A New, Exciting Bird's-Eye View of the Indian Economy Through the GST

02

CHAPTER

And then felt I like some watcher of the skies, When a new planet swims into his ken

John Keats, "On First Reading Chapman's Homer"

As an information repository, the Goods and Services Tax (GST) embodies and heralds a radical alteration and enlargement in the understanding of the Indian economy. Preliminary analysis of this information yields the following feast of findings. There has been a fifty percent increase in the number of indirect taxpayers; and a large increase in voluntary registrations, especially by small enterprises that buy from large enterprises and want to avail themselves of input tax credits. The distribution of the GST base among the states is closely linked to the size of their economies, allaying fears of major producing states that the shift to the new system would undermine their tax collections. Data on the international exports of states (the first in India's history) suggests a strong correlation between export performance and states' standard of living. India's exports are unusual in that the largest firms account for a much smaller share of exports than in other comparable countries. India's internal trade is about 60 percent of GDP, even greater than estimated in last year's Survey and comparing very favorably with other large countries. India's formal sector, especially formal non-farm payroll, is substantially greater than currently believed. Formality defined in terms of social security provision yields an estimate of formal sector payroll of about 31 percent of the non-agricultural work force; formality defined in terms of being part of the GST net suggests a formal sector payroll share of 53 percent.

INTRODUCTION

2.1 Just for one reason, policymakers and researchers could soon share the sense of wonder that the poet expressed on first encountering the Greek epic, when he felt that a whole new world had suddenly opened up to him: the Goods and Services Tax (GST). The GST has been widely heralded for many things, especially its potential to create one Indian market, expand the tax base, and foster cooperative federalism. Yet almost unnoticed is its one enormous benefit: it will create a vast repository of information, which will enlarge and surely alter our understanding of India's economy.

2.2 Data from the GST can help unveil some long-elusive and basic facts about the Indian economy. Some exciting new findings include:

- There has been a large increase in the number of indirect taxpayers; many have voluntarily chosen to be part of the GST, especially small enterprises that buy from large enterprises and want to avail themselves of input tax credits;
- The distribution of the GST base among the states is closely linked to their Gross State Domestic Product (GSDP), allaying fears of major producing that the shift to the new system would undermine their tax collections;

- New data on the international exports of states suggests a strong correlation between export performance and states' standard of living;
- India's exports are unusual in that the largest firms account for a much smaller share than in other comparable countries;
- Internal trade is about 60 percent of GDP, even greater than estimated in last year's *Survey* and comparing very favorably with other large countries;
- India's formal sector non-farm payroll is substantially greater than currently believed. Formality defined in terms of social security provision yields an estimate of formal sector payroll of about 31 percent of the non-agricultural work force; formality defined in terms of being part of the GST net suggests a formal sector payroll of 53 percent.
- Similarly, the size of the formal sector (defined here as being either in the social security or GST net) is 13 percent of total firms in the private non-agriculture sector but 93 percent of their total turnover.

2.3 These findings are explored below.

TAXPAYERS

2.4 Table 1 shows that as of December 2017, there were 9.8 million unique GST registrants,[1] slightly more than the total indirect tax registrants under the old system.[2] But the two numbers are not comparable: registrants in the old system were not unique, since many taxpayers were registered under several taxes. Adjusting the base for double and triple counting, the GST has increased the number of unique indirect taxpayers by more than 50 percent–a substantial 3.4 million.

2.5 The profile of new filers is interesting. Of their total turnover, business-to-consumer (B2C) transactions account for only 17 percent of the total. The bulk of transactions are business-to-business (B2B) and exports, which account for 30-34 percent apiece (Table 2).

