

# Microgiving with Digital Platforms

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## Charitable giving

- Charitable giving is of the most important mechanisms for redistribution
- **Online giving** is rapidly expanding
  - In 2019, 8.7% of total fundraising in U.S. nonprofit sector came from online giving
  - Online sector growth rate = 6.8% (offline growth rate = 1%)

## “Microgiving” in the digital sphere

- A new form giving in online setting is **microgiving**
- Solicit minuscule but recurring donations from a large number of donors
  - Payment round-ups
  - Paycheck round-downs
  - Small donations at shopping check out



Source: [ultiworld](#).

## “Microgiving” in the digital sphere

- A new form giving in online setting is **microgiving**
- Solicit minuscule but recurring donations from a large number of donors
  - Payment round-ups
  - Paycheck round-downs
  - Small donations at shopping check out
- Idea: Many individuals have willingness to make small donations but are hindered by frictions in offline settings
  - High transaction fees
  - Information barriers
  - “Hassle costs”

## This paper

- Scaling up microgiving via integration with **retail platforms** that feature huge amount of transactions
- Evaluate a microgiving program implemented by Alibaba, China's largest online marketplace
  - Sellers can subscribe product(s) to charitable giving of as low as **2 cents per order**
  - Subscribed products earn a **charity label** that is visible to the consumer
  - Donations made **automatically** as transactions occur
- Use internal data from Alibaba to study fundraising **performance** and **mechanisms**

# Outline

- **Background and data**
- Program performance
- Why do sellers give?
- Discussion

## Background: China's charitable sector

- China has a small but growing charitable sector
  - Domestic charitable donations in 2011 = 85 billion yuan
  - 151 billion yuan in 2019
  - 0.15% of GDP (small compared to U.S. charitable sector = 2% of GDP)
- 26% of all donations come from individuals
  - This ratio is 70% in the U.S.
- Donations are concentrated
  - Top 100 firms made 23% of all business donations
  - Top 100 individuals made 48% of all individual donations

## Background: China's online charitable sector

- Online giving became popular since early 2010s
- In 2016, first gov law requires all charitable fundraisers to be hosted by one of the 11 designated platforms
  - Ex: Tencent, Sina, Alibaba
- 2018 statistics:
  - >21,000 fundraising projects from 1,400 charitable foundations were on online platforms
  - Attracted a total of 8.5 billion clicks (10 clicks per internet user)
  - Raised 3 billion yuan of funds (0.37 yuan per click)

## Background: Alibaba's microgiving program

- Implemented on Alibaba's retail platform
  - China's largest online marketplace
  - Contains a C2C (taobao.com) and a B2C segment (tmall.com)
  - Transaction volume in 2017 = 3 trillion yuan (3.7% of GDP; 10% of consumer spending)
  - Monthly active user base in 2017 = 500 million people (36% of population)
- In 2006, Alibaba set up the first microgiving program to help Zhou Lihong
  - Single mom of a 5yo, diagnosed of end-stage cancer
  - The program turned out to be a huge success
- We use the phonetic abbreviation “**gong-yi-bao-bei**”, or **gybb**, to refer to the program

## Background: Alibaba's microgiving program

- Alibaba uses a stringent **vetting process** to determine eligible charities
  - Separate budgeting & book-keeping
  - Additional third-party auditing
  - Various rules about how much money can be raised
  - Revelation of any relevant partnerships and business relationships
  - Most eligible projects are operated by the largest charitable foundations in China

## Background: Alibaba's microgiving program

- **Subscribing products to gybb**

1. Selects which product(s) to link to gybb
2. Selects which charitable projects to contribute to
3. Selects contribution amount (minimum 0.02 yuan per transaction, or 0.1% of transaction value)

- Donations made automatically as transactions occur

- Can cancel subscription at any time

## Example seller interface: gybb subscription steps

The screenshot shows a multi-step process for subscribing a product for Gybb. The interface is in Chinese and includes various filters and selection options.

**Step 1: Product Selection**

The top section shows filters for product details:

- 商品标题 (Product Title)
- 商品ID (Product ID)
- 商家编码 (Merchant Code)
- 价格 (Price)
- 一级类目 (Primary Category)
- 店铺分类 (Store Classification)
- 宝贝类型 (Product Type)
- 销量 (Sales Volume)

Buttons for 查询 (Search) and 设置 (Settings) are present. Below the filters, there are tabs for 全部宝贝 (All Products), 出售中的宝贝 (Products for Sale), and 仓库中的宝贝 (Products in Warehouse). A red box highlights the 公益宝贝 (Public Good Product) tab, with an arrow pointing to it and the text "Select 'GYBB'".

The main table lists products with columns for 商品名称 (Product Name), 价格 (Price), 库存 (Inventory), 销量 (Sales), 创建时间 (Creation Time), 发布开始时间 (Release Start Time), and 操作 (Action). A red box highlights a checkbox in the first row, with an arrow pointing to it and the text "Select item".

**Step 2: Charity Project Selection**

The second section is titled "请选择公益项目" (Please select a public good project). It shows a list of projects with a red box around the "疾病/灾害救助" (Disease/Disaster Relief) category, with an arrow pointing to it and the text "Select a charity project".

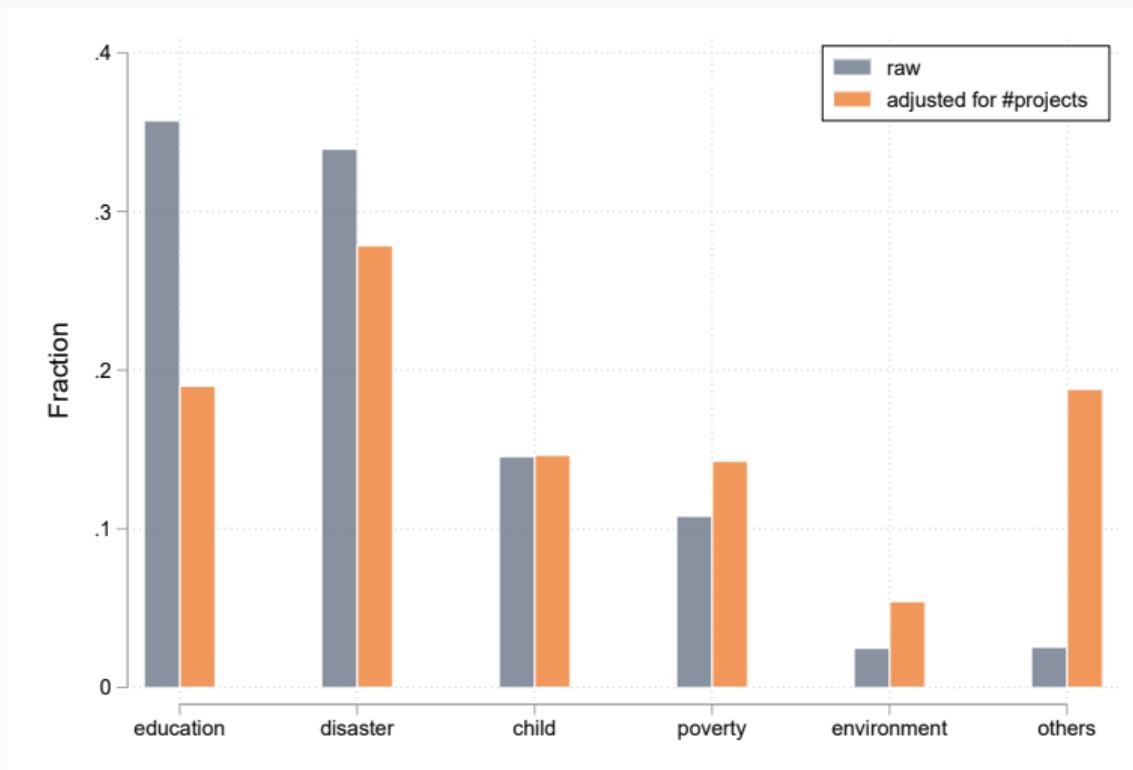
**Step 3: Donation Method Selection**

The third section is titled "请选择捐款方式" (Please select a donation method). It shows options for 按成交额百分比捐款 (Donate by percentage of transaction amount) and 按固定金额捐款 (Donate by fixed amount). A red box highlights the "按固定金额捐款" option, with an arrow pointing to it and the text "Select donation amount".

Below this, there are radio buttons for "选择固定金额 (人民币):" with options for 0.02元, 0.1元, and 1元.

Source: Examples of seller interface when subscribing a product for gybb.

## Distribution of subscription choices by charity classification



Source: This figure plots the distribution of gybb funds by the receiving charitable foundation's classification. Gray bars show raw distribution. Orange bars show the distribution after re-weighted by the number of charity projects listed on gybb.

## Background: Alibaba's microgiving program

- **Consumer interface**

- Gybb products earn a charity label on the product search page
- An explainer of the linked charitable project

- Consumers can add “gybb-linked products” as a filter criterion when shopping

## Example consumer interface: A product with gybb contribution



Source: Example screenshots of the consumer interface. Left panel shows the product's basic information. Right panel shows additional details about the charitable foundation that will receive the donation.

## Example consumer interface: Product filters



Source: An example of consumer interface when filtering products on Alibaba. The “gybb product” filter can be seen at the middle of screen.

## Background: Alibaba's microgiving program

- **Tax implications**

- In principle, donations made through the gybb program are tax deductible
- In practice, negligible quantity: vast majority of sellers donated <0.4% of revenues
- Online sellers with annual revenues of less than 0.36 million are exempted from tax anyways
- Our interview with a large charitable foundation suggests requests for receipts are indeed very rare

# Data

- **Basis:** De-identified universe of Alibaba's sales records from 2018-2020
  - Each obs is a sales event: a product offered by a seller was sold to a consumer and when
- **Extracts:**
  - A random sample of 400,000 sellers with  $\geq 1$  product subscribed to gybb between 2018-2020
  - The universe of their sales records
  - Transaction history of all consumers who ever bought their products
  - Seller's own consumption records
- **Consumer privacy**
  - All analysis scripts were submitted to and executed by a data scientist of Alibaba
  - We observe analysis logfiles s.t. privacy screening
  - Data scientist himself sees scrambled consumer identifier

# Outline

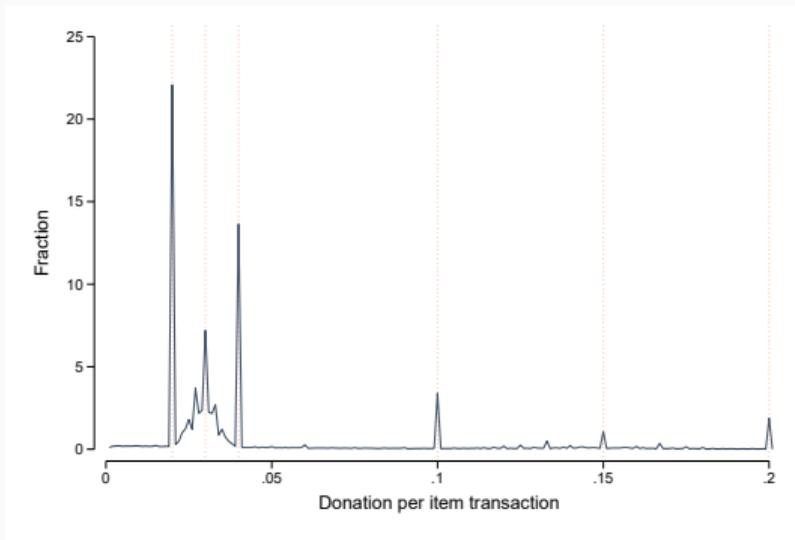
- Introduction
- Background and data
- **Program performance**
  1. Total funds raised
  2. Comparison to other fundraising platforms
  3. Comparison to alternative fundraising method
- Donor motivation
- Consumer preferences

