

# The Indian Household Savings Landscape

## ONLINE APPENDIX\*

Cristian Badarinza, Vimal Balasubramaniam and Tarun Ramadorai<sup>†</sup>

June 2016

---

\*We are grateful to Yunqi Zhang for research assistance.

<sup>†</sup>Badarinza: Institute of Real Estate Studies, National University of Singapore, 4 Architecture Drive, Singapore. E-mail: cristian.badarinza@nus.edu.sg. Balasubramaniam: Saïd Business School and Oxford-Man Institute of Quantitative Finance, University of Oxford, Park End Street, Oxford OX1 1HP, UK. Email: vimal.balasubramaniam@sbs.ox.ac.uk. Ramadorai (corresponding author): Saïd Business School, Oxford-Man Institute of Quantitative Finance, University of Oxford, Park End Street, Oxford OX1 1HP, UK, and CEPR. Tel.: +44 (0)1865 278816. Email: tarun.ramadorai@sbs.ox.ac.uk.

Figure A.1  
Survey Sample

This figure presents the survey sample across the States of India in the All India Investment and Debt Survey, 2012.

### State-wise Survey Sample

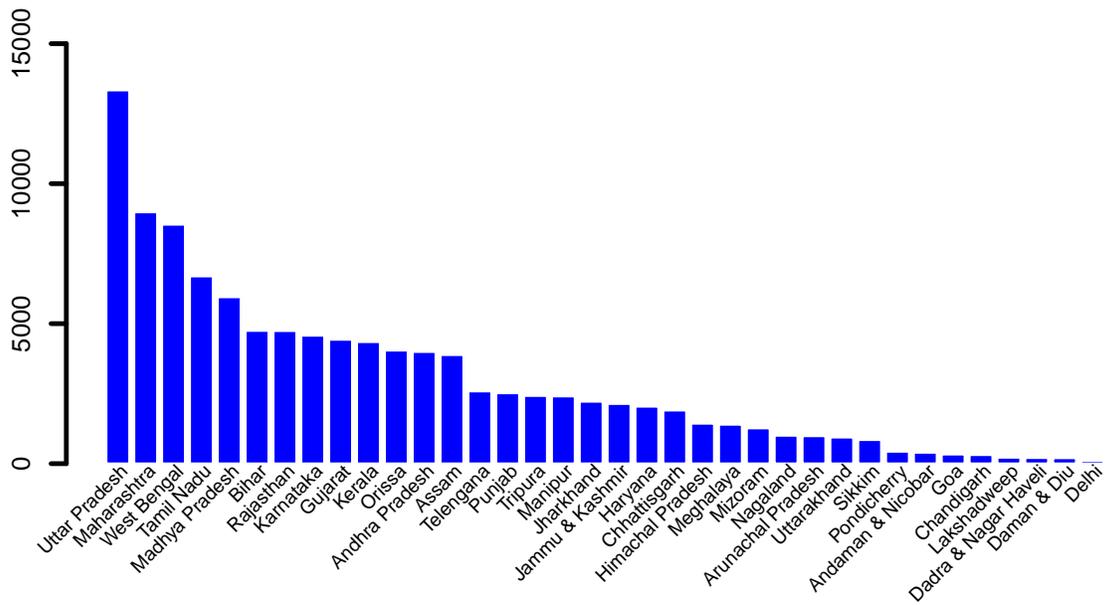


Figure A.2  
Inflation Developments across Indian States

This figure reports the evolution of consumer price inflation for the following set of states: Andhra Pradesh, Assam, Bihar, Gujarat, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal. The data source is the Labour Statistics Bureau and uses the CPI (Agricultural Workers) inflation as representative for all sampled households.