2.6 One of the many benefits of the GST was the voluntary compliance it would elicit. A few numbers highlight this phenomenon. There are about 1.7 million registrants who were below the threshold limit (and hence not obliged to register) who nevertheless chose to do so. Indeed, out of the total estimated 71 million non-agriculture enterprises, it is estimated that around 13 percent

Table 1. Number of Indirect Tax Registrants, Pre- and Post-GST (in millions)

	GST Registrants			Where GST Registrants' Came From				Type of GST Registration	
	Total	New	Old	Excise	Services	VAT	New	Composition	Regular
All India	9.8	3.4	6.4	.01	.60	5.8	3.4	1.6	8.2

Note: A company can have multiple registrations if the company operates across the states.
Source : Survey calculations based on GST data.

Table 2. Estimated Turnover and its Type of the New Filers Under GST

	B2B	B2C	Exports	Nil	Total
Share of turnover under different categories	34.0%	16.8%	29.8%	19.4%	100.0%

Note: NIL category includes supplies that are outside the scope of the GST such as petroleum, health, education, and electricity.
Source : Survey calculations based on GST data.

1. This translates roughly into 9.2 million unique corporate/enterprise entities because the same entity may have obtained multiple registrations across states.
2. About 2.6 million under the service tax and 0.4 million under the excise taxes (both levied by the Center) and 6.4 million under the Value-Added Tax (VAT, levied by the states).

are registered in the GST.[3]

2.7 Further, about 1.6 million taxpayers (17 percent of the total) are registered under the composition scheme, the current threshold for which is fixed at Rs. 1.5 crore. They pay a small tax (1 percent, 2 percent or 5 percent) on their turnover and are not eligible for input tax credits. This set up minimizes their administrative burden, but also makes it difficult for them to sell to larger firms, which would not be able to secure input tax credits on such purchases. For this reason, about 1.9 million (24 percent of total regular filers) of the registrants sized between the GST threshold of Rs 20 lakhs and the composition limit[4] who could have opted for the composition scheme chose not to do so and instead decided to file under the regular GST. Put differently, more than 54.3 per cent (1.9/(1.9+1.6)) of those eligible to register under the composition scheme, chose instead to be regular filers. Why this is the case is discussed in Section 4 and Annex I.

2.8 Maharashtra, UP, Tamil Nadu and Gujarat are the states with the greatest number of GST registrants. UP and West Bengal have seen large increases in the number of tax registrants compared to the old tax regime.

TAX BASE AND ITS SPATIAL DISTRIBUTION

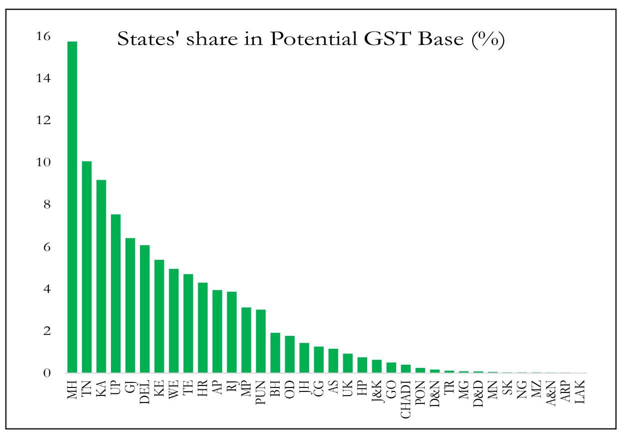
2.9 Much of the discussions in the run-up to the GST centered on the size of the tax base, and its implications for the Revenue Neutral Rate (RNR).[5] The RNR Committee had estimated a base of Rs. 68.8 lakh crore and the GST Council had estimated a base of Rs. 65.8 lakh crore.[6]

2.10 Current data suggest that the GST tax base (excluding exports) is Rs. 65-70 lakh crore, broadly similar to these two previous estimates. Based on the average collections in the first few months, the implied weighted average collection rate (incidence) is about 15.6 percent. So, as estimated by the RNR committee, the single tax rate that would preserve revenue neutrality is between 15 to 16 percent.

2.11 In the run-up to the GST, there was anxiety amongst the manufacturing states that the switch to a destination and consumption-based tax would transfer the tax base toward consuming states. Has this happened?

