main results by income quintile

Ratio to average, adjusted disposable income

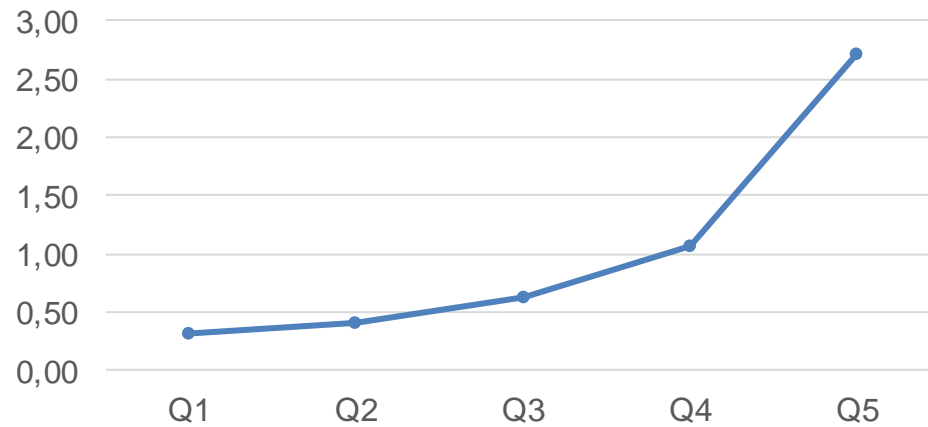


5

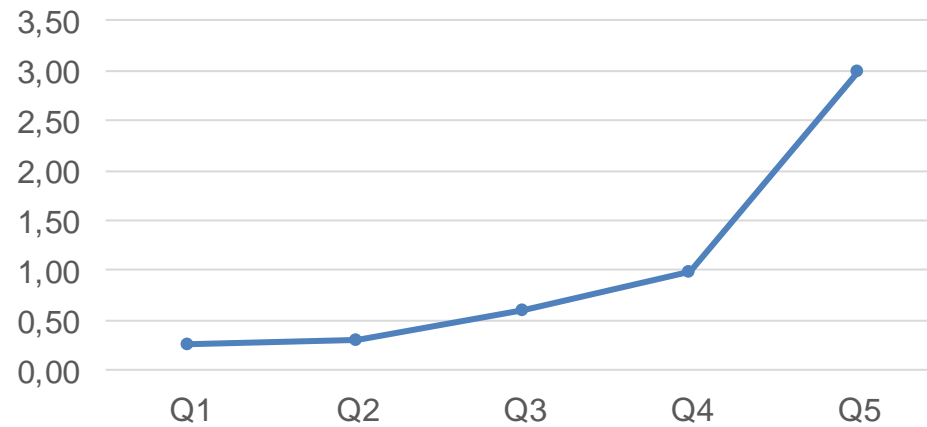
Main results by income quintile

Ratio to average, income elements 2018

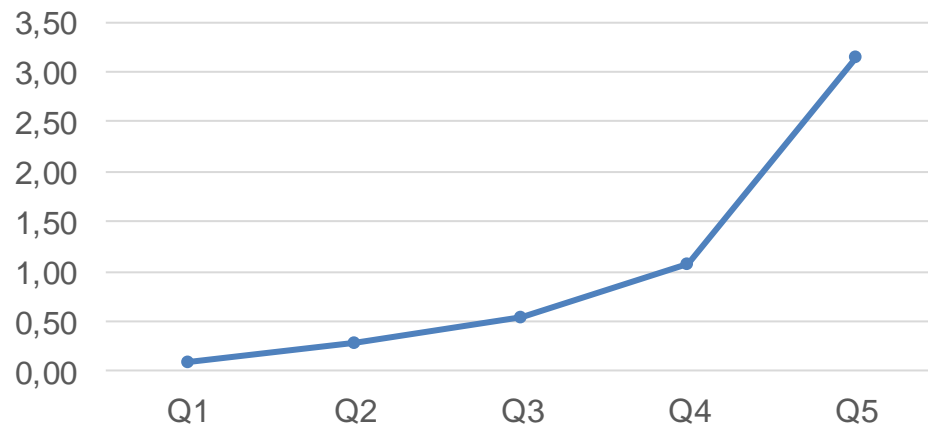
Gross operating surplus