# 1. Fundraising outcomes

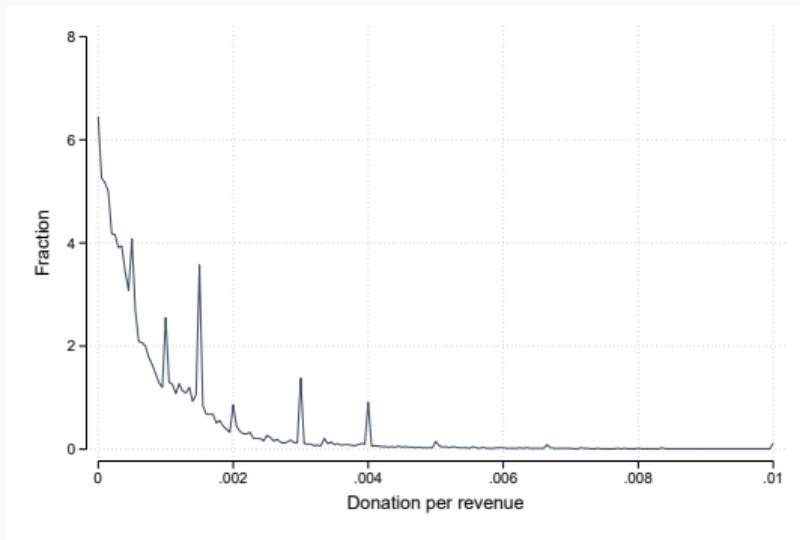
- Universally small contribution per capita
  - Median contribution = 0.0005 yuan per yuan revenue (i.e., 0.05% of revenue)
  - For > 95% of participants, donation < 0.4% revenue
- Large overall outcome
  - Generated over 1.2 billion yuan of charitable funds between 2018-2020
  - Jack Ma personal donation in 2020 = 1.1 billion yuan
  - National donation from top-100 individuals in 2020 = 18 billion yuan

## Product-level distribution of donation rate

A. Donation per item

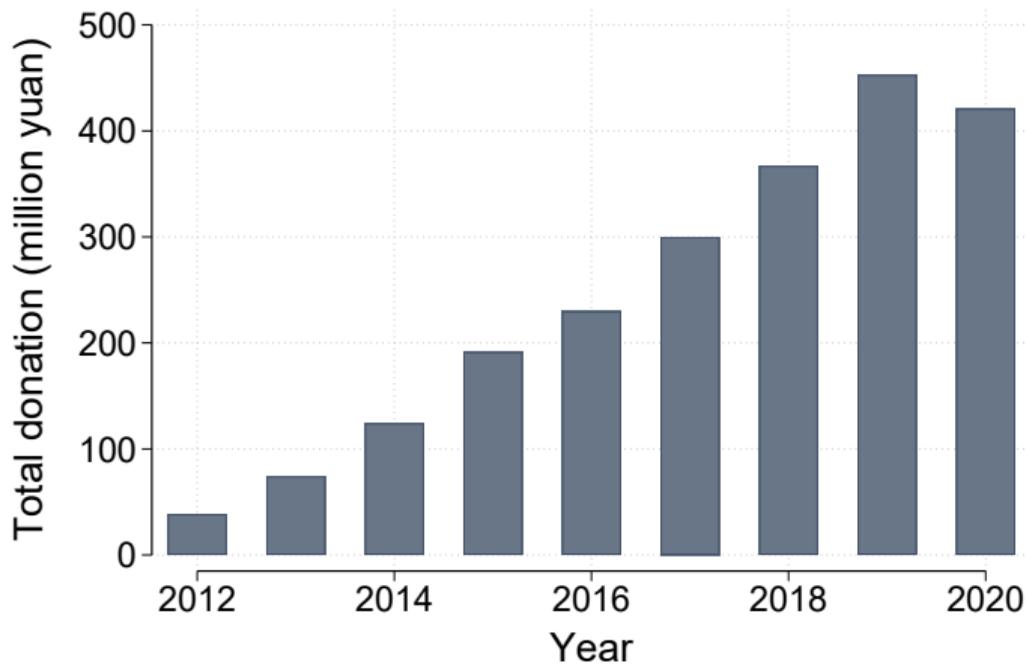


B. Donation per revenue



Notes: (A) plots distribution of donation per transaction among all gybb products up to value 0.2 yuan per transaction. Vertical dashed lines mark values of 0.02, 0.03, 0.04, 0.1, 0.15, and 0.2 yuan. (B) plots distribution of donation per unit (yuan) of revenue among all gybb products. The median is 0.0005 yuan per yuan revenue (mean=0.0017 yuan).

## Total charitable funds generated



Notes: Annual total platform-wide donation from the gybb program.

# 1. Fundraising outcomes

- Universally small contribution per capita
  - Median contribution = 0.0005 yuan per yuan revenue (i.e., 0.05% of revenue)
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- Large overall outcome
  - Generated over 1.2 billion yuan of charitable funds between 2018-2020
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## 2. Comparison with other fundraising platforms

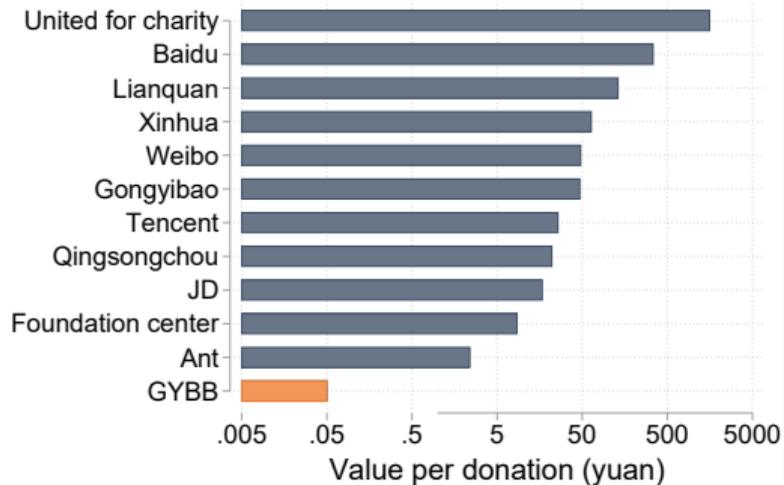
- **gybb**'s approach is one-of-a-kind in China's online fundraising sphere
  - Sales linkage, minuscule donation quantity, automation, seller incentive
- While most other programs do the usual thing
  - Advertisements, reasonable donation quantity, solicit one-off donations from consumers

## 2. Comparison with other fundraising platforms

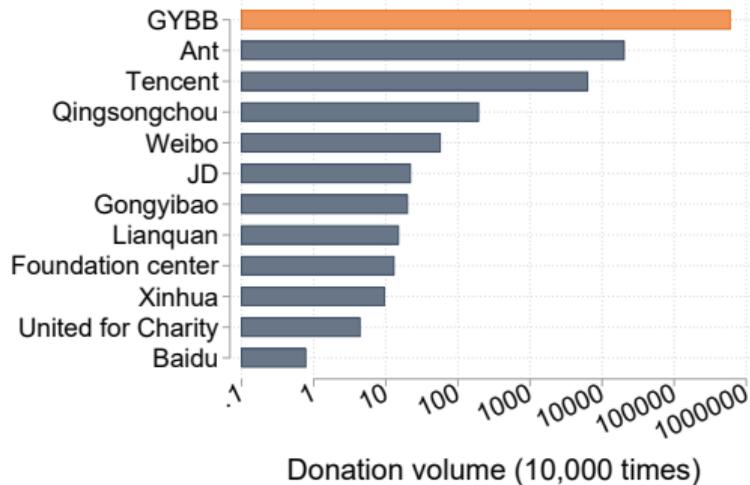
- **gybb** seems to get the economics literature right:
  - **Lower expected donation** → **more donors**: Karlan & List (2007); Meier (2007); Spencer et al. (2008); List (2011); Meer (2014)
  - **Defaults work**: Edwards & List (2014); Goswami & Urminsky (2016); Altmann et al. (2019)
  - **Being asked is a pain**: DellaVigna, List, Malmendier (2012); Andreoni, Rao, Trachtman (2017)
  - **Cultivating recurring donation is hard**: Ryzhov, Han, Bradic (2016); Blackbaud (2019)
  - **Subscription is a good customer retention tool**: Danaher (2002)
- We compare gybb performance with all 11 other online platforms eligible for hosting online fundraising in China

## Comparison with all 11 other online fundraising platforms

### A. Value per donation

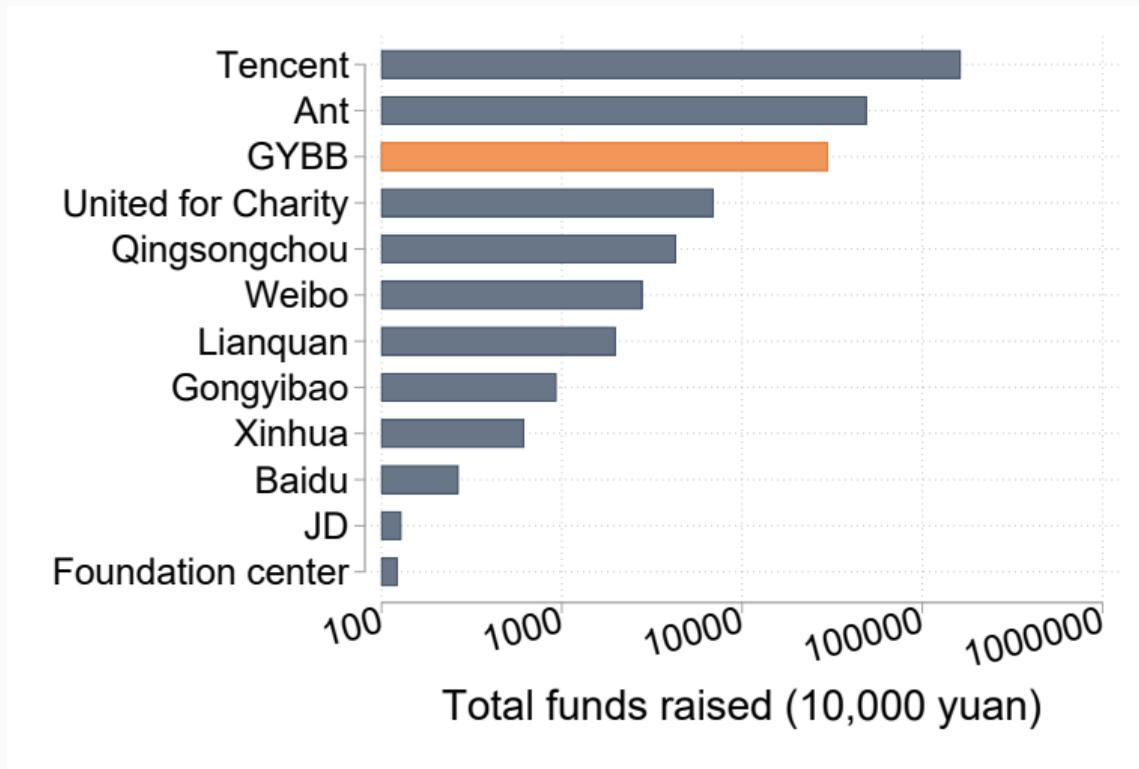


### B. Donation volume



Notes: Data are sourced from China Philanthropy Times and reflect conditions in year 2017. Panel A plots average value per donation. Panel B plots total donation volume of the year.

