You Deserve a Break Today
Optimized Pricing and the Big Mac Index

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TL;DR

Default platform IAP prices for players outside of the USA are too high in all but Switzerland and Norway
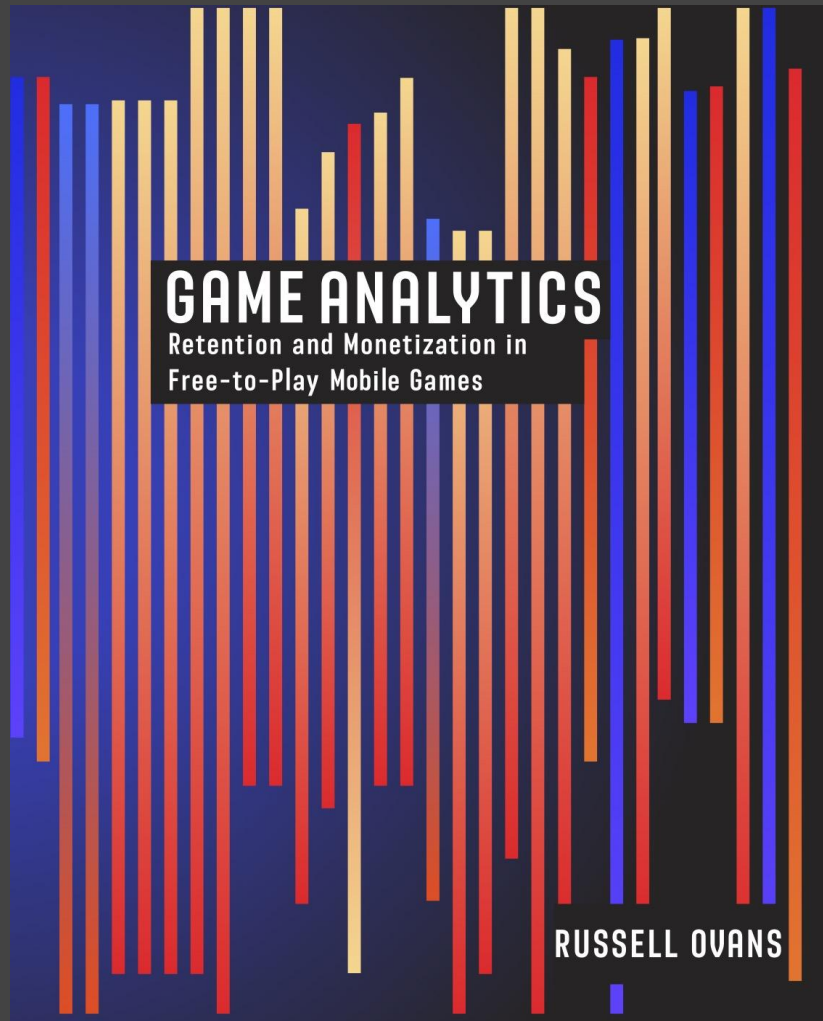
Consider localized pricing on Android to reflect relative consumer purchasing power

- The Big Mac Index is one approach to quantifying purchasing power
- This will lower IAP prices and increase conversion

Then run A/B tests (or paired before-after tests) to maximize revenue

Chapter 11: Optimized Pricing

My book (available on [Amazon](#)) describes the format of the Google Play IAP CSV and an algorithm (no source code) to automate the adjustment of all SKU prices in each geo according to their purchasing power index

In-app products

Offer products for sale in your app for a one-off charge, like extra lives, or access to premium content. Show more

🔍 Search products by name or ID ⬆ Import ⬇ Export

Product name	Product ID	Price	Last updated	Status
Event Global Promo - 02!	com.trailerparkboys.egp	CAD 1.99	Sep 8, 2022	⊘ Active
Special Package	com.trailerparkboys.49.	CAD 67.09	Oct 16, 2023	⊘ Active

The Motivation

Viviana Ramos and her Mexican Android device:

These IAP prices are ridiculous… nobody in Mexico is going to make a purchase.

What does poor global conversion look like?

D7 CVR vs. LTV7 by Geo (Android Only)

Cartesian-space with average LTV7 and average D7 conversion defining the origin.