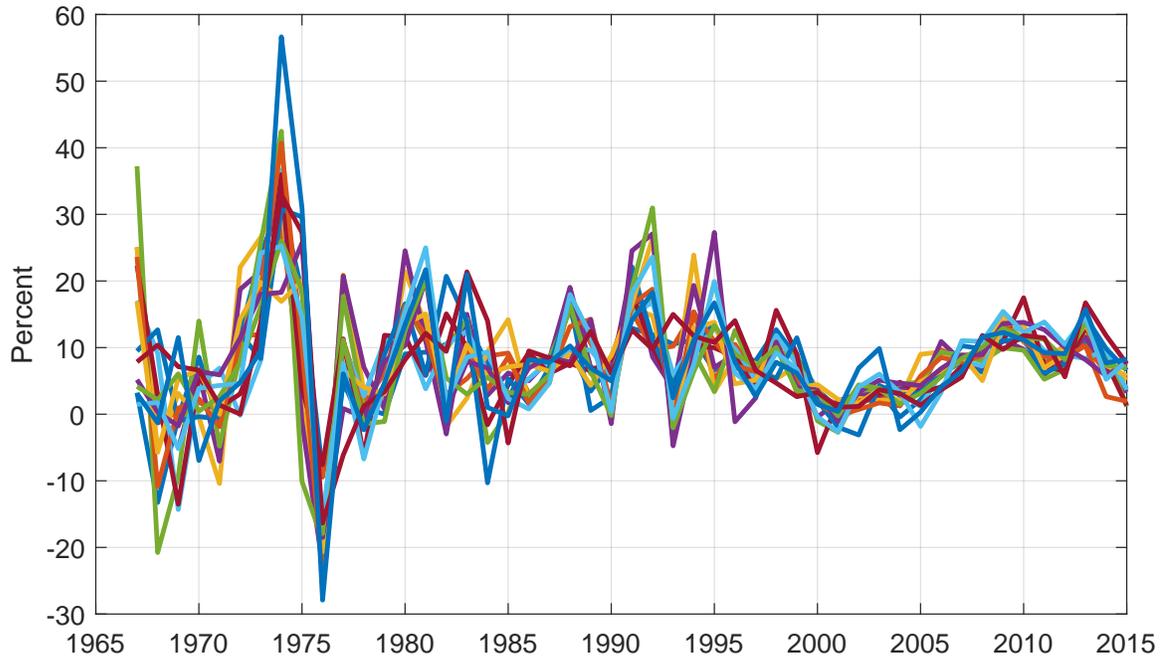
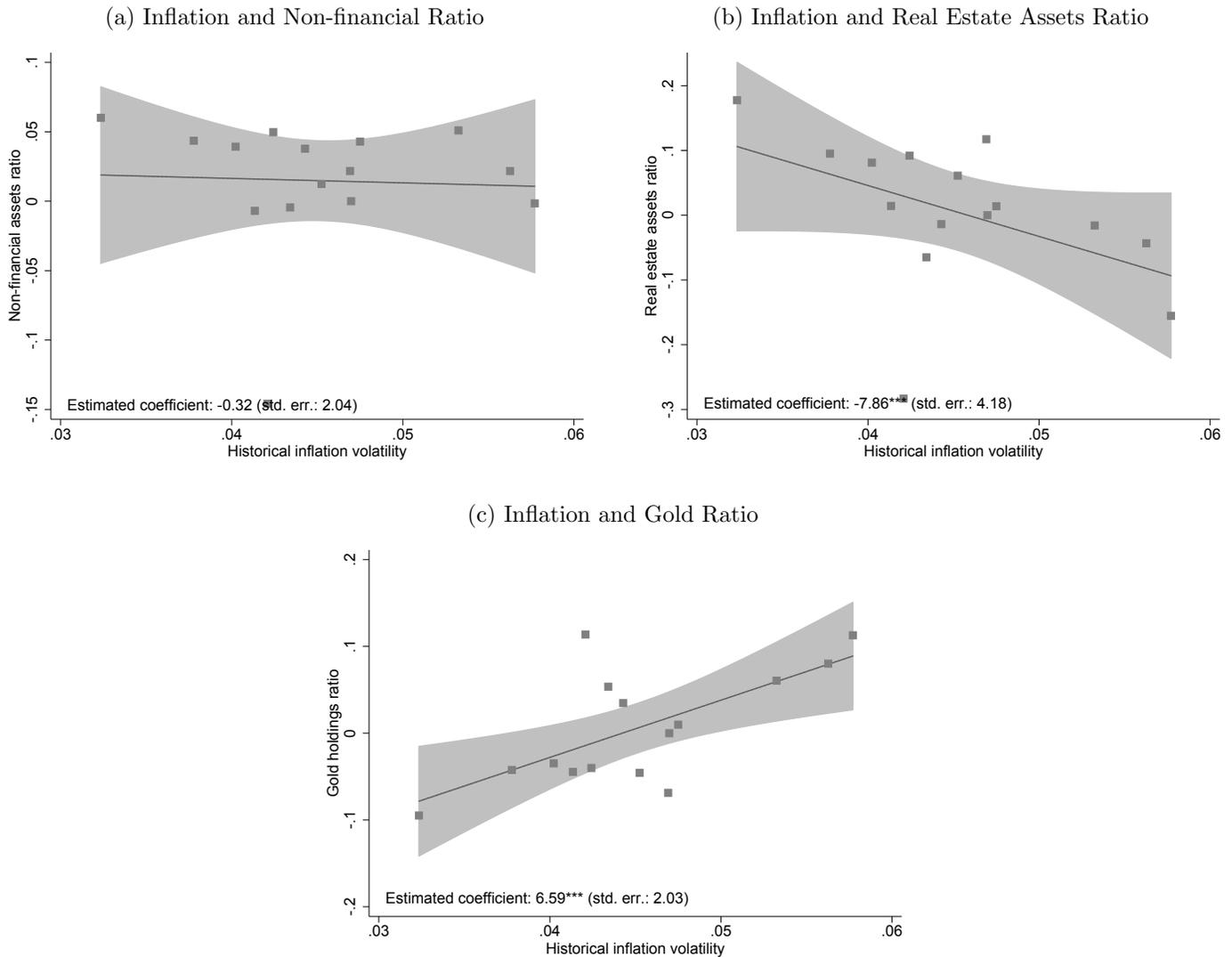