## Comparison with all 11 other online fundraising platforms



Notes: Data are sourced from China Philanthropy Times and reflect conditions in year 2017. Total charitable funds raised

### 3. Comparison with Alibaba's own solicitation-based program

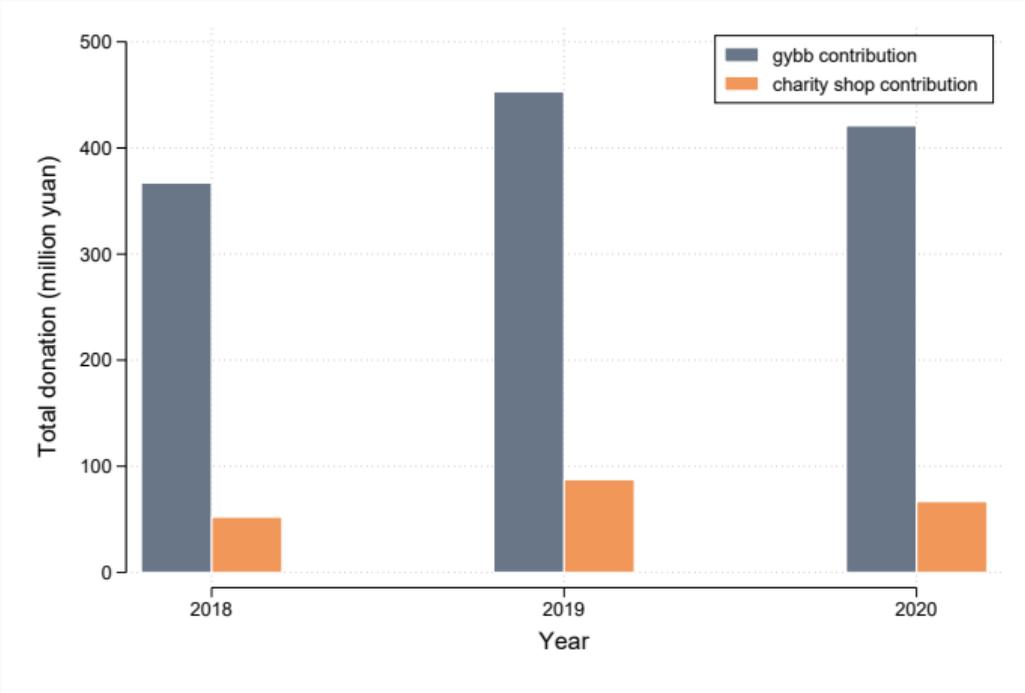
- Alibaba has its own “traditional” online fundraiser called **Online Charity Stores** program
  - Charities operate “stores” on Alibaba
  - Rather than selling goods, they advertise charitable projects, and take consumer payments as donations
- Differences from **gybb** microgiving:
  - Minimum donation = 1 yuan
  - Requires active donations from consumers
  - Consumers do not receive any explicit recognition for donating

## Example consumer interface: Alibaba Charity Store (conventional fundraising method)



Source: : Example screenshots of the consumer interface. Left panel shows a list of charity stores. Right panel shows more details about one particular charity store.

# Comparison with Alibaba Charity Stores program: Total contributions



Source: : \* "all consumers" include all consumers who ever made any purchases from any sellers in the Product-Buyer File. "charity shop contributors" include the universe of consumers who contributed to Alibaba charity stores between 2018-2020. "gybb contributors" include all gybb sellers in our study sample.

# Outline

- Introduction
- Background and data
- Program performance
- **Why do sellers give?**
  1. Seller's subscription decision is revenue-seeking
  2. Does charity subscription really improve revenue?
  3. The “warm glow” of microgiving
- Discussion

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# 1. Strategic motives of charity subscription

- Charitable actions can sometimes be driven by **revenue-seeking motives**
  - Linking products to charity may provide a **charity premium** (Elfenbein & McManus, 2010; Leszczyc & Rothkopf, 2010; McManus & Bennet, 2011)
  - Elfenbein, Fisman, McManus (2012) analyzes eBay's Giving Works program where sellers can choose to donate 10%-100% of product auction revenue
  - Finds evidence that sellers use charity linkage to signal product quality, especially for new sellers with short sales history
- In microgiving, charity subscription's **signaling value is likely minimal** because the cost of signaling  $\approx 0$

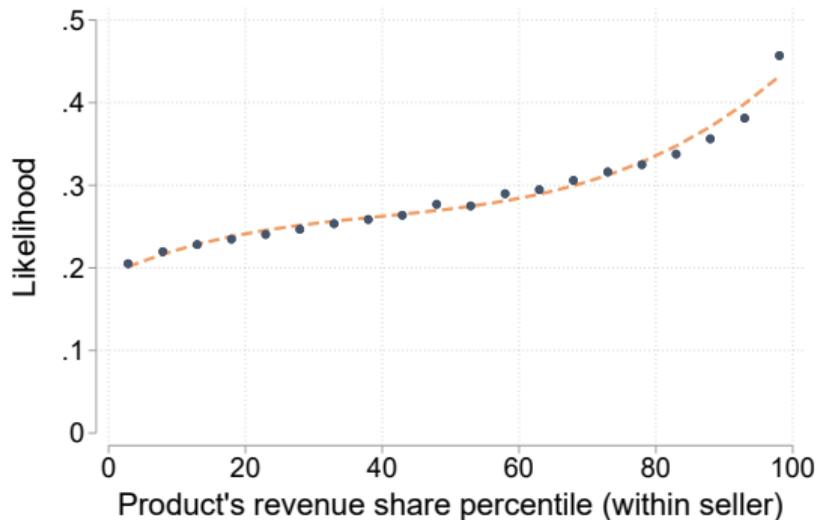
# 1. Strategic motives of charity subscription

- We present four pieces of evidence suggesting seller's **decision to subscribe to gybb** is strategic
  1. Cross section-wise, sellers subscribe products that were already popular
  2. Timing-wise, sellers began price-promoting the gybb product immediately after subscription
  3. More promotions are placed on more popular gybb subscriber products
  4. Surge in gybb subscription during online shopping holidays

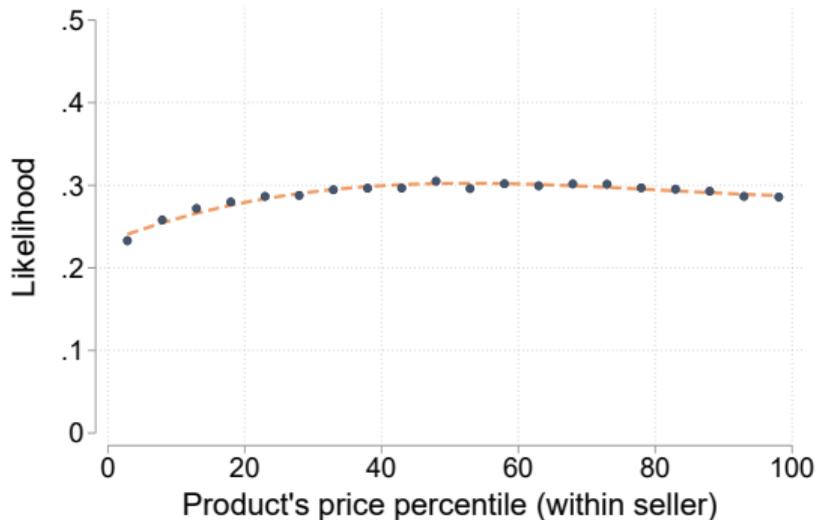
## What products do sellers link to charity:

Subscription concentrates among products that already sold very well

A. By product's revenue share



B. By product's "price"



Notes: Left panel shows likelihood of a product's gybb participation as a function of its ranking of revenue share for the seller; 100 means the product brings the most revenue among all products of the seller. Right panels shows likelihood of a product's gybb participation as a function of its average price (measured by revenue per transaction); 100 means the product is the most expensive product offered by the seller.

# 1. Strategic motives of charity subscription

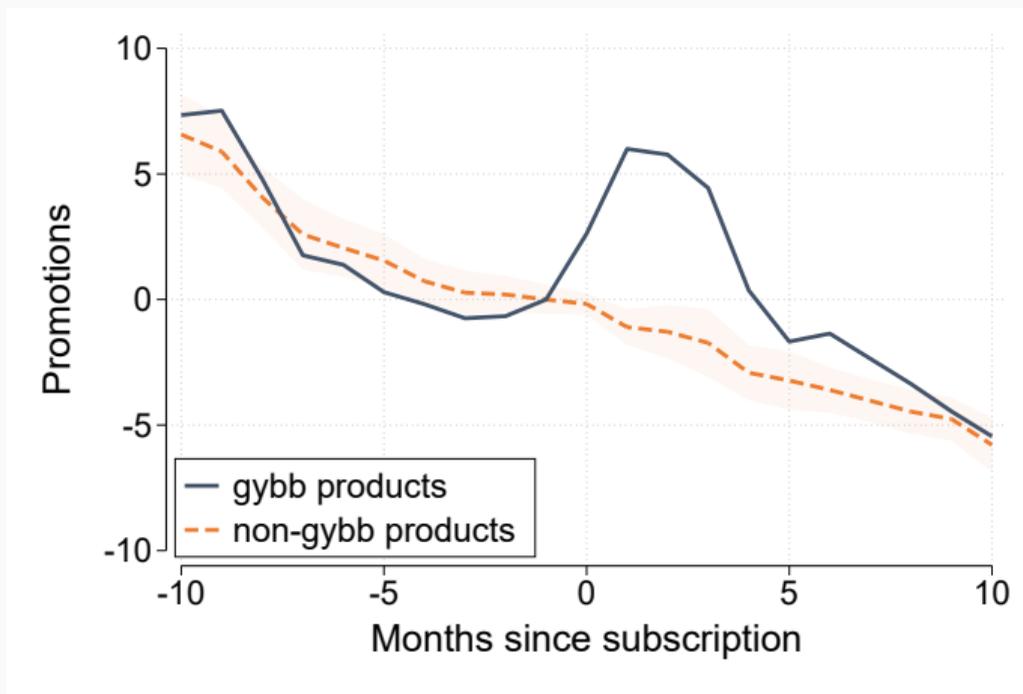
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## Strategic timing: Econometrics

- **Goal:** characterize changes in sales activities (pricing changes in particular) before and after a product began gybb subscription
- Consider two groups of products
  - **Switchers products:** products that sellers subscribed to gybb at some point
  - **Comparison products:** non-switcher products from the same seller
- **Key outcome:** Number of intra-month price changes, which we call “promotions”
  - Mostly in the form of price cuts and digital coupons

## Sellers' timing for charity subscription is strategic:

Change in product's price promotion before/after gybb subscription



Source: Trends in product's intra-month price promotions. For both gybb and non-gybb groups, we restrict to active products that already had sales at or earlier than 10 months before event time 0. Regressions are run separately for gybb and non-gybb groups, and include no fixed effects control variables. Shaded areas show 95% CI constructed using standard errors clustered at the seller level.