Four quadrants each indicate different behaviour.
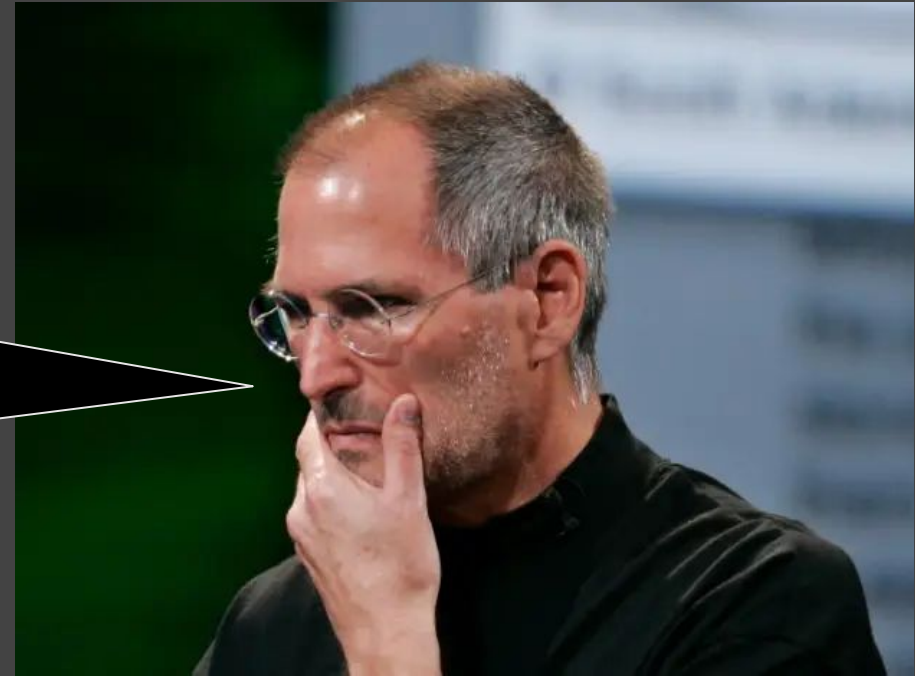
MX is at (0,0): no conversions!

Why Android Only?

This talk does not apply to iOS

Why not iOS? What is WRONG with you people!?!

- Poor international adoption
- Price insensitive consumers

# Objective: Find the IAP prices that maximize revenue in every country

- As a supplier of virtual goods with no cost of delivery, the quantity a freemium game publisher chooses to produce is unlimited and unaffected by price
  - There is no *supply* curve

- Therefore, any sale is one worth making.

- Game players are price sensitive
  - There **is** a *demand* curve
  - But what price point maximizes profit?

This optimization problem is manifest in the following hypothetical demand curve for an IAP SKU at various price points from $1.00 to $5.00.

ECON 101: Microeconomics

"Consumer demand falls as prices rise." – Captain Obvious
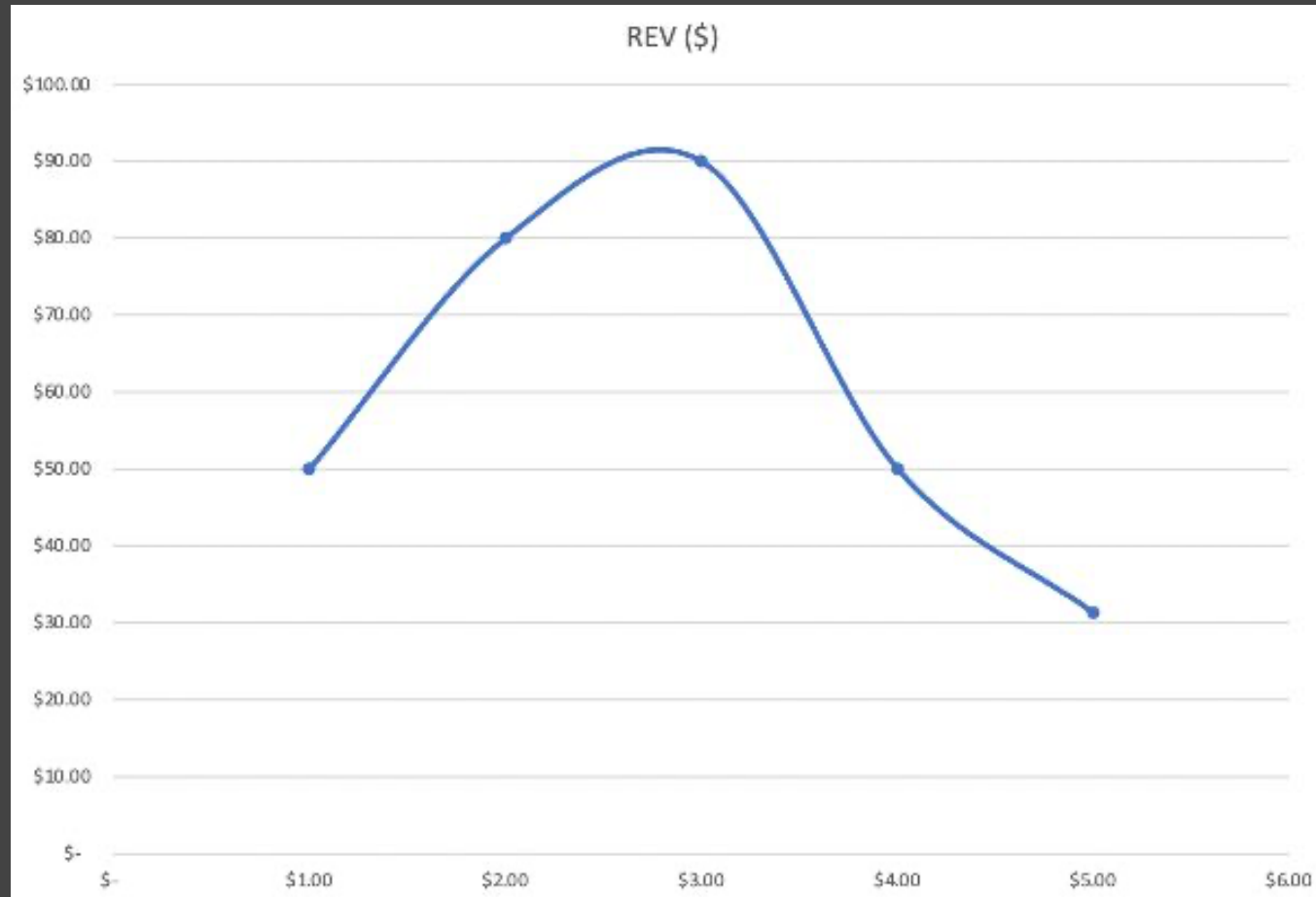