2.12 Figure 1 provides data on the state-wise share of the total GST base. The top states are Maharashtra (16 percent), Tamil Nadu (10 percent), Karnataka (9 percent), Uttar Pradesh (7 percent), and Gujarat (6 percent). Figure 2 shows that each state's share in the GST base is almost perfectly correlated (coefficient of 0.95) with its share in overall GSDP. So the biggest tax bases still seem to be in the biggest producing states.

Figure 1. State-Wise Distribution of the Tax Base



Source : Survey calculations based on GST data.

2.13 One interesting question is whether the GST tax base is more closely correlated with

3. This estimate is discussed later in Section 7 on Informality in India and Annex II.

4. The turnover limit for the composition scheme was changed from Rs. 1 crore to Rs. 1.2 crore (in the October 2017. GST Council meeting) to Rs. 1.5 crore (in the November 2017 GST Council meeting). In order to maintain consistency across months, filers with annual turnover up to Rs. 1 crore are classified under the composition scheme.

5. Report on the Revenue Neutral Rate and Structure of Rates for the Goods and Services Tax (GST), submitted to the Government of India on December 4, 2015 and available at http://www.gstcouncil.gov.in/sites/default/files/CEA-rpt-rnr.pdf.

6. Both the RNR committee and the GST Council had estimated the GST base for the year 2013-14. The number for 2017-18 is updated in line with nominal GDP growth since 2013-14.

manufacturing or overall GDP, including services.[7] Figures 2 and 3 plot (for the largest states), each state's share of the GST base against its share in GSDP, and aggregate manufacturing GVA.

2.14 It is true that the share of Maharashtra's and Gujarat's tax base under the GST is lower than their share of manufacturing (in Figure 3, they are to the right of the 45 degree line). But because these two states also have a significant presence in services, their tax base share remains in line with their share of GSDP. Overall, the data seem to suggest fairness and balance in the GST outcomes.

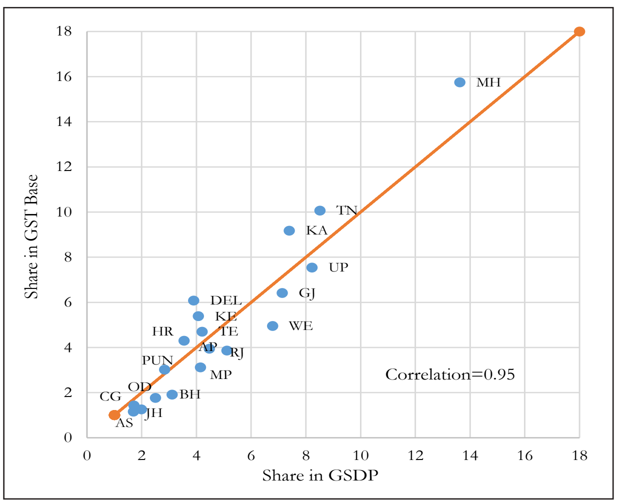
SIZE DISTRIBUTION OF INTER-FIRM TRANSACTIONS

2.15 Knowing the nature of transactions between firms is critical to formulating policy, especially designing compliance procedures. Tables 3 and 4 offer insights.

2.16 Table 3 shows the transaction type by the size of the firm. All firms are placed in five categories based on their annual turnover:

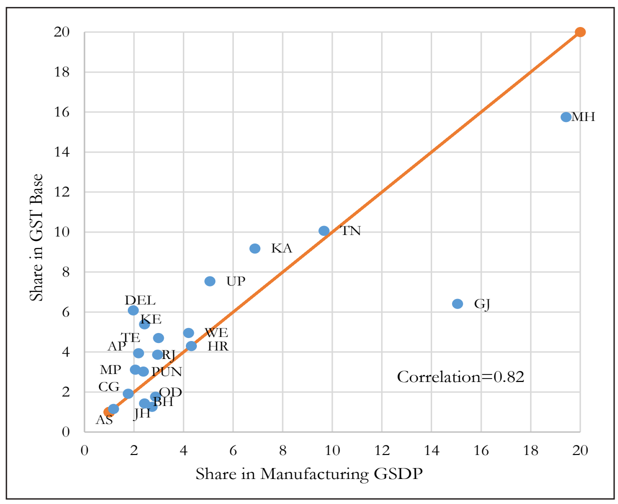
- below-threshold, less than Rs. 20 lakhs;

Figure 2. Share in GST Base and GSDP



Source : Survey calculations based on GST data and CSO.