## Strategic timing: Econometrics

- **Panel estimation equation:** differential promoting activities for gybb switcher products

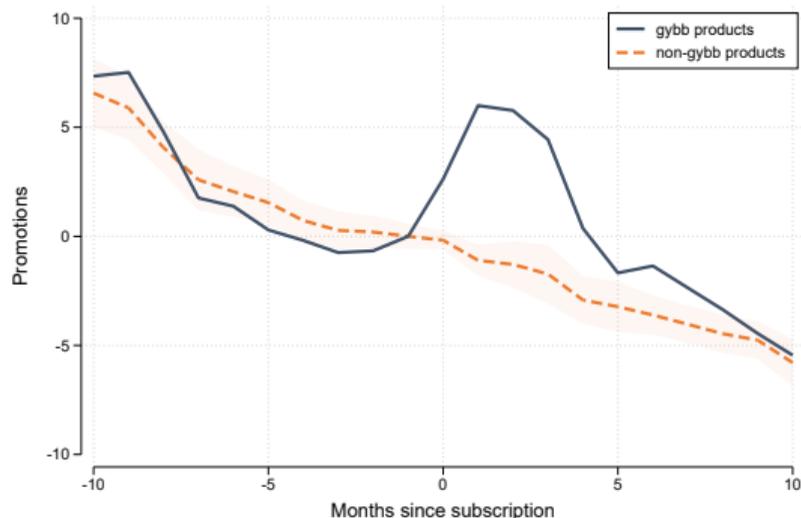
$$Y_{it} = \alpha + \beta \cdot 1(\text{gybb})_i \times 1(\text{post})_t + 1(\text{gybb})_i + 1(\text{post})_t + \text{ctrls}_{it} + \varepsilon_{it}$$

- $1(\text{gybb})_i$  : dummy for switcher products
- $1(\text{post})_t$  : dummy for post-switching periods
- $\text{ctrls}_{it}$  : different choices of FEs
  - no controls
  - product FEs
  - product FEs, month-of-year FEs
  - product FEs, month-of-sample FEs, switcher-comparison group FEs
- Cluster SEs at the seller level

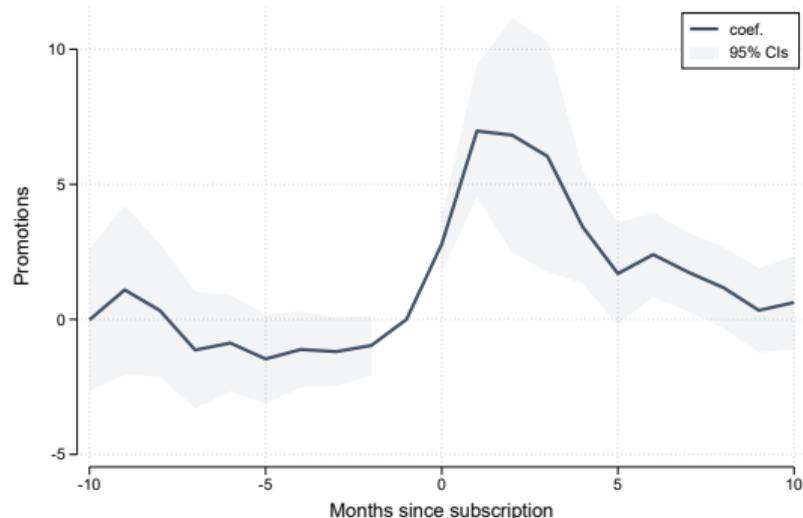
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Change in product's price promotion before/after gybb subscription

A. Raw trends



B. DID

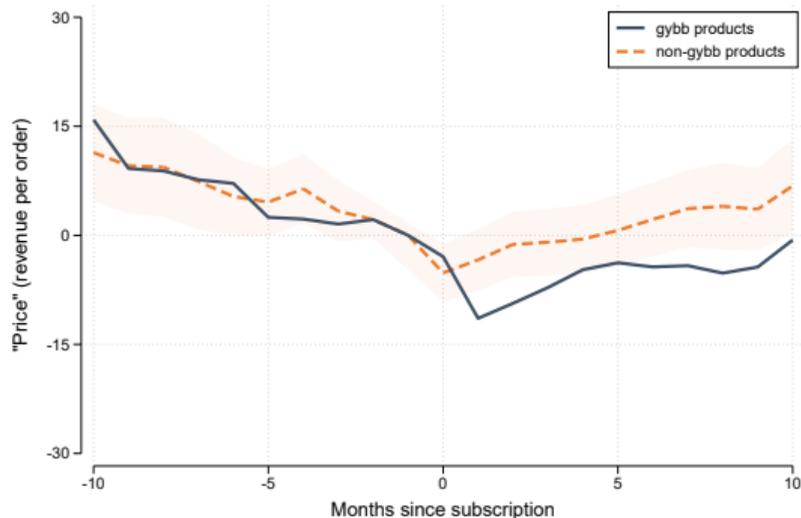


Notes: For both gybb and non-gybb groups, we restrict to active products that already had sales at or earlier than 10 months before event time 0. Outcome variables are normalized to zero for event month -1. Panel B includes product fixed effects and month-of-year fixed effects. Shaded areas show 95% CI constructed using standard errors clustered at the seller level.  $N \approx 16m$ .

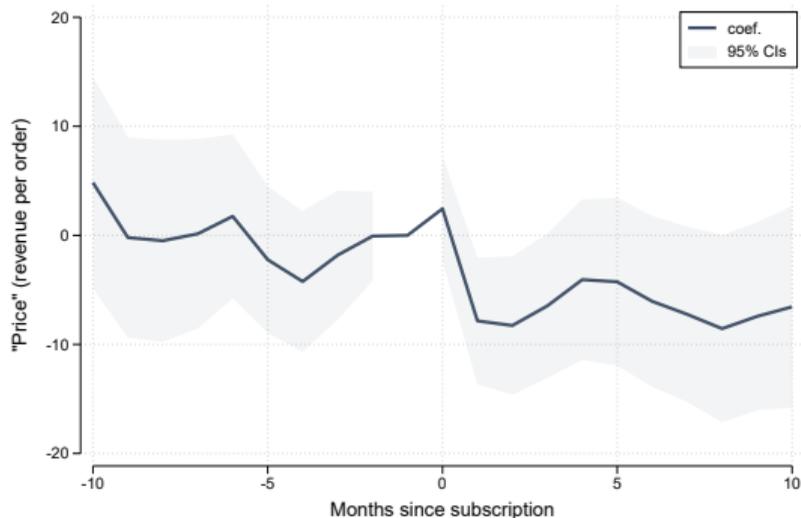
# Sellers' timing for charity subscription is strategic:

## Change in product's "price" before/after gybb subscription

### A. Raw trends



### B. DID

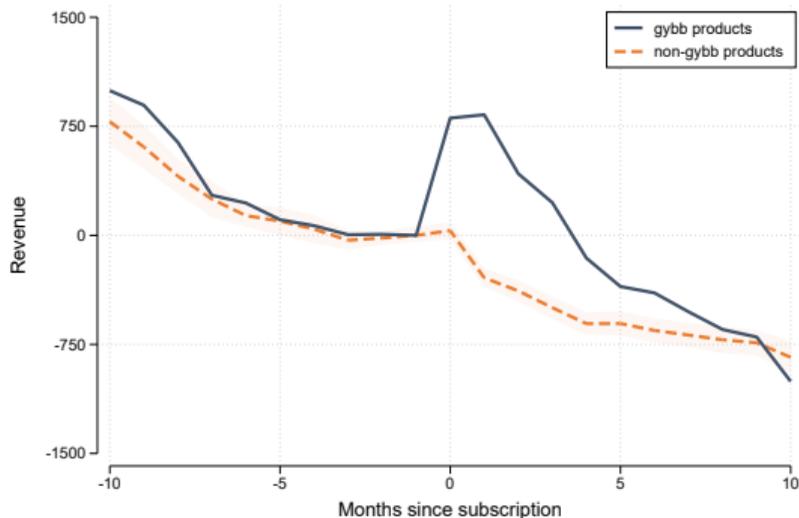


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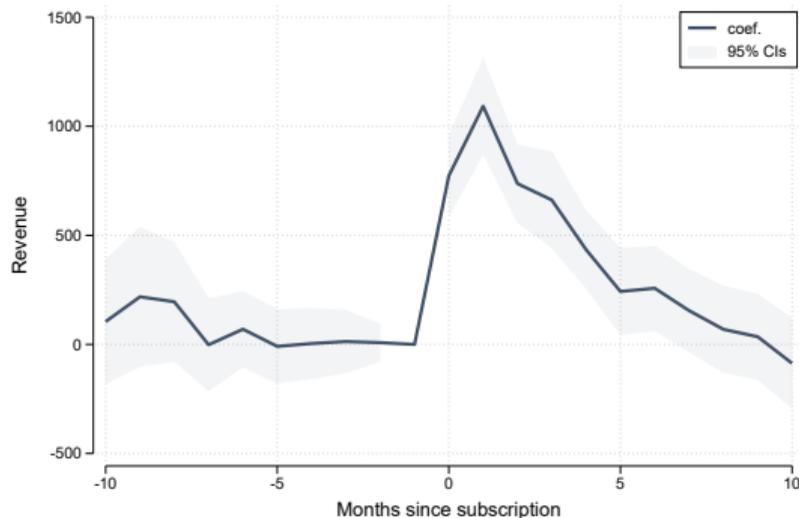
# Sellers' timing for charity subscription is strategic:

## Change in product's revenue before/after gybb subscription

### A. Raw trends



### B. DID



**Notes:** For both gybb and non-gybb groups, we restrict to active products that already had sales at or earlier than 10 months before event time 0. Outcome variables are normalized to zero for event month -1. Panel B includes product fixed effects and month-of-year fixed effects. Shaded areas show 95% CI constructed using standard errors clustered at the seller level.  $N \approx 16m$ .

# 1. Strategic motives of charity subscription

- We present four pieces of evidence suggesting seller's **decision to subscribe to gybb** is strategic
  1. Cross section-wise, sellers subscribe products that were already popular
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  3. More promotions are placed on more popular gybb subscriber products
  4. Surge in gybb subscription during online shopping holidays

## Strategic timing: Econometrics

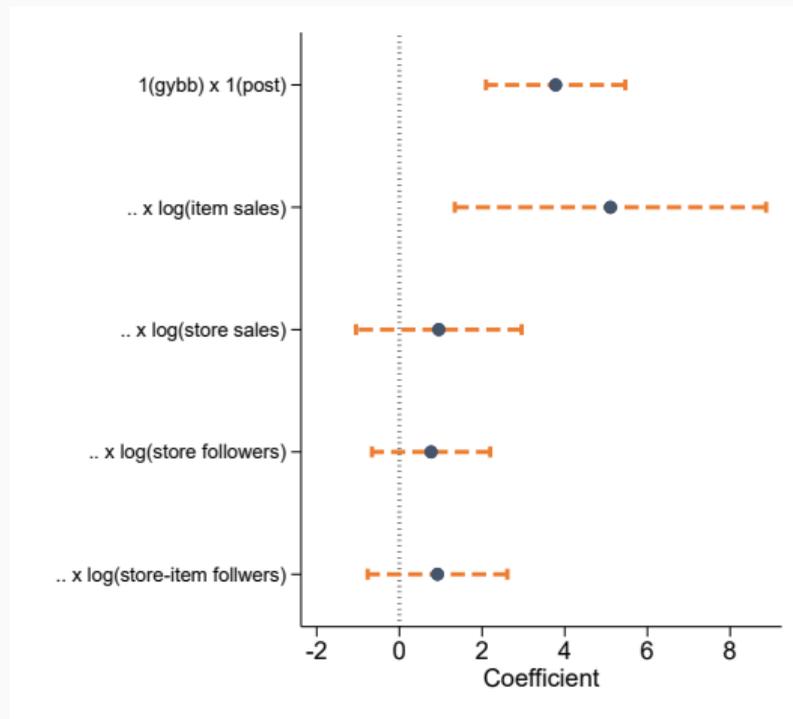
- DID heterogeneity by product or seller characteristics

$$Y_{it} = \alpha + \tilde{\beta} \cdot 1(\text{gybb})_i \#\#\# 1(\text{post})_t \#\#\# \log X_i + \text{ctrls}_{it} + \varepsilon_{it}$$

- $\#\#\#$  : full factorial operator
- $X_i$  = baseline (pre-gybb subscription) characteristics
  - product total sales
  - seller total sales
  - number of product followers
  - number of store followers