CVR (%) as a Function of Price ($)
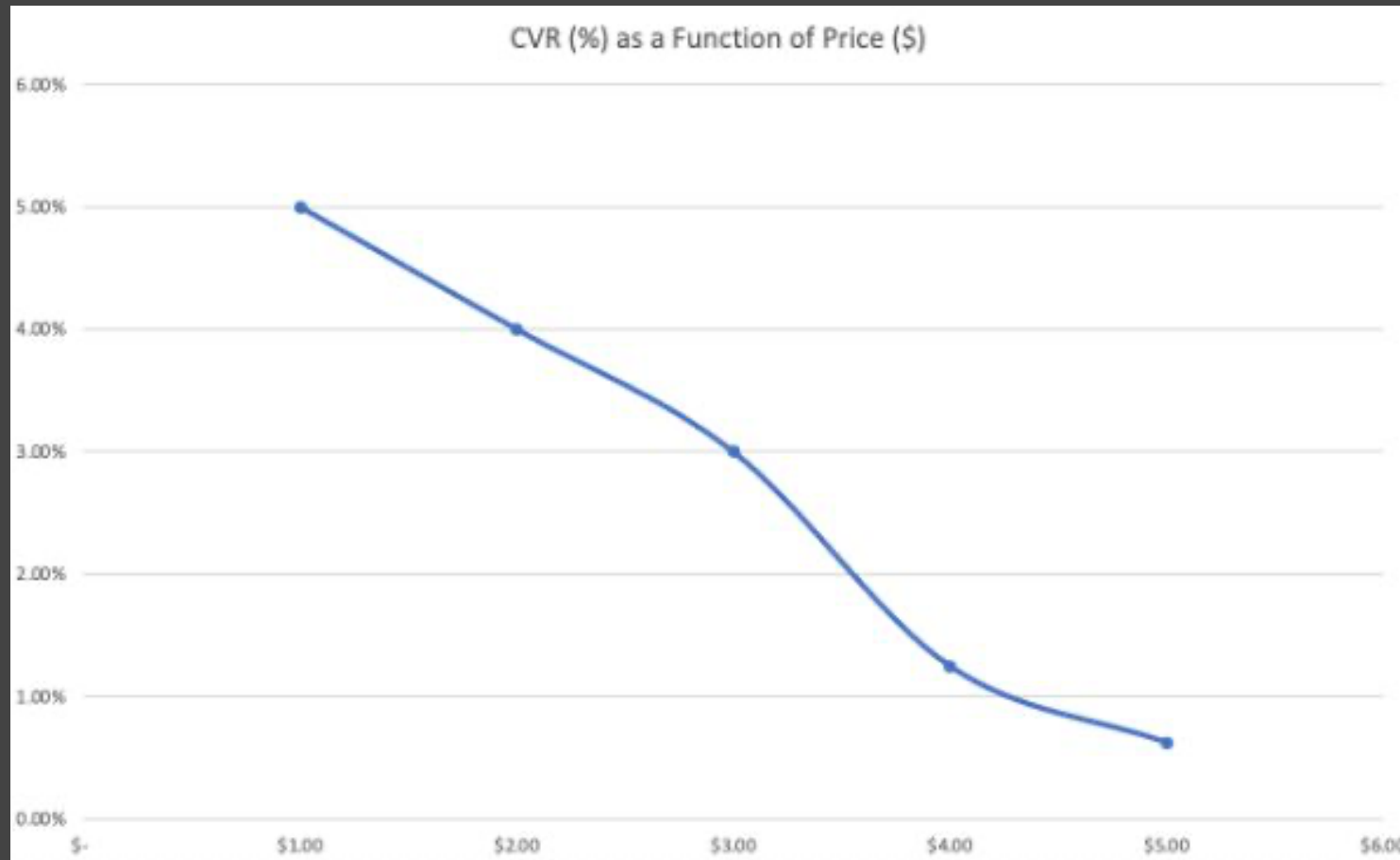
Assuming IAPs are elastic goods