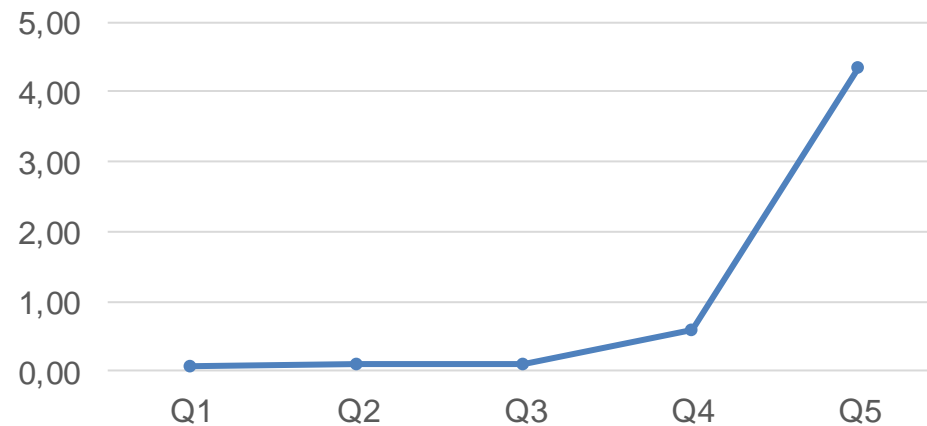
Mixed income



Compensation of employees

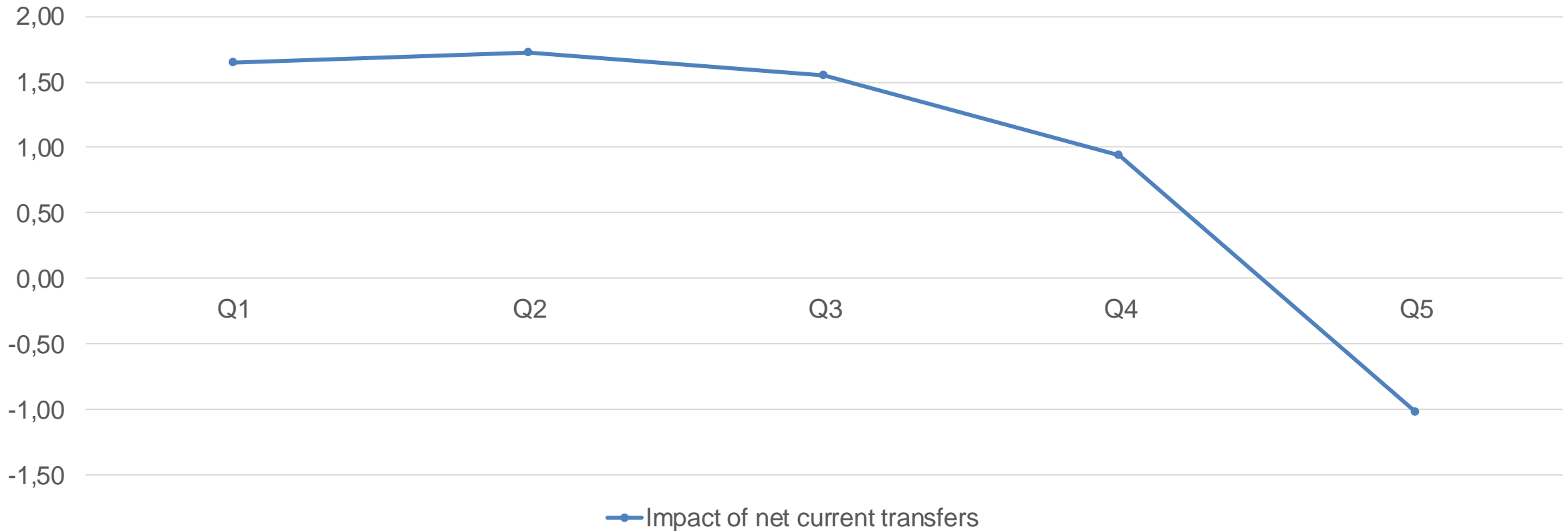


Interest (not adjusted by FISIM)



5 Main results by income quintile

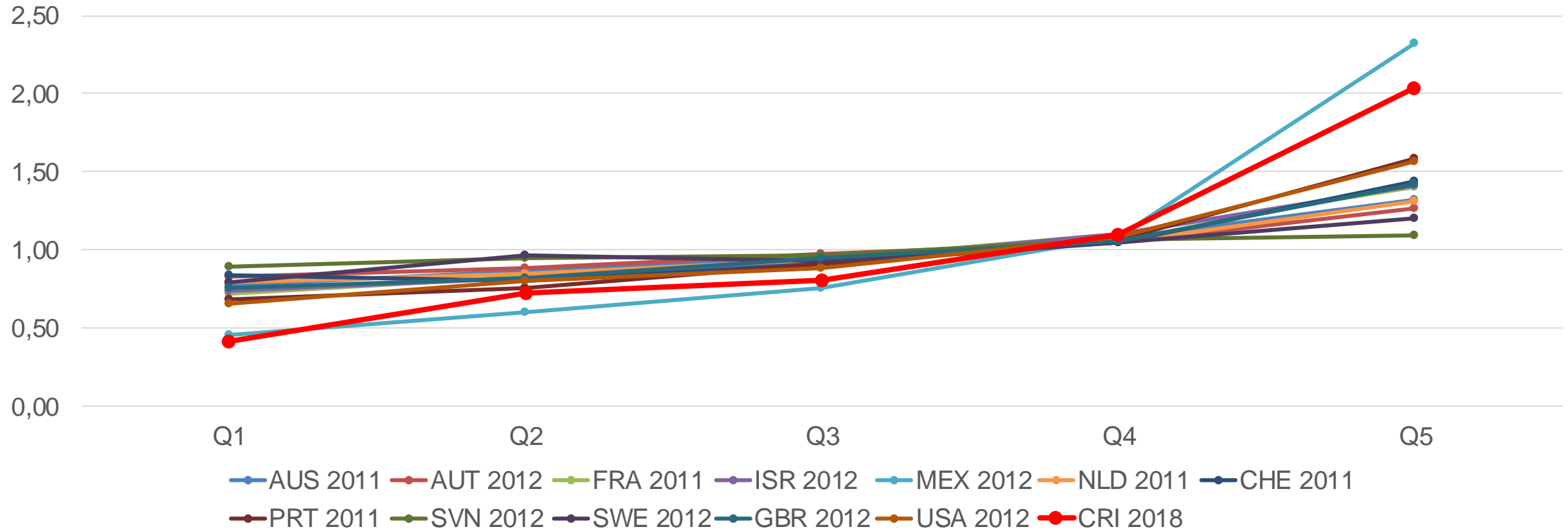
Ratio to average, impact of net current transfers 2018