## What products do sellers promote following gybb participation:

Price promotions concentrate among products that sold very well

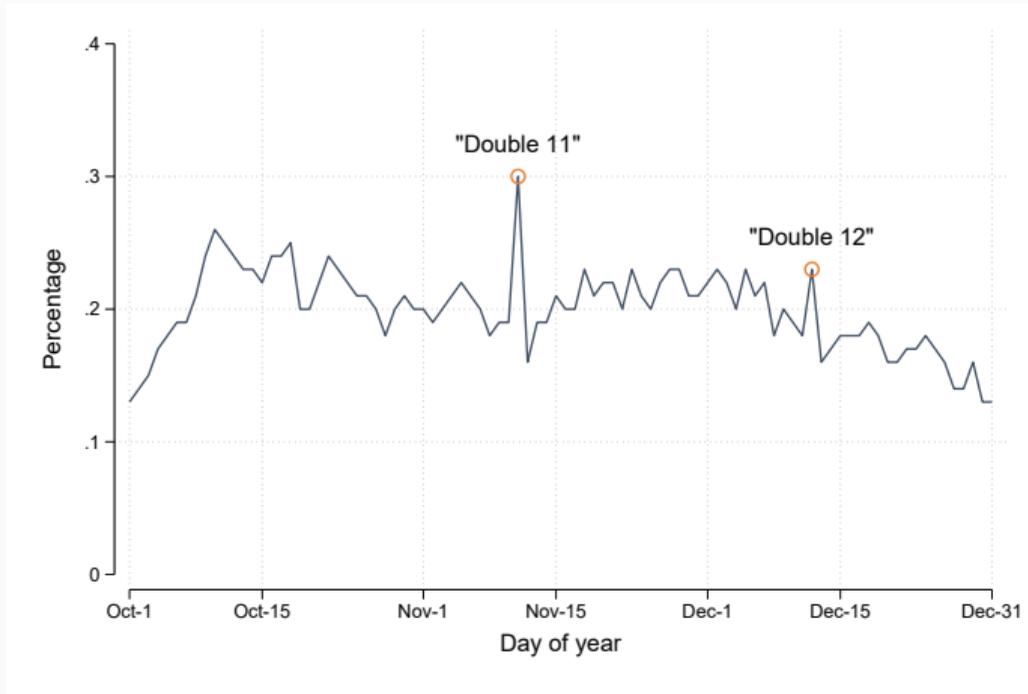


Source: : Each bar represents coefficient from a separate regression. The first row repeats the baseline DD estimate on changes in product promotion following gybb participation. The rest of the rows show three-way interaction coefficients. "log(item sales)" is log total number of transactions of the item. "log(store sales)" is log total number of transactions of all items of the seller. "log(store followers)" and "log(store-item followers)" are log total number of consumers who had followed the seller or the item. Range bars show 95% confidence intervals constructed using standard errors clustered at the seller level.

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## Seller gybb participation rates spike on consumption holidays



Source: This figure plots the distribution of seller's first gybb subscription date by day-of-year between October and November. Data are pooled for 2018-2020. The two highlighted spikes correspond to the November 11th Singles Day shopping festival and the December 12th spin-off.

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- Discussion

## 2. Does charity subscription improve revenue?

- We present two sets of evidence (that may seem contradictory at first glance)
  1. Charity subscription is remarkably stable
  2. Revenue effect of the charity lineage “per se” is ambiguous

# Charity subscription is remarkably stable

- Charity subscriptions are **rarely canceled**

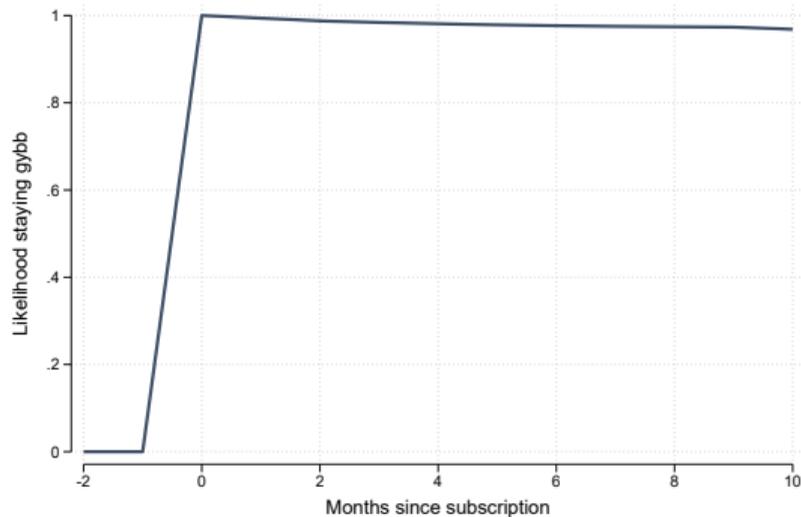
1. Less than 5% of subscriptions are canceled after one year
2. Subscriptions were robust against COVID-19 shutdowns ...
3. .. and business shocks in general

- **Stability** is a rare, useful feature for charitable fundraising

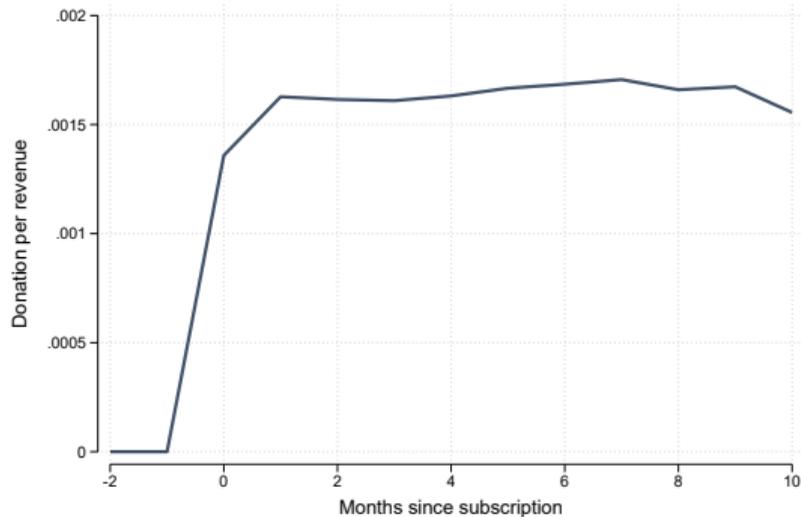
- Traditional charitable funds tend to be affected by economic conditions and idiosyncratic factors (e.g., disasters): List (2011); Meer, Miller, Wulfsberg (2017); Deryugina & Marx (2021)
- Cultivating recurring donation is hard: Ryzhov, Han, Bradic (2016); Blackbaud (2019)

## Sellers rarely cancel subscription or change how much to contribute

### A. Whether still on gybb



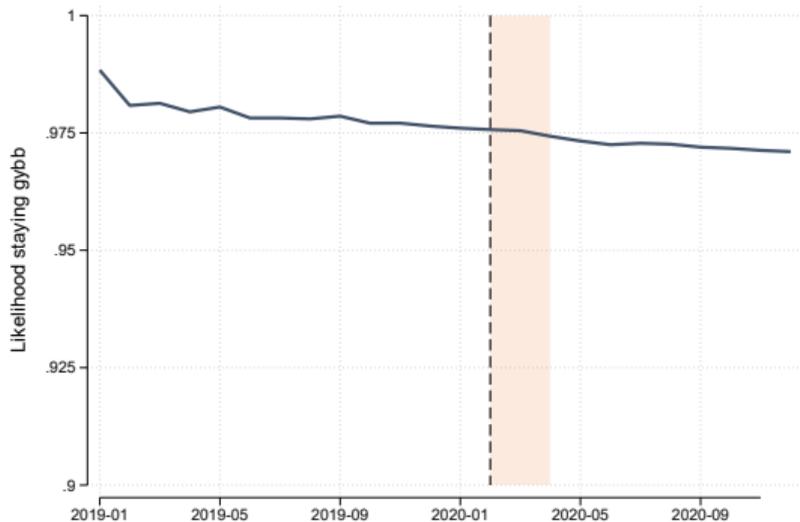
### B. Donation per unit of revenue



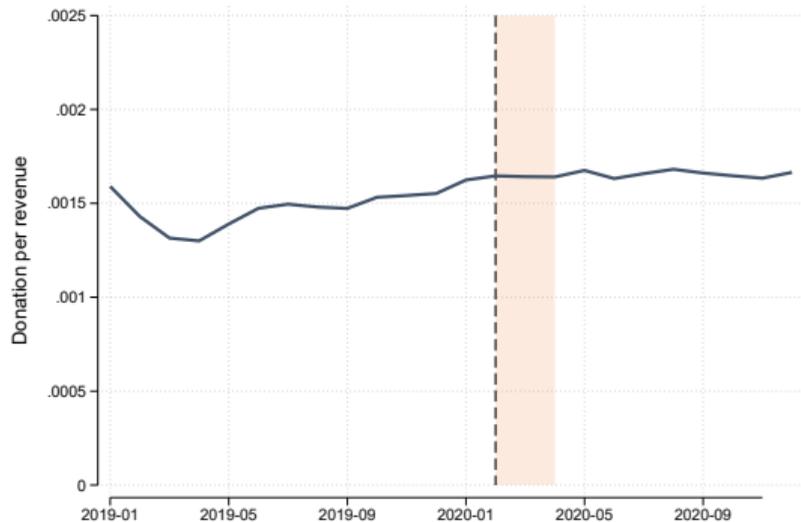
Notes: This figure plots gybb subscription status (A) and contribution-per-revenue metric (B) as a function of months relative to a product's gybb subscription. For both outcomes, coefficients prior to (and including) event month -1 are mechanically zero. Regressions include no control variables.

## Contribution is robust against business shocks: COVID-19 shutdowns

### A. Whether still on gybb



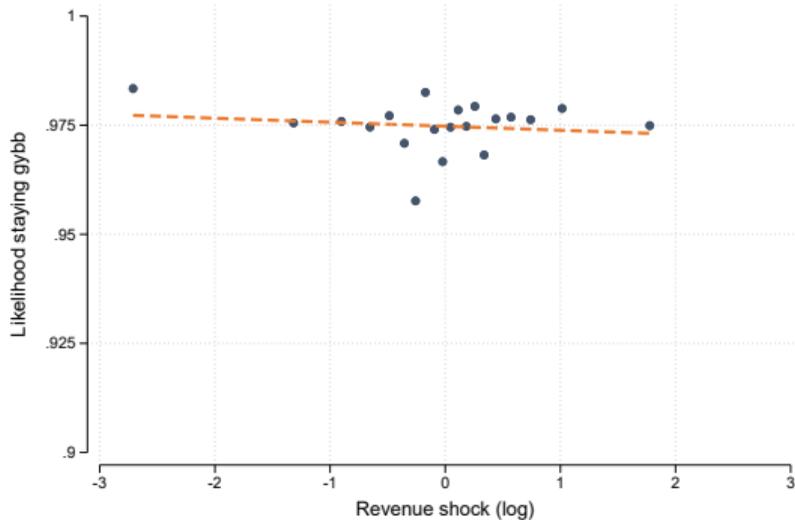
### B. Donation per unit of revenue



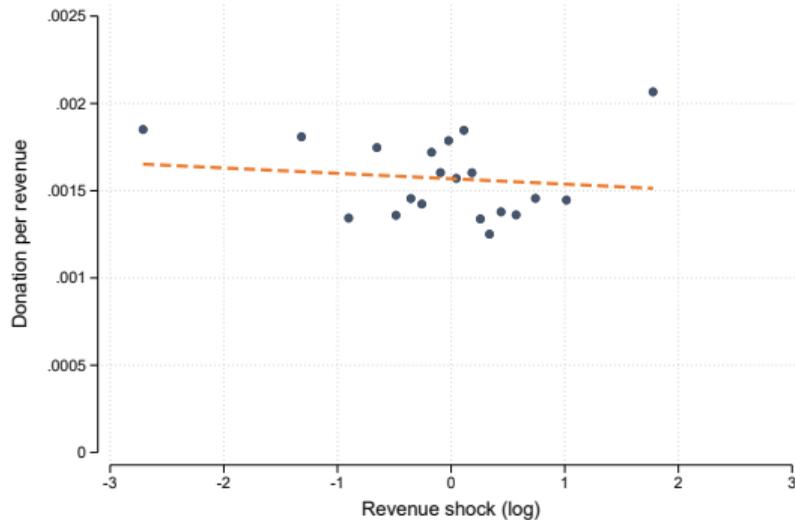
Notes: gybb subscription status (A) and contribution-per-revenue metric (B) as a function of time. The vertical dashed line marks the initial outbreak (January 23, 2020 Wuhan lockdown) followed by a shaded area that spans until April 8th, 2020 which covers the covid shutdowns for most Chinese cities.