Daily CVR is highest when the SKU is priced at $1.00

ECON 311: Pricing Strategies

"An optimal price maximizes the seller's profit." — Colonel Obvious, Ph.D.

REV ($)

Assuming 1000 DAU:

Daily revenue is higher at the $3.00 price point, despite fewer IAPs

Optimal price is at the inflection point ($2.88)

KPI: LTV*n*

We want to move as many geos as possible up (and to the right):
- Increase LTV (or ARPDAU)

Increasing conversion is easy: lower the price!
- Ideally, CVR is the same in every geo

But as we just saw, optimal revenue does not necessarily occur when conversion is maximized.

Therefore, always test by considering ARPDAU for existing installs, and LTV7/14/30 for new installs.

Why is CVR so low outside of the USA?

The platforms are lazy about IAP pricing.

When you add a SKU to your store, you specify a default price in the currency associated with your account. The platforms simply convert that price from your currency to every other country's currency, and round prices up based on retail conventions (e.g., $3.82 becomes $3.99).

Example, USD $4.99 ➜ CAD $6.99 ➜ MXN $109

But as any economist will tell you, currency conversion rates are not necessarily a good indicator of consumer purchasing power.

Our Marxist Agenda

"IAP prices should reflect the same ratio of a typical worker's average hourly wages, regardless of where they live. If it takes a Starbucks barista in Seattle 20 minutes to earn enough money to buy the $4.99 FTBP, then that same SKU should be priced so that it takes a Guadalajara Starbucks barista 20 minutes to earn enough pesos to also make that purchase. Ditto in Bangkok, Sydney, Cape Town, and Oslo."

- *Game Analytics*, p. 254.

What is the Big Mac Index?

McDonald's has optimized the price of a Big Mac in their restaurants around the world, adjusted for purchasing power

- Each year *The Economist* publishes the Big Mac Index (BMI) for ~55 countries
- Assuming consumer demand for fast food is a reasonable proxy for IAPs, consider price adjustments based on the Big Mac Index.

BMI = (local price of a Big Mac in USD)/(price of a Big Mac in USA)