5

Main results by income quintile

Ratio to average, actual final consumption expenditure

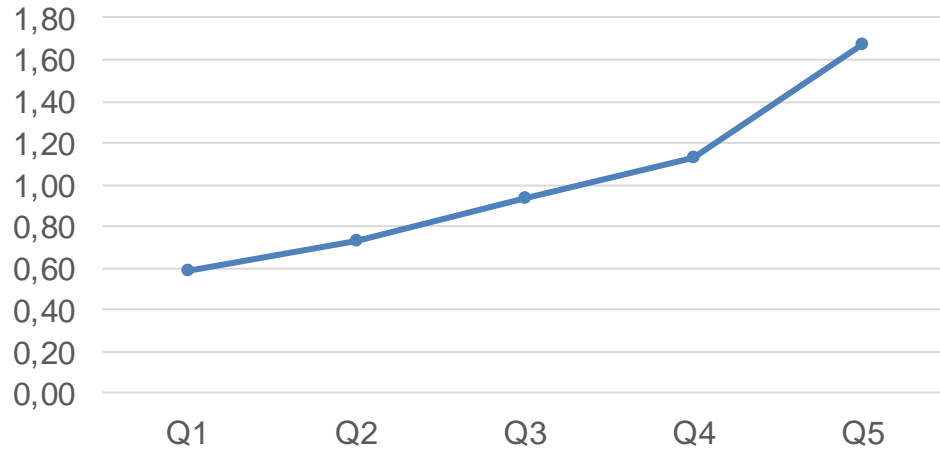


5

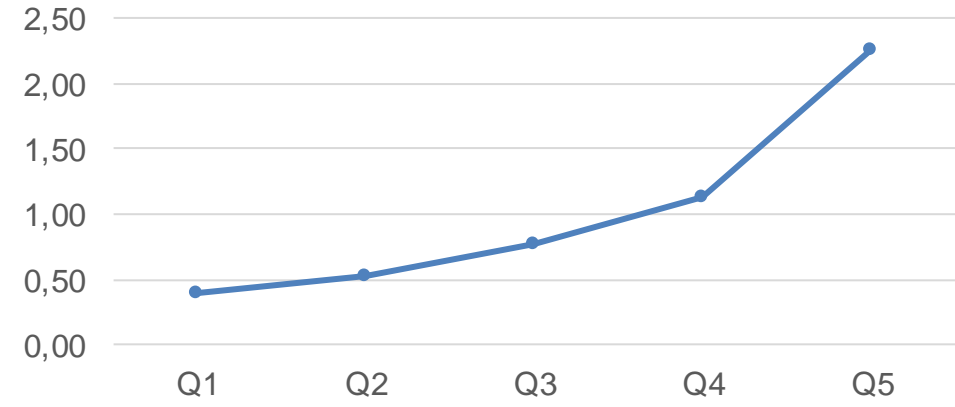
Main results by income quintile

Ratio to average, consumption elements 2018

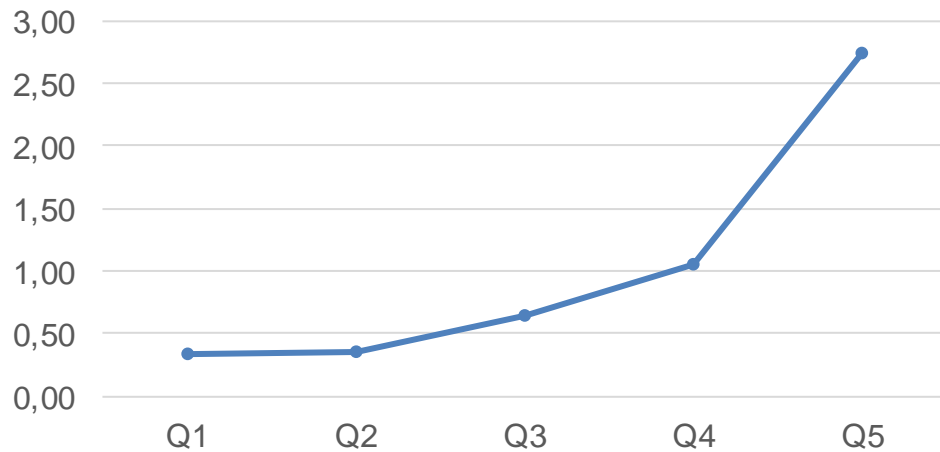
Food and non-alcoholic beverages



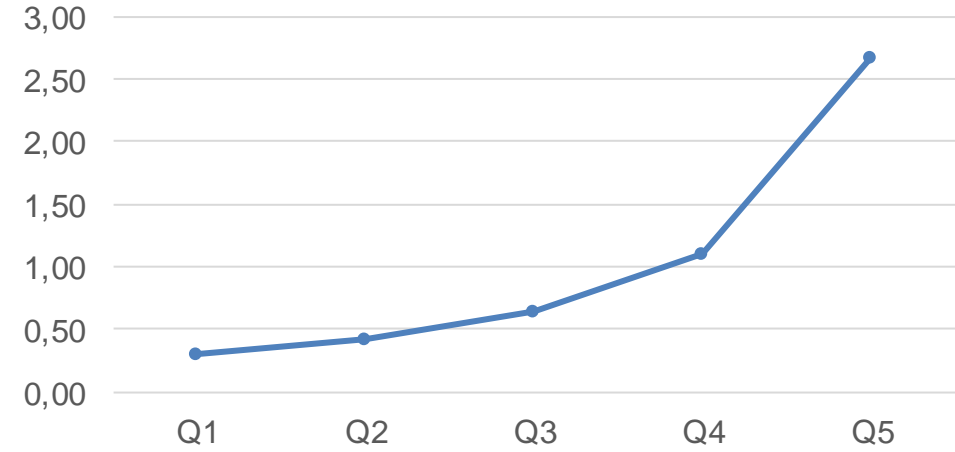
Housing, water, electricity, gas and other fuels