## Contribution is robust against business shocks: Revenue shocks more generally

A. Whether still on gybb



B. Donation per unit of revenue



Notes: Ventile bin scatterplot of gybb subscription status (A) and contribution-per-revenue metric (B) as a function of within-seller log revenue shocks. Dashed lines are simple OLS regression lines.

## Charity subscription is remarkably stable

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2. Subscriptions were robust against COVID-19 shutdowns ...
3. .. and business shocks in general

- **Stability** is a rare, useful feature for charitable fundraising

- Traditional charitable funds tend to be affected by economic conditions and idiosyncratic factors (e.g., disasters): [List \(2011\)](#); [Meer, Miller, Wulfsberg \(2017\)](#); [Deryugina & Marx \(2021\)](#)
- Cultivating recurring donation is hard: [Ryzhov, Han, Bradic \(2016\)](#); [Blackbaud \(2019\)](#)

## 2. Does charity subscription improve revenue?

- We present two sets of evidence (that may seem contradictory at first glance)
  1. Charity subscription is remarkably stable
  2. Revenue effect of the charity lineage “per se” is ambiguous

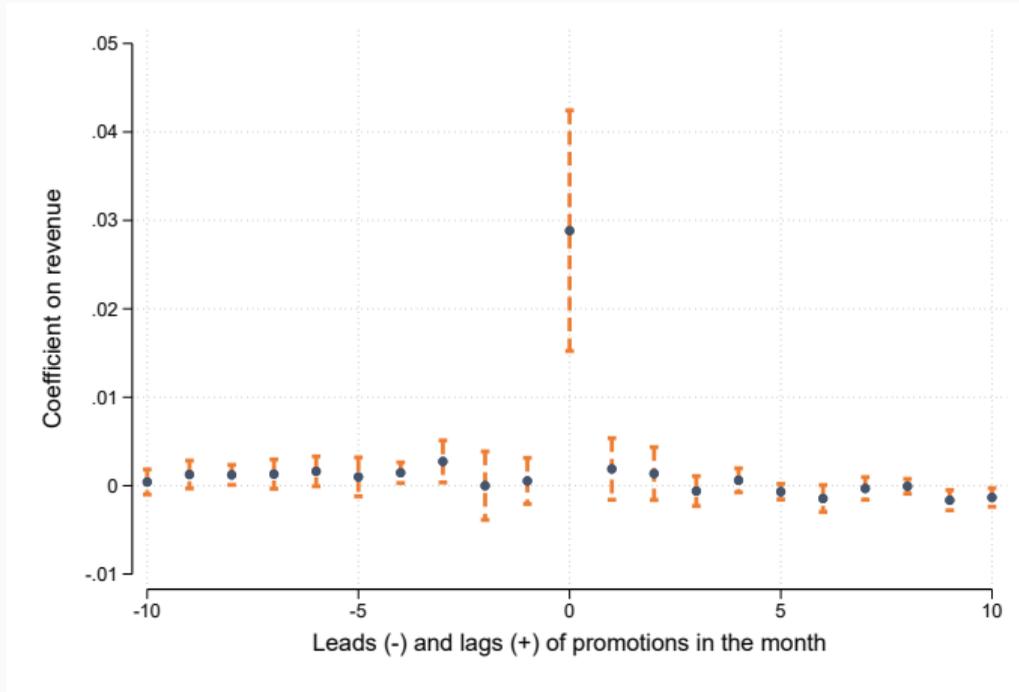
## Is there a charity premium?

- What we want to measure: **causal effect of gybb subscription**
  - Change in product sales due to a (quasi-)random gybb subscription
  - That is, the **pure effect** of gybb subscription without promotion
- We don't have that variation in the data
- Propose **two alternatives**
  1. Regression adjustments
  2. Look at breaks in consumer pool characteristics

## Approach 1. Residual revenue effects

- Recall event study results
  - Product promotion increases immediately after gybb participation
  - Product revenue spikes
- We ask: how much revenue effect remains after controlling for product promotion?
  - May seem a bit lame
  - But may bring insight: the first-order relationship between promotion and revenue is quite clear-cut

## Product promotion and revenue: Dynamic panel estimation



Source: Regression of monthly log product sales on 10 leads, 10 lags, and current month's number of promotion events. The regression includes product fixed effects and month fixed effects. Bars show 95% CI with standard errors clustered at the seller level.

## Approach 1. Residual revenue effects: Econometrics

- Revenue DID estimates, controlling for promotion

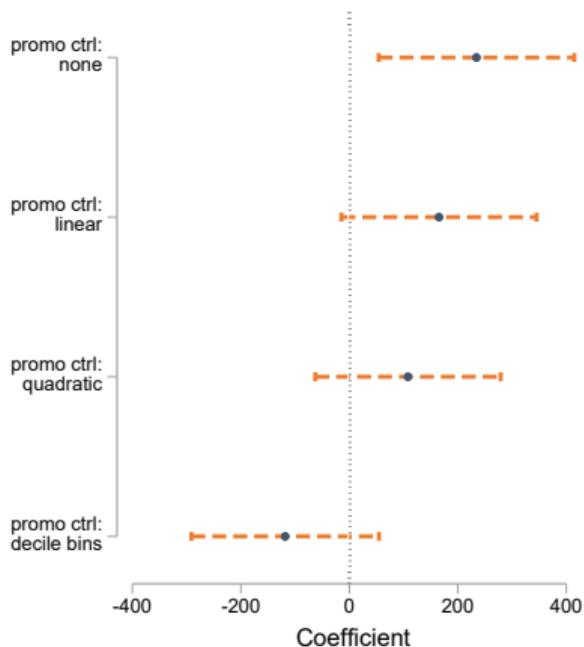
$$\text{Revenue}_{it} = \alpha + \tilde{\beta} \cdot 1(\text{gybb})_i \#\#\text{1}(\text{post})_t + f(\text{promotion}_{it}) + \text{ctrls}_{it} + \varepsilon_{it}$$

- $\#\#$  : full factorial operator
- $f(\text{promotion}_{it})$  = functions of product-month promotion (linear, quadratic, decile bins)

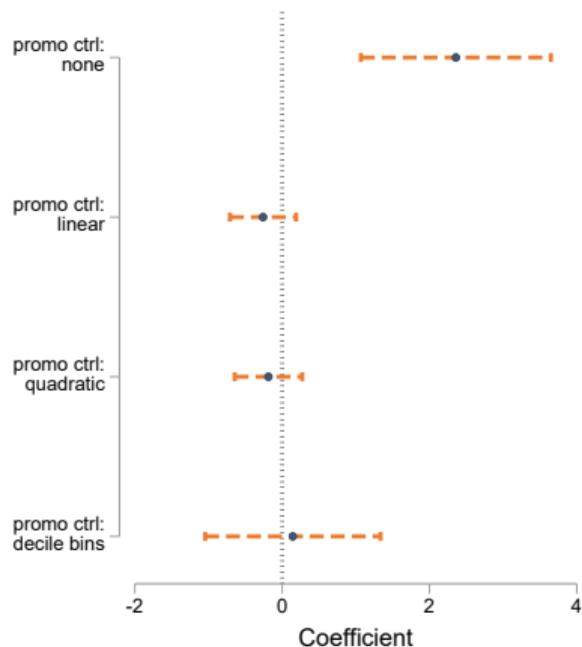
# Revenue effects, controlling for product promotions:

Revenue increases largely explained by changes in promotions

## A. Revenue



## B. Quantity



Notes: Each bar represents the difference-in-differences coefficient estimate from a separate regression. “promo ctrl: none” is the baseline estimate without controlling for promotions. The rest of the chart presents estimates after controlling for linear, quadratic, and decile bins of promotions. Bars show 95% CI constructed with SEs clustered at the seller level.

## Approach 1. Residual revenue effects

- These regressions are quite noisily estimated, but do suggest the independent impact of gybb on sales is unlikely to be enormous

## Approach 2. Changes in customer pool

- Next, examine changes in product's **customer pool characteristics**
  - If gybb subscription changes who are attracted to the product, should see a shift in consumer composition
  - For example, we expect an increase in consumers who generally like to shop gybb products
- Using product-buyer linked data, we construct the following consumer characteristics variables at the product-month level:
  - **3y average % of spending on gybb-linked products**
  - Average age
  - Proportion female
  - 3y total spending on Alibaba
- Use as dependent variable in the event study analysis

## Approach 2. Changes in customer pool

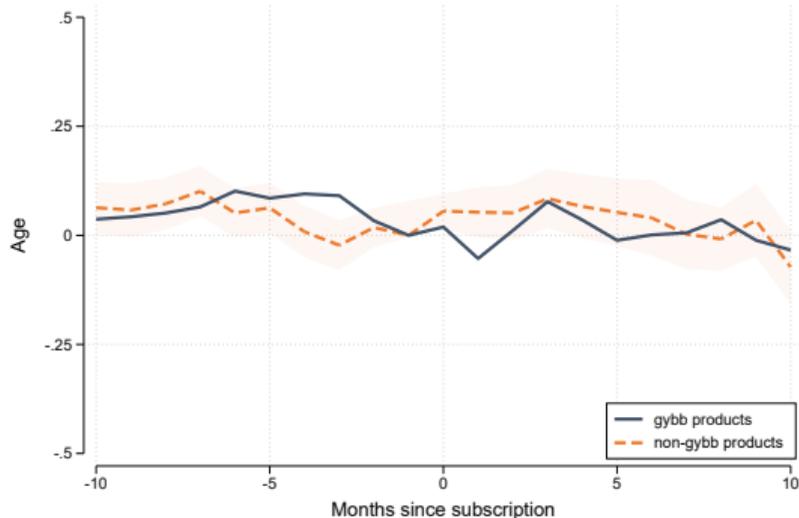
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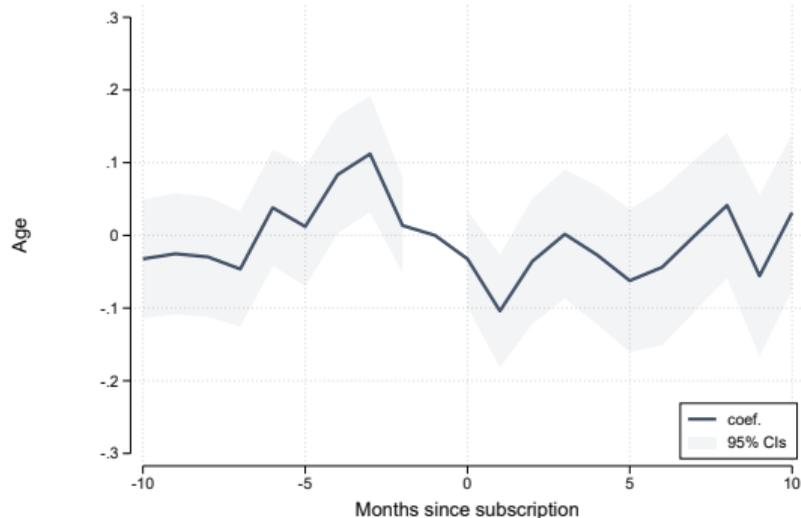
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- Use as dependent variable in the event study analysis