Figure A.3  
Relationship between Inflation Uncertainty and Wealth Allocation in India

This figure reports the correlation between household wealth shares and inflation developments across Indian states, *controlling for the State Gross Domestic Product*. We obtain state-specific wealth shares as fixed effects  $\mu_k$  from the following estimated specification:

$$f_{i,k} = \mu_k + \beta X_{i,k} + \varepsilon_{i,k},$$

where  $f_{i,k}$  are wealth shares of household  $i$  in state  $k$ , and  $X_{i,k}$  are dummy variables capturing wealth and age quintiles, education groups, rural vs. urban residence, number of children and number of daughters. The sample contains 15 states for which we are able to match household-level information from the NSS survey and historical regional consumer price indexes: Maharashtra, Andhra Pradesh, Karnataka, Rajasthan, Gujarat, Uttar Pradesh, West Bengal, Bihar, Madhya Pradesh, Orissa, Tamil Nadu, Assam, Kerala, Punjab, and Jammu & Kashmir. We use household-level data from the 2012 wave of the Indian AIDIS survey. Inflation volatility is calculated as the in-sample standard deviation of the consumer price index between 2003 and 2012. Inflation data is sourced from the Labour Statistics Bureau, Government of India.



# I. Calculation of asset categories

*European Household Finance and Consumption Survey (Germany)*

## Deposits and transaction accounts

- Sight accounts: All deposits usually at a bank, savings bank, credit institution, mutual bank, insurance company, against which the account holder is permitted to make daily withdrawals (from the bank counter or ATM machines) and make transfers for the purpose of making payments to third persons or others, or transfers to other accounts.
- Savings accounts: All money deposits against which the account holder is not permitted to make transfers for the purpose of making payments to third persons or others.
- Time deposits: Money deposits usually at a bank, savings bank, credit institution, mutual bank, that cannot be withdrawn for a certain "term" or period of time. When the term is over it can be withdrawn or it can be held for another term.

## Mutual funds

- Investments in mutual funds, money market mutual funds or hedge funds.
- Types of mutual funds: Predominantly investing in equity, bonds, money market instruments, or real estate.