Health



Transport

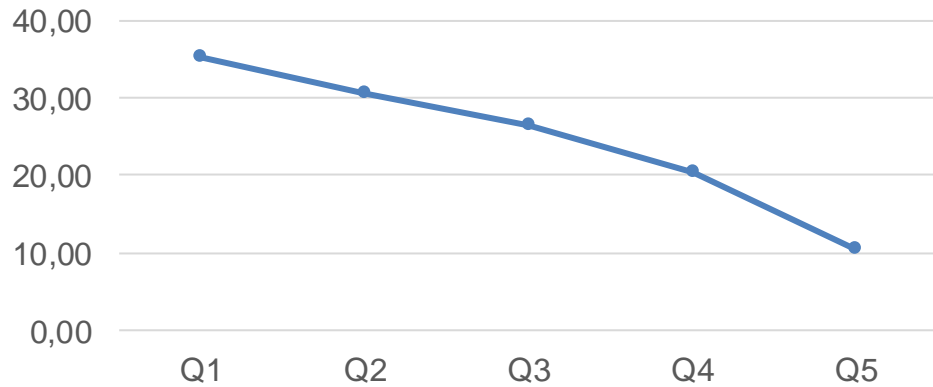


5

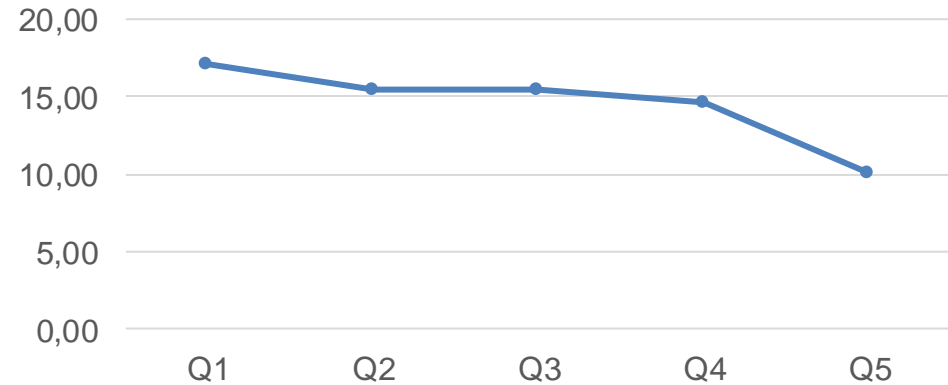
Main results by income quintile

Average propensity to consume (%), consumption elements 2018

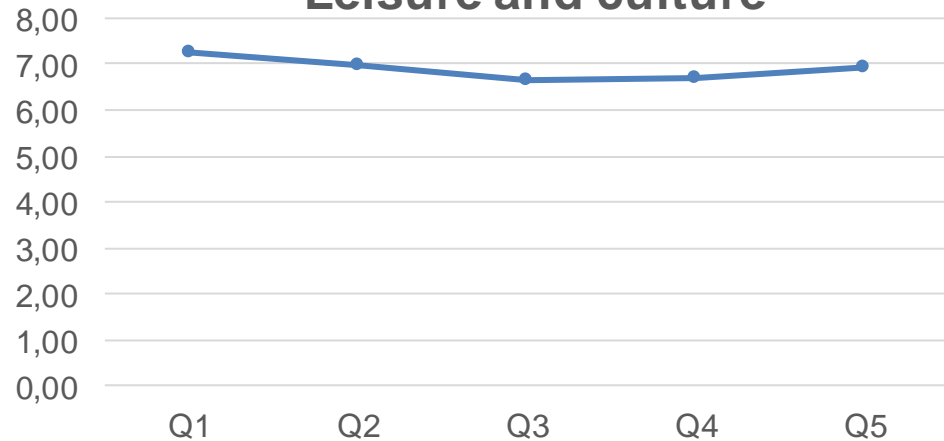
Food and non-alcoholic beverages



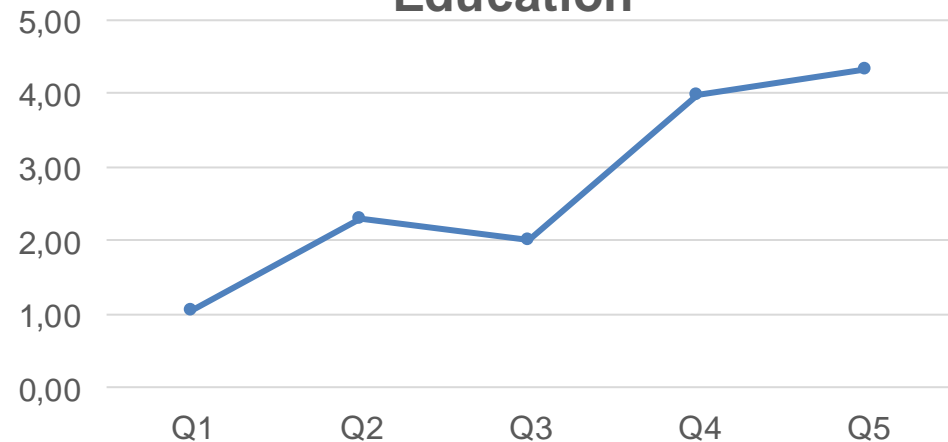
Housing, water, electricity, gas and other fuels