Figure 3. Share in GST Base and Manufacturing GSDP



Source : Survey calculations based on GST data and CSO.

Table 3. Monthly Turnover Distribution by Transaction Type and Turnover Group

	Transaction Type					Share of Filed Returns	Share in Tax Liability
	B2B	B2C	Exports	Nil[8]	Total		
Below-Threshold	0.2%	0.2%	0.0%	0.0%	0.4%	32.2%	0.9%
Composition	1.2%	1.1%	0.0%	0.1%	2.4%	36.0%	4.4%
SME	3.8%	2.3%	0.1%	0.5%	6.8%	22.0%	10.5%
Medium	15.5%	4.3%	1.5%	2.8%	24.1%	9.2%	29.8%
Large	36.5%	4.9%	7.7%	17.1%	66.2%	0.6%	54.4%
Total	**57.3%**	**12.8%**	**9.4%**	**20.5%**	**100.0%**	**100%**	**100%**

Source : Survey calculations based on GST data.

7. The GST tax base cannot be related to states' consumption base because the most recent data are for 2011-12 and, moreover, they suffer from significant under-reporting of consumption by richer households which would significantly influence the magnitudes and their state-wise distribution.

8 This category consists of transactions reported by firms that are not part of GST, for example sales and purchases of petroleum products.

- below-composition limit, Rs. 20-100 lakhs (the current upper limit of the composition scheme is Rs. 150 lakhs);
- small and micro enterprises (SMEs), Rs. 1-5 crore;
- medium, Rs. 5-100 crore; and
- large firms above Rs. 100 crore.

2.17 This classificaton is shown both by number of enterprises and their turnover.

2.18 Unsurprisingly, the data show that the distribution of turnover is very skewed. The registered below-threshold firms account for 32 percent of total firms[9] but less than 1 percent of total turnover, while the largest account for less than 1 percent of firms but 66 percent of turnover, and 54 percent of total tax liability.

2.19 Registered smaller firms (the first three categories) seem to be equally involved in selling to consumers (B2C) and selling to other firms (B2B). Medium and large firms, in contrast, have a much greater presence in B2B than B2C transactions.

2.20 Before the GST was introduced, it was expected that small dealers who sell directly to consumers would chose the composition scheme while those who sell to bigger companies would opt (or be forced) into regular registration, because purchasing firms would not buy unless they could get input tax credits.

2.21 It turns out that about half the transactions of the below-threshold firms which nonetheless voluntarily chose to comply are actually in the B2C space. This suggests that there are, in fact, other motivations for participation, beyond simply being a supplier to larger companies.

2.22 Table 4 provides evidence that small B2C firms want to be part of the GST because they *buy* from large enterprises. In fact, 68 percent of their purchases (1.7/2.5, from the first column) are from medium or large registered enterprises, giving them a powerful incentive to register, so they could secure input tax credits on these purchases.

Table 4. Cross-table of Supplier and Purchaser by Turnover Group

		Purchaser Turnover Category					
		Threshold	Below composition	SME	Medium	Large	**Total**
Supplier Turnover Category	Threshold	0.0%	0.1%	0.1%	0.1%	0.1%	**0.3%**
	Below composition	0.2%	0.4%	0.5%	0.6%	0.4%	**2.2%**
	SME	0.5%	1.0%	1.6%	2.2%	1.3%	**6.7%**
	Medium	1.0%	2.0%	4.8%	10.9%	8.3%	**27.0%**
	Large	0.7%	1.1%	4.1%	17.3%	40.6%	**63.8%**
	Total	**2.5%**	**4.6%**	**11.1%**	**31.1%**	**50.7%**	**100.0%**

Source : Survey calculations based on GST data.