## Bonds

- Corporate or government bonds, bills or notes.
- All financial assets which are bearer instruments, are usually negotiable and traded on secondary markets and do not grant the holder any ownership rights to the institutional unit issuing them.
- Types of issuer: State or other general government, banks or other financial intermediaries, non-financial corporations.

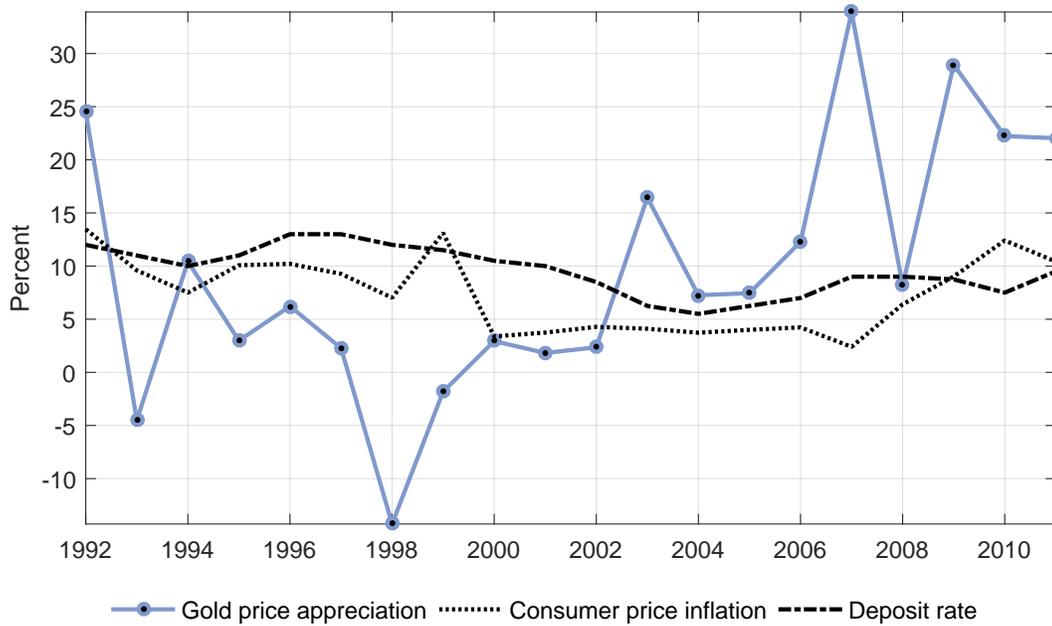
## Directly held stocks

- Publicly traded shares that are listed on a stock exchange or other form of secondary market.
- Excluding mutual fund shares and excluding other equity in private businesses.

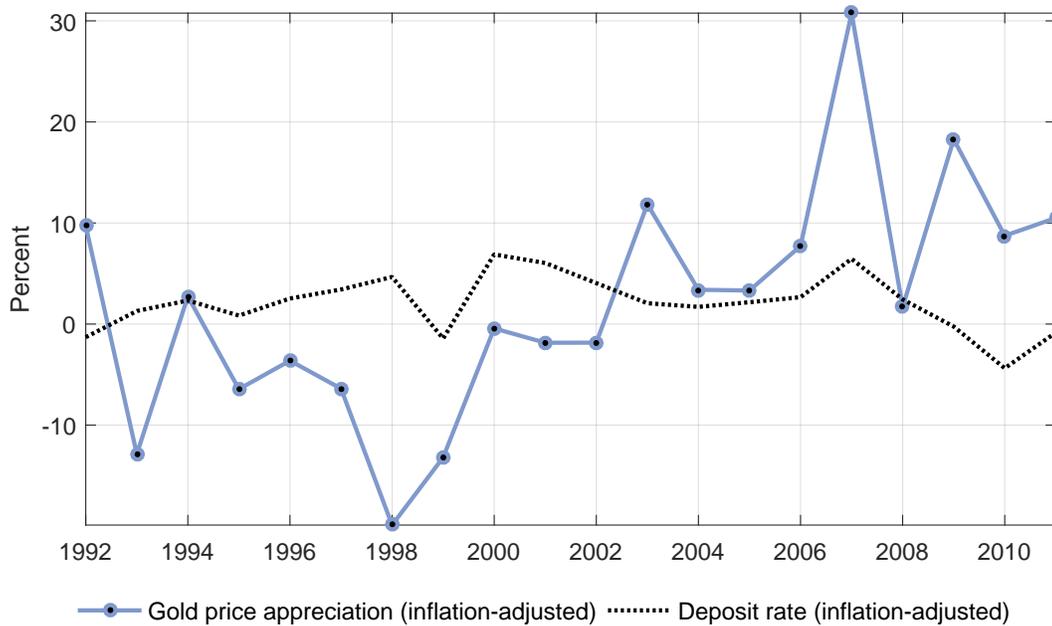
Figure A.4  
Gold Prices, Deposit Rates and Inflation