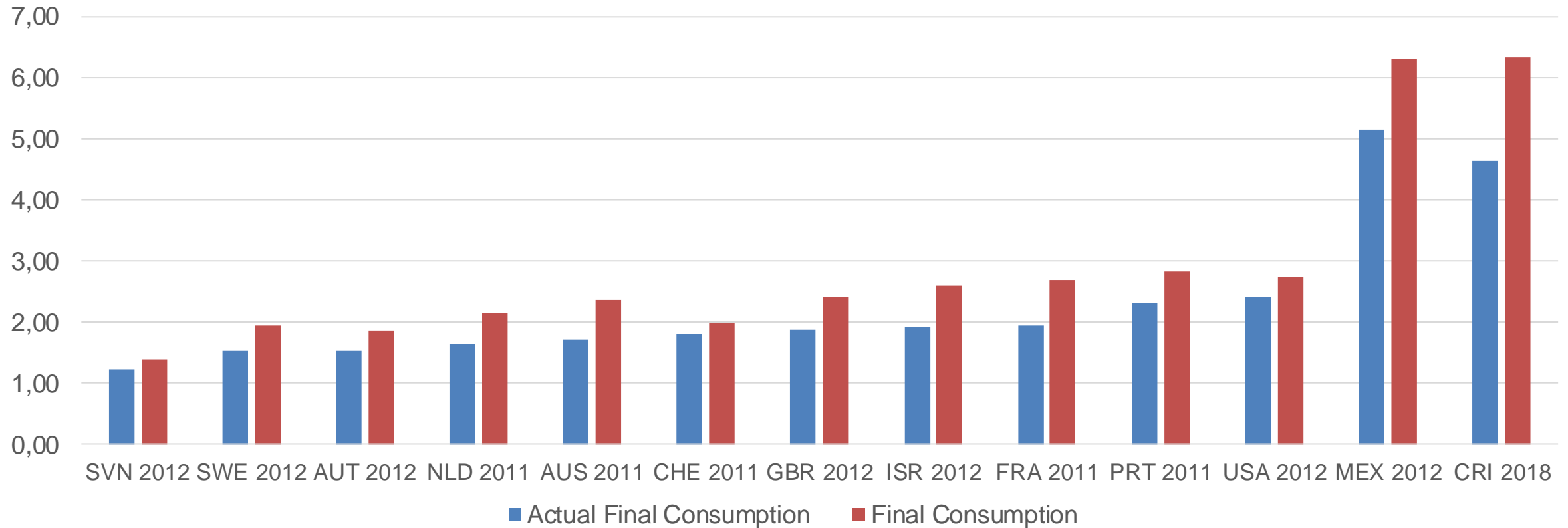
Leisure and culture



Education



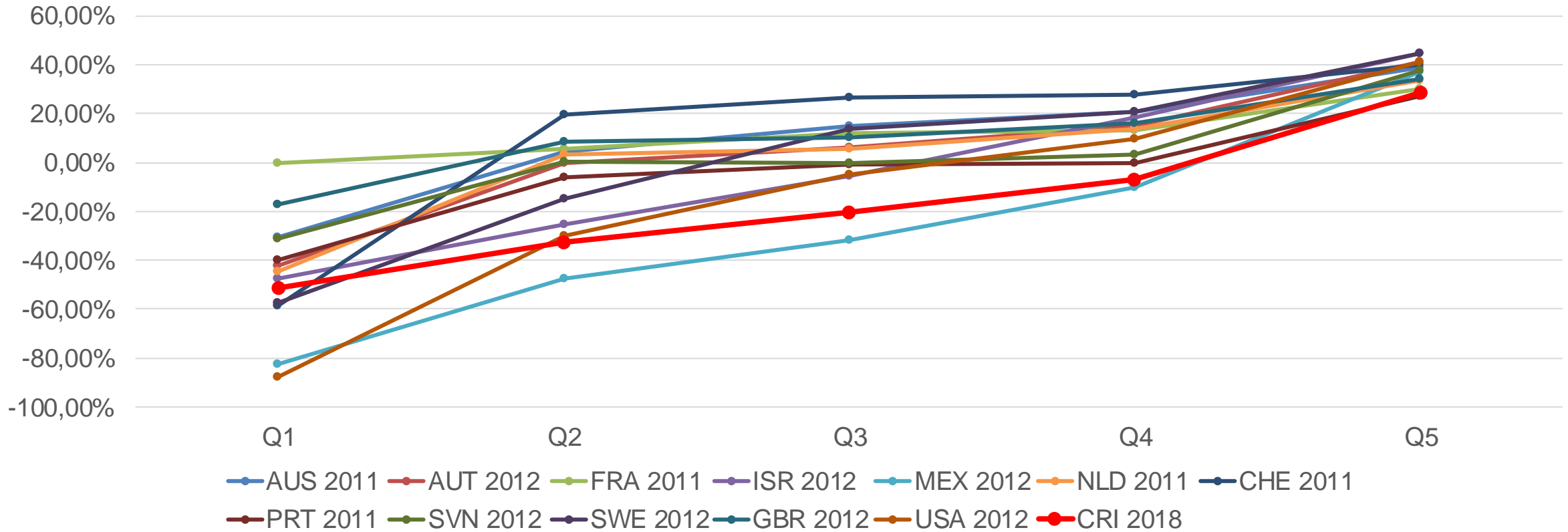
5 Main results by income quintile. Ratio Q5 / Q1 Actual final consumption vs. Final consumption expenditure