[9] Defined as those which filed non-zero GSTR3B returns in the first 5 months.

INTERNATIONAL TRADE, INTER-STATE TRADE AND ECONOMIC PROSPERITY

2.23 Last year's *Survey* provided the first estimates of inter-state trade data in India based on tax data. Those estimates had to be backed out from payments of inter-state taxes (CST) under the pre-GST regime. This year GST returns provide direct data on inter-state trade and its many related dimensions.

2.24 Even more exciting is that for the first time in India's history it is possible to know the state-wise distribution of *international* exports of goods and services. Table 5 provides these data. Five states—Maharashtra, Gujarat, Karnataka, Tamil Nadu, and Telangana—in that order account for 70% of India's exports.

Table 5. Share of States in Export of Goods and Services

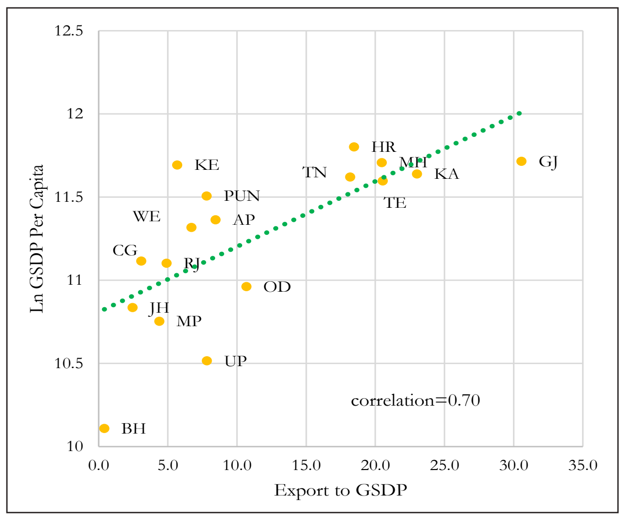
State	% share	Cumulative
MH	22.3%	22.3%
GJ	17.2%	39.5%
KA	12.7%	52.3%
TN	11.5%	63.8%
TE	6.4%	70.1%
HR	4.9%	75.0%
UP	4.8%	79.8%
WE	3.2%	83.0%
AP	2.8%	85.8%
OD	2.0%	87.8%
DEL	1.9%	89.7%
RJ	1.8%	91.5%
KE	1.7%	93.2%
PUN	1.7%	94.8%
MP	1.3%	96.1%
GO	0.9%	97.0%

Note: Export of Goods and Services exclude non-GST exports (such as petroleum).

Source : Survey calculations based on GST data.

2.25 Since these data are available for the first time, one can immediately answer the question of whether prosperity is related to export performance. Figure 4 shows that the conventional wisdom is correct: a state's GSDP per capita is highly correlated with its export share in GSDP (for the 20 major states).[10] The one major outlier in the chart is Kerala, but only because it is a large recipient of remittances. If remittances are added and created a broader globalization index for states, Kerala may not be an outlier.

Figure 4. International Exports and States' Prosperity



Source : Survey calculations based on GST data and CSO.

2.26 Last year *Survey* had estimated that India's inter-state trade in goods was between 30 and 50 percent of GDP, a relatively high number compared to other countries. GST data suggests that India's internal trade in goods and services (excludes non-GST goods and services) is actually even higher: about 60 percent of GDP.

2.27 Tables 6 provides data on inter-state trade:

- The five largest exporting states are

[10] The plot is very similar when extended to all the states.

Maharashtra, Gujarat, Haryana, Tamil Nadu and Karnataka;

- The five largest importing states are Maharashtra, Tamil Nadu, Uttar Pradesh, Karnataka and Gujarat;
- The states with the largest internal trade surpluses are Gujarat, Haryana, Maharashtra, Odisha and Tamil Nadu.