This figure reports the evolution of gold prices, term deposits rate, and the consumer price inflation. Gold prices and term deposit rates are both obtained from the Reserve Bank of India. Inflation data is from the Labour Statistics Bureau and uses the CPI (Agricultural Workers) inflation as representative for all sampled households.

(a) Nominal



(b) Real



### Retirement assets and life insurance

- Voluntary pension plans (defined-contribution accounts).
- Access to these plans is not necessarily linked to an employment relationship.
- Whole life insurance policies, which accumulate a cash value that the policyholder can redeem or borrow against.

### Other financial assets

- Managed accounts with a bank or investment company, which makes most of the day-to-day decisions or consult more closely with the account owner. Including trust accounts. Excluding pension and insurance accounts.
- Money owed to the household.
- Options, futures, index certificates, precious metals, oil and gas leases, future proceeds from a lawsuit or estate that is being settled, royalties.

### Main residence

- Current estimated price of household's main residence (for owner-occupied residential real estate).

### Other real estate

- Other properties, including farm land and buildings, industrial real estate, garages, shops, offices, hotels.

### Vehicles, valuables and other assets

- Cars, other vehicles, motorbikes, trucks, vans, planes, boats, and works of art, antiques, jewellery.

### Private businesses

- Investment in business equity that is not publicly traded.
- Self-employment and non self-employment private businesses.

## *Survey of Consumer Finances (US)*

### Deposits and transaction accounts

- Transaction accounts: checking, savings, money market or call accounts.
- Certificates of deposit.

### Mutual funds

- Directly held pooled investment funds held by household, including stock mutual funds, tax free bond mutual funds, government bond mutual funds, and combination and other mutual funds, such as hedge funds.

### Bonds

- Savings bonds.
- Nontaxable bonds, mortgage bonds, government bonds, and 'other' bonds, such as corporate or foreign bonds.

### Directly held stocks

- Publicly traded stock, directly held by household.

### Retirement assets and life insurance

- Quasi-liquid retirement assets, including IRAs, Keoghs, thrift-type accounts, and future and current account-type pensions.
- Cash value of whole life insurance.

### Other financial assets

- Managed accounts, including trusts, annuities and managed investment accounts in which the household has equity interest.
- Money owed to the household.
- Future proceed from lawsuits, royalties, futures, non-public stock, deferred compensation, oil, gas, mineral investments.

### Main residence

- Primary residence of household, excluding the part of a farm or ranch used in a farming or ranching business.

#### Other real estate

- Land contracts/notes owed to the household and properties other than the principal residence, including 1-4 family residences, time shares, and vacations homes.

#### Vehicles, valuables and other assets

- All types of vehicles, cars, trucks, SUVs, motorcycles, boats, airplanes.
- Non-residential investment in time shares and vacation homes net of mortgages and other loans.
- Precious metals, antiques, furniture, art objects, paintings, equipment, musical instruments and other miscellaneous non-financial items owned by household.

#### Private businesses

- Market value of active businesses calculated as net equity if businesses were sold immediately, including loans from the household to the businesses and the value of personal assets used as collateral for business loans.

### *Survey of Financial Security (Canada)*

#### Deposits and transaction accounts

- Chequing and savings accounts with a nonzero balance and other deposits such as term deposits and Guaranteed Investment Certificates, excluding amounts held in registered pension plans.
- Tax-free savings accounts.

