

The Great Indian Demonetization

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Introduction

- ▶ On November 6 India demonetized 86% of its currency
- ▶ Stated objectives
 - ▶ Seize undeclared income
 - ▶ Destroy counterfeit currency
 - ▶ Speed up formalization of the economy
 - ▶ Increase the tax base and tax compliance
- ▶ Last two goals added to narrative later

This paper

- ▶ What was the background for the decision?
- ▶ How successful was demonetization in achieving stated goals?
- ▶ What were the effects?

The Background

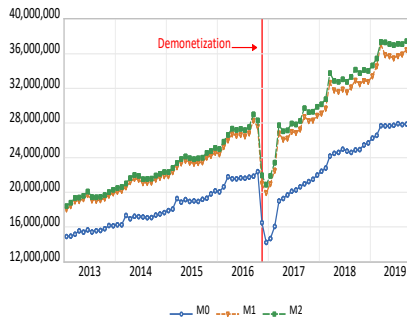
- ▶ RBI Board met on Nov 8 to consider letter from MOF
- ▶ Letter recommended demonetization
- ▶ Reasons cited in the government letter
 - ▶ Supply of 500 and 1000 rupee bills had grown by 76 and 108 percent between 2011 and 2016
 - ▶ Economy had only grown by 30 percent during this period
 - ▶ Cash typically facilitated “black money”

RBI Board Response

- ▶ Board approved the recommendation
- ▶ Board made some comments however
 - ▶ **Government facts wrong**
 - ▶ **cited currency growth nominal but cited GDP growth real**
 - ▶ Nominal GDP and currency growth had kept pace
 - ▶ Most people do not hold undeclared wealth in cash
 - ▶ Likely to be negative effects on growth in the short run

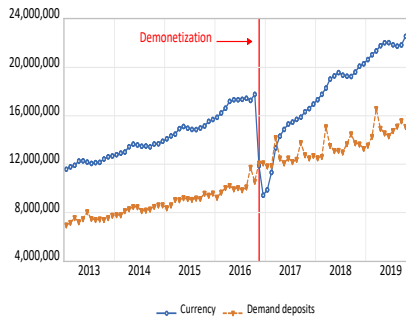
The Shock

(a) Money stocks



Monetary aggregates are in millions of rupees

(b) Cash and deposits



Currency and deposits are in millions of rupees

Seizing undeclared income

- ▶ Key: amount of returned currency less than demonetized currency
- ▶ 99% of old cash was returned
- ▶ Direct method of seizing undeclared income failed

How much could have been seized?

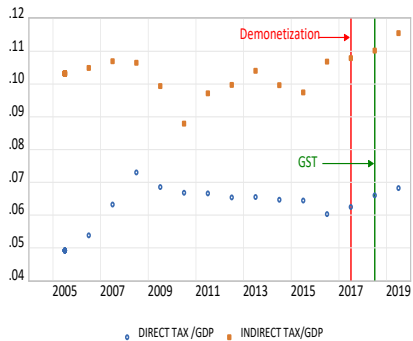
- ▶ Available estimates for India
 - ▶ underground economy: 25% of GDP
 - ▶ black wealth: 50% of GDP
 - ▶ demonetized currency: 10% of GDP
- ▶ Possible seizure: 3% of undeclared wealth even if only 85% cash returned
- ▶ Goal itself was not well thought out

Indirect Method for Seizing Undeclared Income

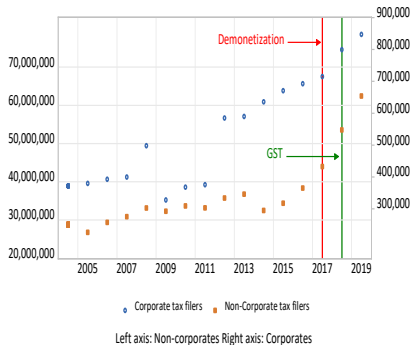
- ▶ Increase tax base by forcing exchange through deposits
- ▶ Depositors are traceable
- ▶ Did this work?