2.28 Two interesting questions arise. First, are the states that export the most also the ones that import the most? Relatedly, are the states that trade the most the ones that are the most competitive and run the largest trade surpluses? Figures 5 and 6 suggest that the answers are: yes and yes.

Table 6. States' Share in Interstate Trade and their Net Exports

State	Exports	State	Imports	State	Net Exports
MH	15.7	MH	13.7	HR	26.1
GJ	11.3	TN	7.8	GJ	20.1
HR	9.4	UP	7.8	OD	6.6
TN	8.4	KA	7.3	MH	5.0
KA	7.0	GJ	7.1	DEL	2.6
DEL	6.0	HR	6.9	TN	2.2
UP	5.6	DEL	5.7	CG	1.6
WE	4.0	WE	4.8	JH	0.3
RJ	3.8	RJ	4.7	AP	-1.2
AP	3.6	TE	4.7	KA	-1.3
PUN	3.2	AP	3.7	WE	-4.9
TE	3.0	PUN	3.7	RJ	-6.7
MP	2.4	MP	3.6	PUN	-7.0
OD	2.3	KE	3.1	UP	-9.6
JH	1.8	BH	2.0	MP	-10.4
CG	1.6	OD	1.9	TE	-14.7
KE	0.8	JH	1.7	KE	-20.1
BH	0.2	CG	1.6	BH	-23.6

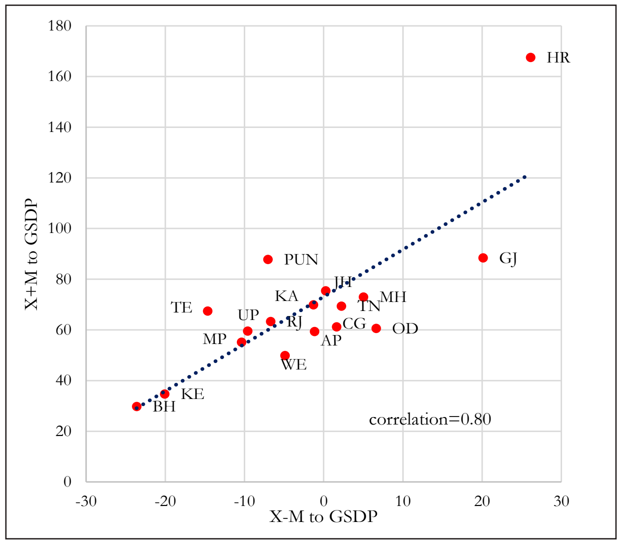
Note: 1. Inter-State trade of goods and service exclude non-GST goods.

2. Export and import are in percent of their respective totals; net exports is share of GSDP.

Source : Survey calculations based on GST data.

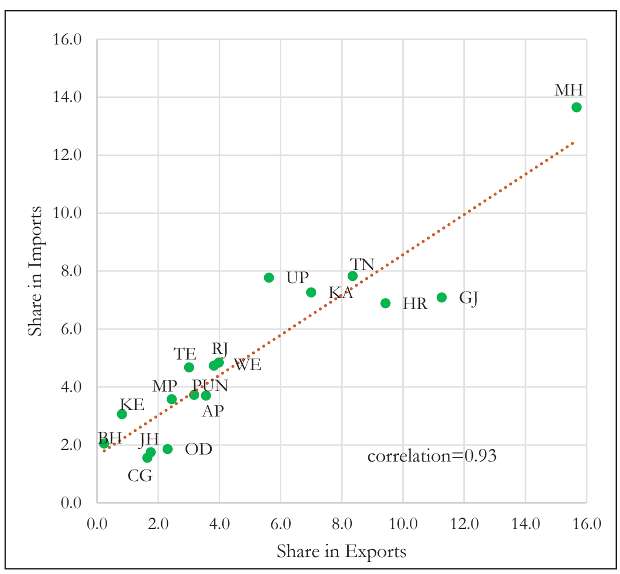
2.29 One can also ask whether internal trade is related to prosperity. Figure 7 plots the share of trade (exports plus imports) in a states' GSDP against its per capita GSDP. The interesting contrast is between Figures 4 and 7. The correlation of per capita GSDP with international exports is stronger than with inter-state trade. More research is required to see if this difference is significant and causally consequential.