5

Main results by income quintile

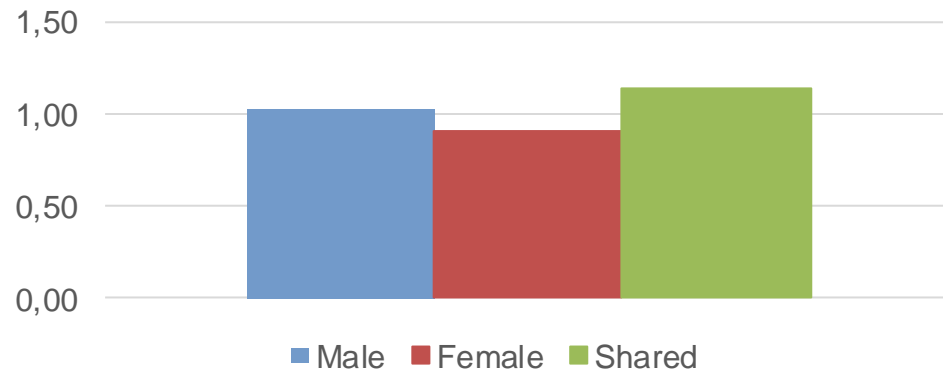
Saving ratio



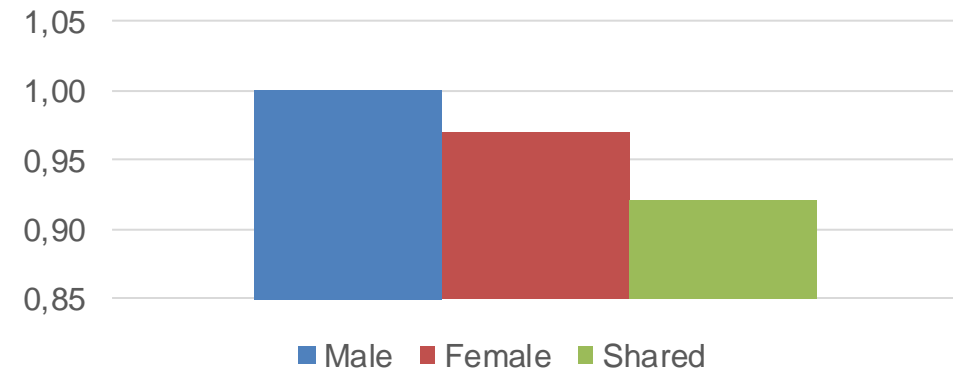
5

Main results by gender of the reference person 2018

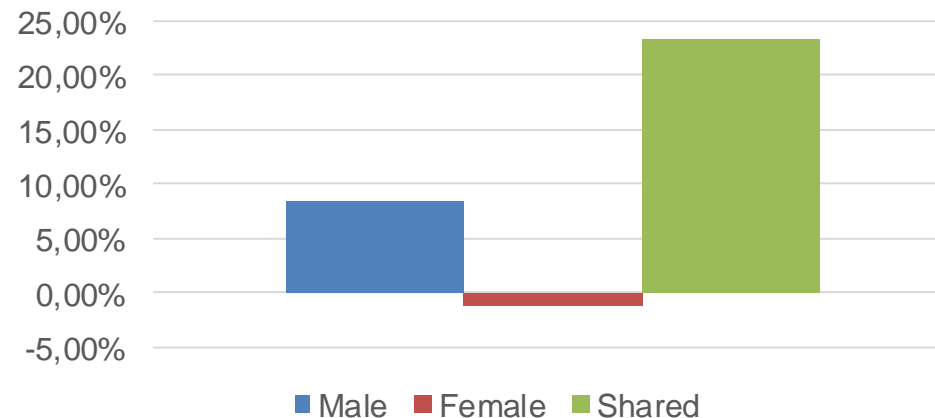
Ratio to average - Adjusted disposable income