Example: Philippines = (₱155 = USD$2.75)/($5.15) = 0.53

The Big Mac Index in Action

Assume your FTBP SKU is USD $4.99

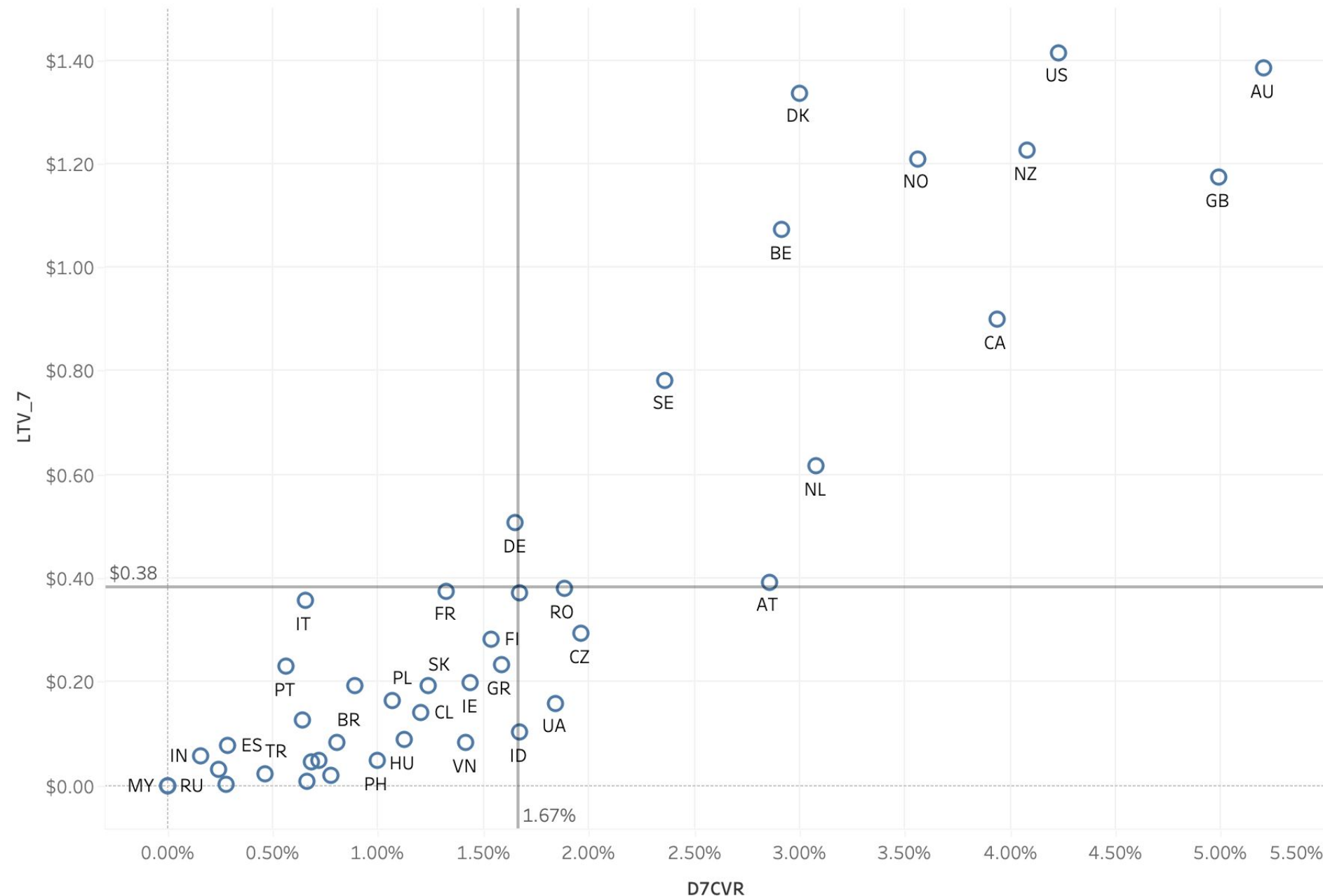| GEO	Google Default Local Price	BMI	BMI Adjusted Local Price	Avg Minimum Wage	Minutes of Min Wage Labour
US	4.99	1.0	4.99	10.50	29
PH	289	0.53	149	76.25	117
CA	6.99	0.92	6.49	15.25	26
MX	109	0.57	59	39.05	90

Prices are arguably still too high in MX and PH, but this is a good start

LTV_7 vs D7CVR: Mature Game with BMI Pricing
Minimum 250 installs/country

This is a good start, but still lots of work to be done here.

CH (3.2%, $2.72) was removed for readability.

PH (1.0%, $0.05)
MX (0.7%, $0.05)
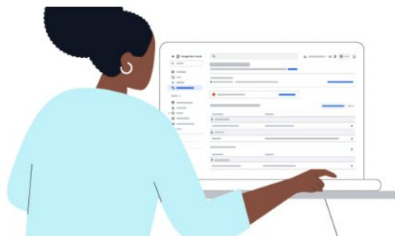
If D7CVR is the same everywhere, what does this look like?

Conduct experiments with Google Play

Run effective price experiments for in-app products

By Play Academy   Published: Jun 6, 2023   10m   Beginner   ☆☆☆☆☆ (11)

♡ Favorites

E-learning Course

Started on October 18, 2023.

LOG IN TO LAUNCH

Localized prices can help you reach more buyers who may have previously been priced out of monetized experiences in apps and games. In this course, you will learn when to use price experiments, how to set up price experiments, and how to analyze the results.

Optimize the BMI for each country

- Lower prices until CVR stops improving and/or LTVn starts to fall
- Admittedly, we have NOT done this (we use wappier's service)