The Tax Effect

(a) Tax-GDP ratio



(b) Tax filers



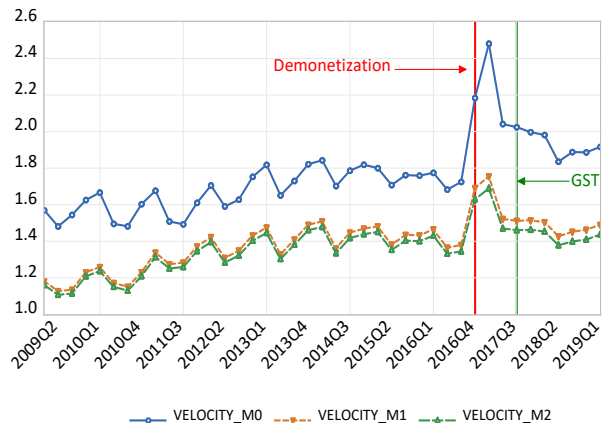
Implications of Tax Figures

- ▶ Direct and indirect tax ratios in 2018 similar to past trends
 - ▶ Direct tax ratio has been stable between 6 and 7 percent since 2010
 - ▶ Indirect tax ratio on rising path except for declines in 2014 and 2015
 - ▶ Indirect tax ratio hasn't deviated from its recent trend
- ▶ No sharp increase in tax filers in 2017
- ▶ Sharper increase in 2018, after GST was introduced

Digitizing India

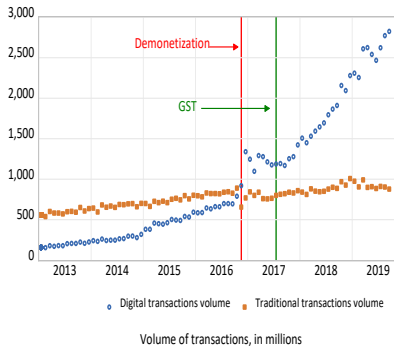
- ▶ 80 percent of workers and majority of firms in India are informal
- ▶ 45 percent of economy unregulated and untaxed
- ▶ Small base for direct taxes creates over-dependence on indirect taxation
- ▶ Impedes the penetration of banks and formal finance
- ▶ Digitization of the economy could reduce these constraints

Use of Cash for Transaction

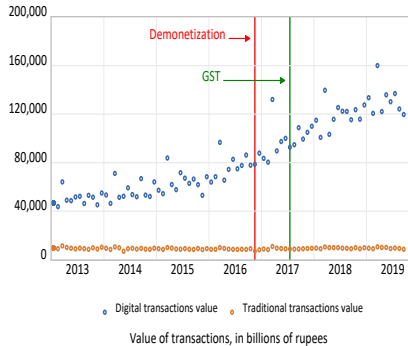


The Digitization Effect on Transactions

(a) Transaction volumes



(b) Transaction values



Who Adopted Digitized Payment Methods?

- ▶ Research by Aggarwal et al (2019) and Crouzet et al (2019)
- ▶ Common finding on adoption of digitized payments
- ▶ Areas not integrated with formal financial network unlikely to adopt digitization

Costs of Demonetization

- ▶ Research by Chodorow-Reich et al (2019) and Karmakar-Narayanan (2019)
- ▶ 2% of GDP lost in months of demonetization (Chodorow-Reich et al)
- ▶ Households without bank accounts experienced 2 to 7 percent lower consumption in December 2016 relative to those with bank accounts (Karmakar-Narayanan)

Unemployment

- ▶ Unemployment effects of demonetization (Vyas 2019)
- ▶ Employed individuals fell by 3.5 million during November 2016 – February 2017
- ▶ Labor force fell by 15 million during November 2016 – February 2017 period
- ▶ Sharp increase in the number of discouraged workers who left the labor force

Conclusions

- ▶ Poor move
- ▶ Political economy factors may have been important
 - ▶ February 2017 elections in Uttar Pradesh
 - ▶ main opponents of BJP were regional parties
 - ▶ elections are cash-intensive in India
 - ▶ fund-raising nationally difficult for regional parties