# Evidence on a consumer preference for charitable products: Change in buyers' age

## A. Raw trends



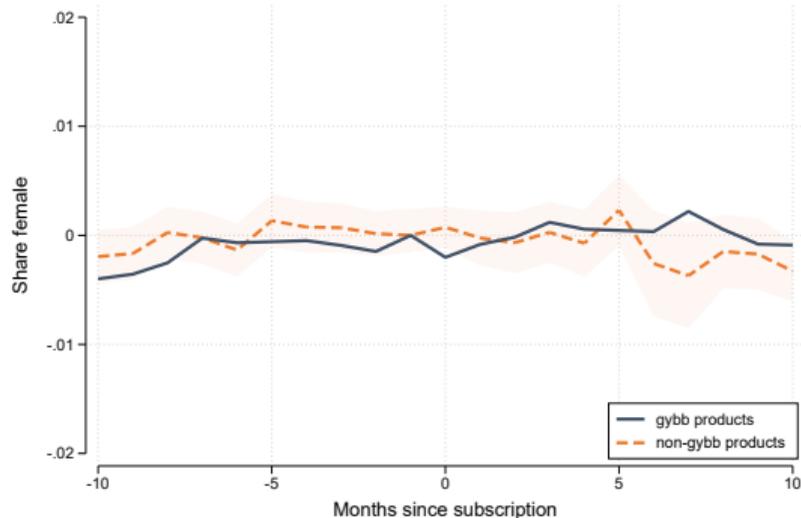
## B. DID



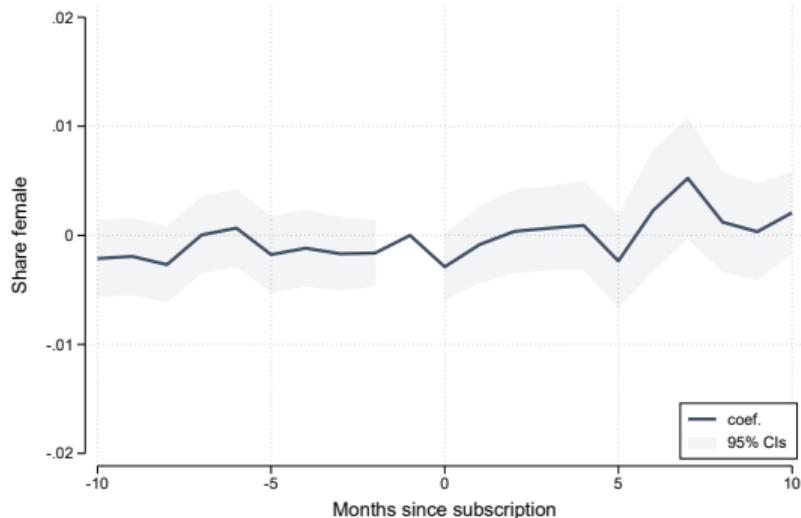
**Notes:** For both gybb and non-gybb groups, we restrict to active products that already had sales at or earlier than 10 months before event time 0. Outcome variables are normalized to zero for event month -1. Panel B includes product fixed effects and month-of-year fixed effects. Shaded areas show 95% CI constructed using standard errors clustered at the seller level.  $N \approx 16m$ .

# Evidence on a consumer preference for charitable products: Change in buyers' gender composition

## A. Raw trends



## B. DID

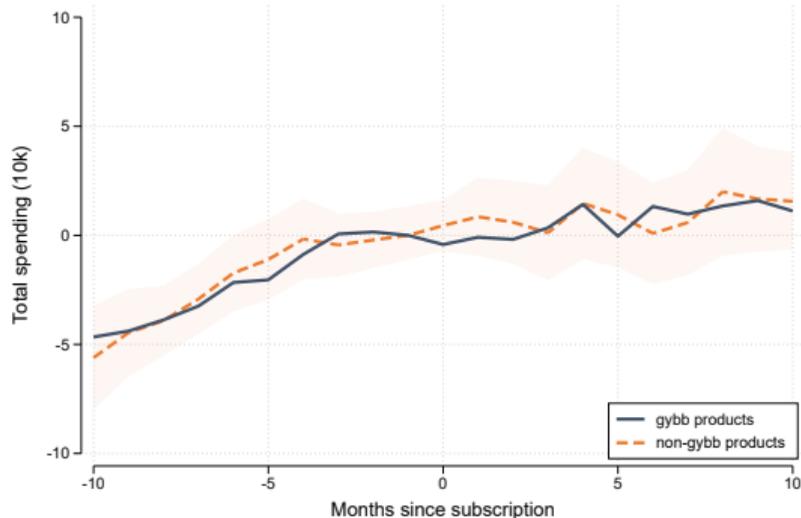


**Notes:** For both gybb and non-gybb groups, we restrict to active products that already had sales at or earlier than 10 months before event time 0. Outcome variables are normalized to zero for event month -1. Panel B includes product fixed effects and month-of-year fixed effects. Shaded areas show 95% CI constructed using standard errors clustered at the seller level.  $N \approx 16m$ .

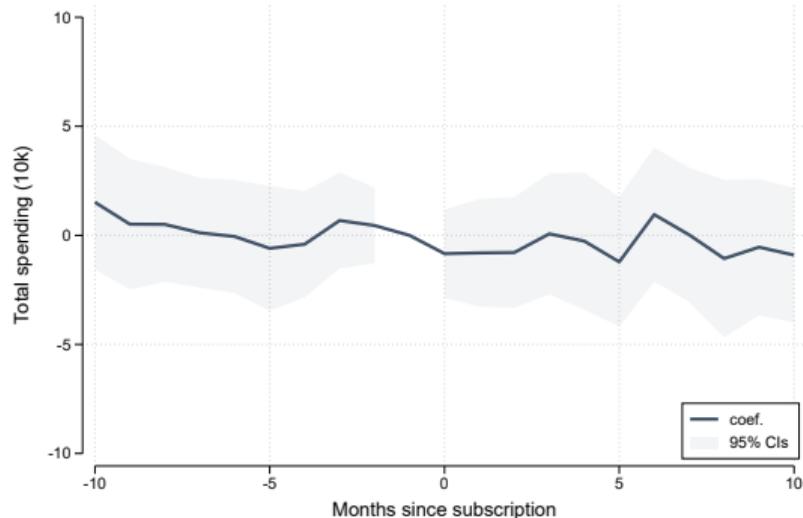
# Evidence on a consumer preference for charitable products:

## Change in buyers' 3-y overall spending

### A. Raw trends



### B. DID

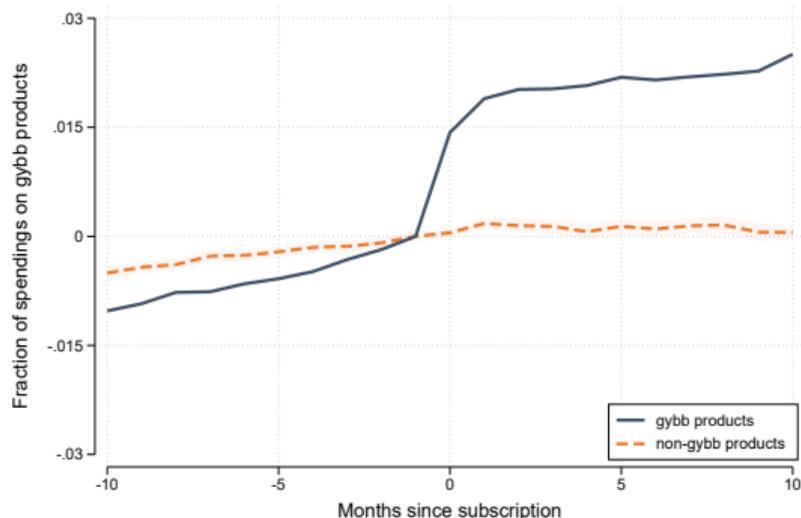


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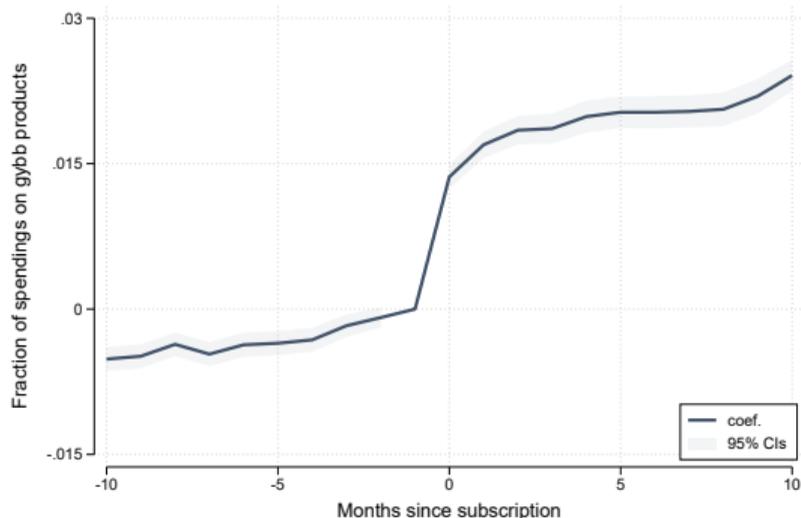
# Evidence on a consumer preference for charitable products:

Change in buyers' 3-y %spending on gybb products

A. Raw trends



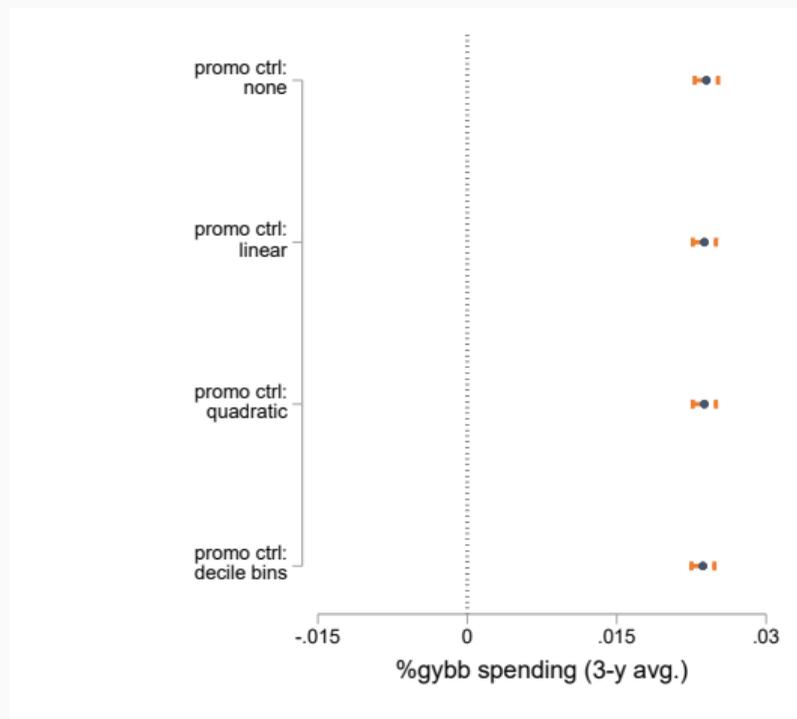
B. DID



Notes: For both gybb and non-gybb groups, we restrict to active products that already had sales at or earlier than 10 months before event time 0. Outcome variables are normalized to zero for event month -1. Panel B includes product fixed effects and month-of-year fixed effects. Shaded areas show 95% CI constructed using standard errors clustered at the seller level.  $N \approx 16m$ .