Ratio to average - Actual final consumption expenditure



Saving ratio

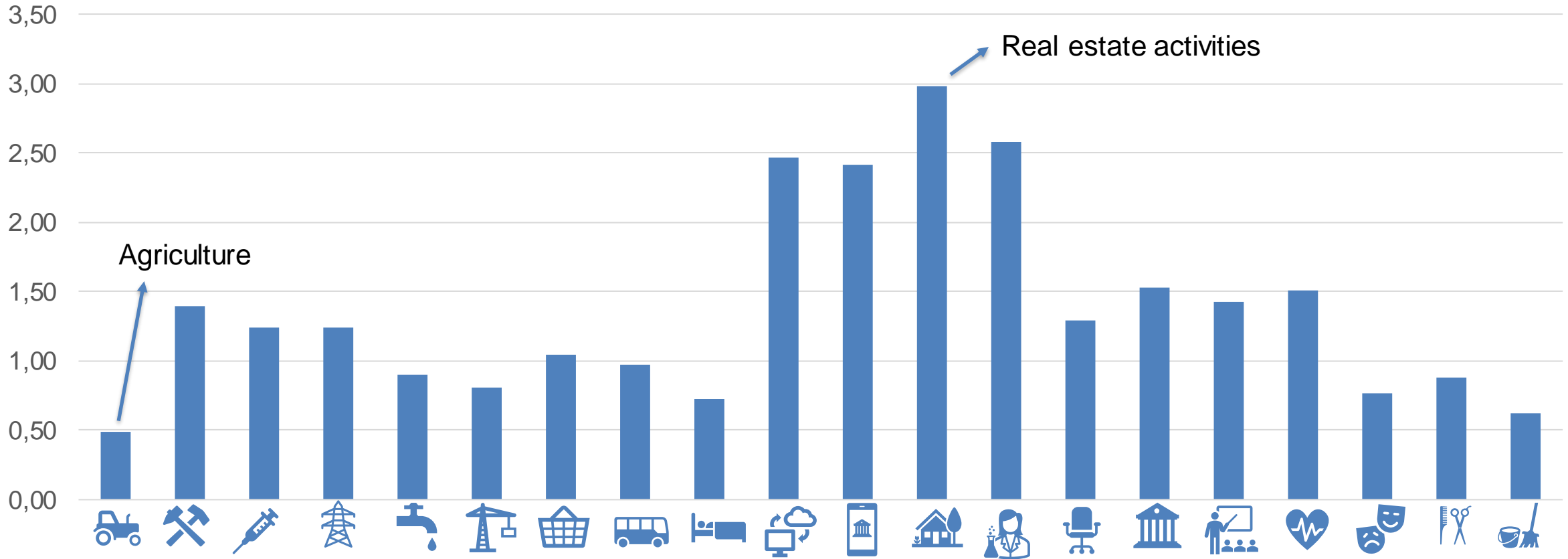


5 Main results by economic activity of reference person

Economic activities considered

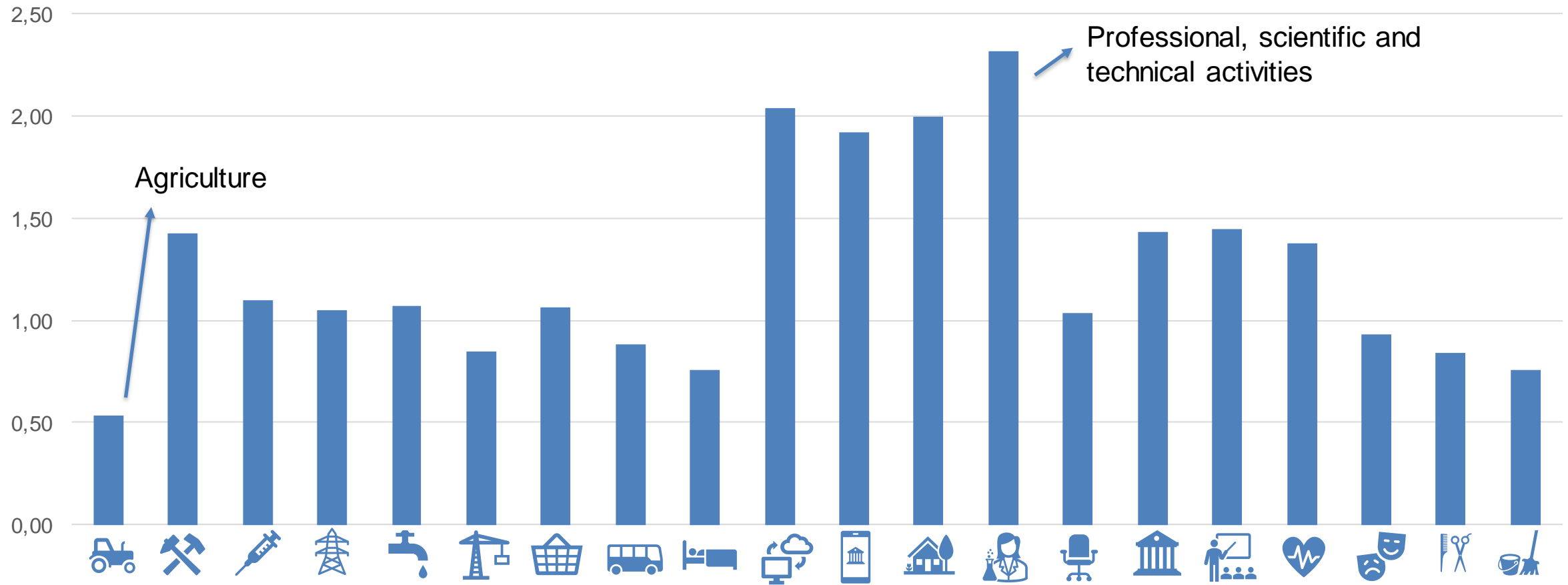
-
-  Agriculture, Livestock, Forestry and Fishing
 -  Mining and quarrying
 -  Manufacturing industries
 -  Supply of electricity, gas, steam and air conditioning.
 -  Water supply, sewage evacuation, management waste and decontamination
 -  Construction
 -  Wholesale and retail trade; vehicle repair of motor vehicles and motorcycles
 -  Transportation and storage
 -  Accommodation and food service activities
 -  Information and communications
 -  Financial and insurance activities
 -  Real estate activities
 -  Professional, scientific and technical activities
 -  Administrative and support service activities
 -  Public administration and defense; social security plans mandatory membership
 -  Teaching
 -  Human health care and social assistance activities
 -  Artistic, entertainment and recreational activities
 -  Other service activities
 -  Activities of households as employers
-

5 Main results by economic activity of reference person Adjusted disposable income 2018, ratio to average.



5

Main results by economic activity of reference person Actual final consumption 2018, ratio to average.



6 Challenges, lessons learned and next steps

- **Sectorial accounts and ENIGH do not refer to the same year.**
 - ❖ Reference year for the accounts was 2017 (latest available year) while ENIGH reference period was 2018.
 - ❖ Results were updated once the accounts for 2018 were available.
 - ❖ Introduce wealth
- **Tried to avoid using structure of aggregates when data on components is missing.**
 - ❖ Favored the use of a combination of survey variables.
 - ❖ Better results in terms of micro-macro gaps.
- **Adjustments needed on both micro and macro sides.**
 - ❖ Outlier households in certain variables such as dividends were eliminated from the study due to their impact.



6 Challenges, lessons learned and next steps

- **Working file structure facilitates the compilation of distributional results.**
 - ❖ Collaboration from NSI and Central Bank's side was critical.
 - ❖ Better results in terms of micro-macro gaps.

Distributive measures in **Costa Rica**

**United Nations Network of Economic Statisticians
Second Beyond GDP Sprint Meeting**

March 24th , 2022

**Gabriela Saborio
Henry Vargas**

The opinions expressed by the presenters do not necessarily represent those of the Central Bank authorities.