#### Mutual funds

- Mutual funds and other investment funds, excluding amounts held in registered pension plans.

#### Bonds

- Federal and provincial savings bonds and other bonds issued by governments and corporations, including investment in foreign bonds and excluding amounts held in registered pension plans.

#### Directly held stocks

- Publicly traded common and preferred shares, including foreign stock and excluding amounts held in registered pension plans.

#### Retirement assets and life insurance

- Registered Retirement Savings Plans (RRSPs).
- Registered Retirement Income Funds (RIFs).
- Locked-in Retirement Accounts (LIRAs)
- Employer pension plans registered with Canada Customs and Revenue Agency.
- Other retirement funds.

#### Other financial assets

- Other non-pension financial assets.

#### Main residence

- Primary residence, including farm houses and excluding farm land.

#### Other real estate

- Real estate other than the principal residence, including second homes, vacation homes, timeshares, rental property or vacant lots, located in Canada or outside.

#### Vehicles, valuables and other assets

- Cars, trucks, vans, sport utility vehicles as well as motorcycles, mobile homes, boats and snowmobiles, excluding vehicles owned by the respondent's business and vehicles that are leased.

#### Private businesses

- Total amounts the respondent would receive if the private business were sold, after deducting any outstanding debts to be paid.

## *Wealth and Assets Survey (UK)*

### Deposits and transaction accounts

- Current accounts.
- Savings accounts.
- Individual Savings Accounts (ISAs).

### Mutual funds

- Unit investment trusts.

### Bonds

- Fixed term investment bonds.
- UK and foreign bonds and gilts.

### Directly held stocks

- Shares by publicly traded UK companies.
- Overseas shares.
- Employee shares and options.

### Retirement assets and life insurance

- Occupational defined contribution pensions.
- Additional Voluntary Contributions (AVCs).
- Personal pensions.
- Pensions from former spouse or partner.

### Other financial assets

- Other investments, informal financial assets, children trust funds, children savings accounts, National Savings Products.

### Main residence

- Property value of main household residence.

Other real estate

- Other houses, buy-to-let houses, buildings, UK and overseas land and other property.

Vehicles, valuables and other assets

- Household goods and collectables, household contents in main property, second homes, buy-to-let property and overseas property.
- Cars, vans, motorbikes, personalized number plates.

*All India Debt and Investment Survey*

1. **Financial Assets:** There are three categories of assets that are classified as financial from the AIDIS data:
  - a. **Shares and Debentures** These include direct holding of shares and bonds in unlisted firms, listed firms, direct and indirect holdings (through Mutual Funds), and equity holdings in cooperative societies.
  - b. **Account Receivables** Amounts receivable from governments, employer/trader, other households and a residual category called “any other”. This also includes any unsecured loans provided to others, “in kind loans” such as payment receivable by doctors for services rendered from their clients will be recorded here. Other receivables, the residual category, includes bonus, profits, lottery prizes, etc. that have not yet been received by the individual.
  - c. **Other Financial Assets** Deposits, insurance premium paid (cumulative) till date, provident fund (GPF, PPF, CPF, NPS), ULIPs, government deposits and small savings schemes, bank deposits, non-banking companies deposits, micro-finance institutions, self-help groups, and annuity schemes.
2. **Real Estate Assets** Value of land and property owned by the household. These include both residential properties and also land used for self-employment purposes (shops, agricultural land etc.).
3. **Durables and Equipment** These include transport equipment, agricultural machinery and implements owned by the household, and non-farm business equipment such as handloom, semi-automatic and power looms, ginning, pressing and baling equipment, mills, casting, melting and welding equipment, photocopying machine, printing press, computer, medical equipment and so on. These **only** serve as a aiding tool, and is not exhaustive as a list.

4. **Livestock** Total value of livestock (chicken, ducks etc.) owned by the household (cattle, buffalo, breeding cows) and other animals such as elephants, and horses.
5. **Bullion and Gold** Although this is recorded at the very end of “financial assets” of the household, we treat it as a separate category of “non-financial” assets of the household.