# Consumer composition changes, controlling for product promotions:

## Not explained by promotions



Source: Each bar represents the difference-in-differences coefficient estimate from a separate regression. "promo ctrl: none" is the baseline estimate without controlling for promotions. The rest of the chart presents estimates after controlling for linear, quadratic, and decile bins of promotions. Bars show 95% CI constructed with SEs clustered at the seller level.

## Approach 2. Changes in customer pool

- After gybb subscription, consumer pool's average gybb spending share rises by 2.4 ppts from a mean of 28.5 percent
  - Precise-zero effects on consumer age, gender composition, overall spending
- What it takes to generate this effect size
  - 1 more order per month from someone with 48% gybb spending share
  - 0.6 more order per month from someone with 60% gybb spending share
  - 0.3 more order per month from someone with 80% gybb spending share
- Unlikely this effect would be noticeable by individual sellers (as we find in interviews)

# Outline

- Introduction
- Background and data
- Program performance
- **Why do sellers give?**
  1. Seller's subscription decision is revenue-seeking
  2. **Does charity subscription really improve revenue?**
    - Few sellers chose to unsubscribe
    - Econometric evidence suggests no substantial revenue effect
  3. The “warm glow” of microgiving
- Discussion

## Qualitative evidence from interviews

- How to reconcile the findings that sellers reported the program **did not boost revenue**, yet **few chose to unsubscribe** from it?
- We **interview** a group of 9 gybb participants to solicit quantitative information on their motivation

## What do participants say: Interview excerpts



### **Seller A**

**Sector:** beauty products

**Monthly revenue:** between 300k – 700k yuan

**How did you learn about the program:** saw the option by chance when putting up products.

**Why donate:** like the look of the gybb product label; want to be involved in charitable causes; gybb donation costs little for the seller, but can mean a lot for those in need.

I mostly make donations through large platforms including Alipay, Tencent, and Taobao; have less trust for offline donation venues; donation is often intermittent, occurring when there were events (that caused emergent needs for charitable giving, such as natural disasters); people have little idea where to find trustworthy charities even if they wanted to donate money; the gybb program makes charitable giving a convenient and everyday practice.

**Would you unsubscribe if sales aren't great:** no, donation amount is small, and I do not make donations when no sales occur anyways.

**Did participation help improve sales:** unknown – didn't pay attention; consumers probably do not care.

## What do participants say: Interview excerpts



### **Seller B**

**Sector:** processed food

**Monthly revenue:** about 1 million yuan

**How did you learn about the program:** saw the gybb option by chance when putting up products.

**Why donate:** initially hoping to gain consumer traffic benefits and be able to contribute to charity at the same time; believed the gybb label may give consumers a good impression; trusts Alibaba's choice of charitable foundations.

**Would you unsubscribe if sales aren't great:** no, total contributions too small to matter.

**Did participation help improve sales:** little if any influence on sales; haven't paid attention for a while; consumers probably do not notice; but when I choose between similar products to buy, I tend to go with the one that makes gybb contributions.

Source: This graph shows selected response from three gybb participating sellers we interviewed. Full scripts in paper.

## What do participants say: Interview excerpts



**Seller C**

**Sector:** baby products

**Monthly revenue:** over 10 million yuan

**How did you learn about the program:** saw the option by chance when putting up products.

**Why donate:** social responsibility; being involved in charitable causes is important for brand image especially in my industry; highly agree with the gybb program's charitable approach (small amount per person, big effect in total); trust Alibaba's choice of charitable projects.

It would be a good idea for Alibaba to urge more large brands to participate in gybb, which can serve as role models and motivate many more firms to contribute as well.

**Would you unsubscribe if sales aren't great:** no, having been donating 0.02 yuan per transaction for >80% of my listed products and did so for many years; would probably consider donating more to help the society in bad economic times.

**Did participation help improve sales:** probably but not sure; consumers may prefer products with a charity linkage.

# Outline

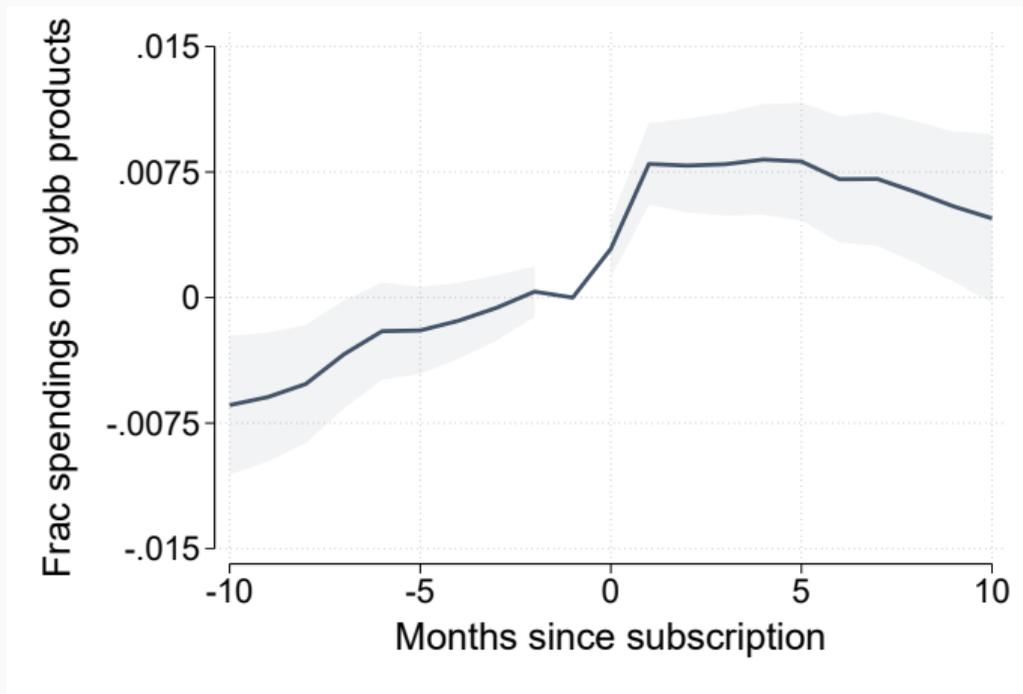
- Introduction
- Background and data
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- **Why do sellers give?**
  1. Seller's subscription decision is revenue-seeking
  2. Does charity subscription really improve revenue?
  3. **The “warm glow” of microgiving**
- Discussion

# The “warm glow” of microgiving

- Sellers cited the emotional fulfillment derived from being able to act in a charitable manner at minimal cost, i.e., the **warm glow** effect (e.g., [Andreoni, 1989](#); [Andreoni, 1990](#))
- In fact, sellers often mentioned both **revenue-seeking** and **warm glow** motives: the former drives sellers’ initial decision to participate in the program, and the latter explains why they keep donating even after they saw little evidence of revenue improvement
- We present evidence that the **decision to not unsubscribe** can be explained by warm glow
  1. Sellers’ own purchasing habit to infer their attitudes towards gybb
  2. Sellers’ active donation via the OCS program after participating in the gybb program

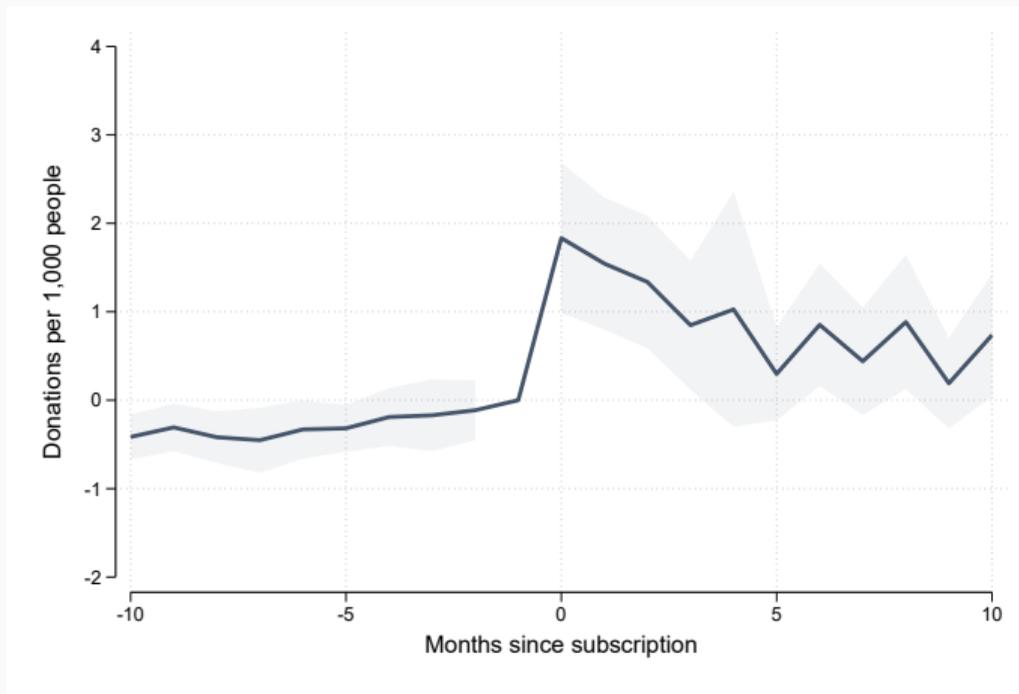
## Evidence on a preference for charitable actions:

Sellers themselves buy gybb products more



Source: This figure shows sellers' own Alibaba spending share towards gybb-listed products as a function of time relative to the first month any of their products contributed to gybb. Event month -1 is normalized to zero. Shaded areas show 95% CI constructed using standard errors clustered at the seller level.  $N \approx 3.4m$ .

## Evidence on a preference for charitable actions: Sellers' active donations to OSC program increases



Source: This figure shows sellers' donation to the OSC program as a function of time relative to the first month any of their products contributed to gybb. Event month -1 is normalized to zero. Shaded areas show 95% CI constructed using standard errors clustered at the seller level.  $N \approx 3.4m$ .

# Outline

- Introduction
- Background and data
- Program performance
- Why do sellers give?
- **Discussion**
  - Charity's experience
  - External validity

# 1. Charity's experience with the program

- We interviewed two large charities about their experience with the gybb program
  - One Foundation (<https://onefoundation.cn/>)
  - Society of Entrepreneurs and Ecology (<http://www.see.org.cn/index.html>)

# 1. Charity's experience with the program

- Speed & stability

“ [The gybb program] is very stable and very fast in fund raising. We raised 5 million yuan for our projects in two to three months, which would have been really difficult to achieve through alternative venues. ”

“ We don't have to do much, and we just 'automatically' get donations from the sellers once we are listed on the gybb program?it would be a lot more costly to find donors ourselves in the real world. ”

## 1. Charity's experience with the program

- Stringent vetting & consumer trust

“ The cost of fundraising is really low because sellers trust the platform ... [the gybb program] has the most strict requirements among all similar programs. It established a joint evaluation system and required charities to provide reports every month. ”

“ I would say it is not easy to meet the high standards of [the gybb program]. We put all of our projects on Alibaba Charity Store and only some of our best projects get to be listed on gybb. ”

# 1. Charity's experience with the program

- Donation motivation

“ Sellers expected that gybb may help increase sales. But I think that along the way [the gybb program] brought them closer to philanthropy and cultivated trust on charitable causes overall. We have received messages from sellers like ‘I grew up in countryside myself, and I want to give back to those kids.’ They also expressed a lot of expectations for our projects. ”

## Conclusions

- This research casts light on several ingredients of **microgiving** as a new form of online charitable fundraising
  - Extremely low expected donation (pennies)
  - High rates of recurring donation via retention technology (subscription)
  - Low search costs for donors and charities (platform takes care of it)
  - Donor recognition system (charity label)
- We speculate this model can be used on other platforms that feature frequent transactions and product competition