Figure 5. Gross and Net Inter-State Trade of States



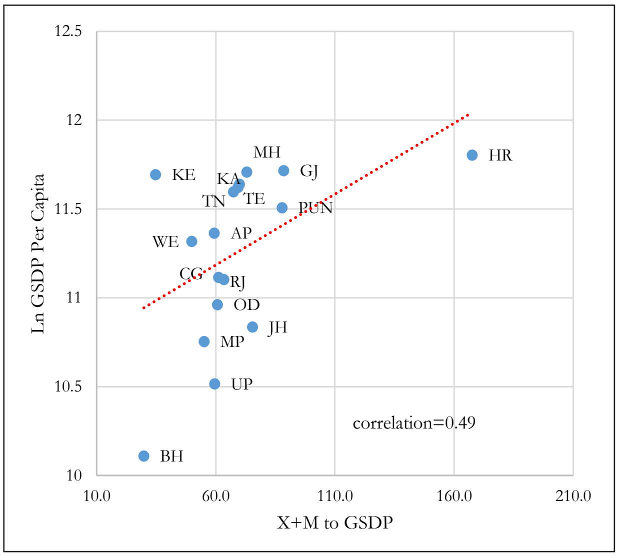
Source : Survey calculations based on GST data and CSO.

Figure 6. Inter-State Exports and Imports of States



Source : Survey calculations based on GST data and CSO.

Figure 7. States' Internal Gross Trade and Prosperity



Source : Survey calculations based on GST data and CSO.

TRADING SUPERSTARS: INDIAN EXPORT EGALITARIAN EXCEPTIONALISM

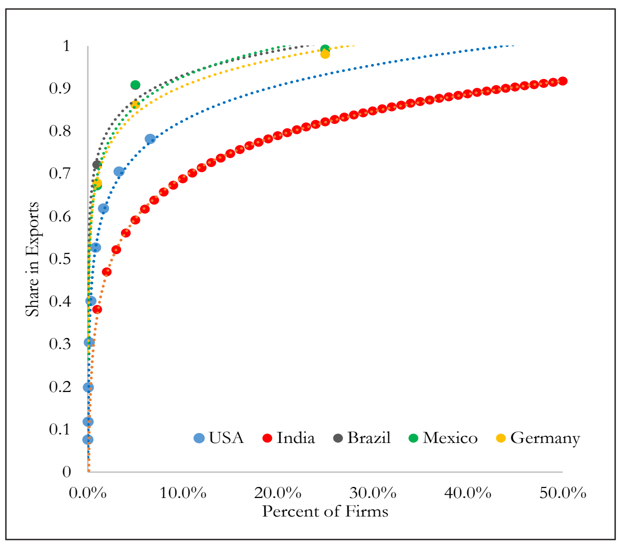
2.30 There is a growing literature that documents the emergence of exports superstars—firms that account for a disproportionately large share of exports. For example, in a sample of 32 countries, Freund and Pierola (2013) find that the top 1 percent of exporting firms account for over 50 percent of exports. Further, it is argued that having and fostering bigness influences the sectoral composition of exports and also helps create comparative advantage and improve long-term prospects. This is in contrast to the more conventional, Schumacherian view that argues for the virtues of smallness, especially small and medium enterprises.

2.31 Until now, no such analysis has been possible for India because firm level export data are difficult to construct. (In principle, DGCIS and Customs have these data but they have not been systematically compiled or used by researchers.) However, with the new GST data it is possible to construct firm-level exports.

2.32 New findings on firm level concentration of exports and compare them with a few other major countries is presented in Figure-8. The results are striking. Export concentration by firms is much lower in India than in the US, Germany, Brazil, or Mexico[11]. For example:

- the top 1 percent of firms accounted for 72, 68, 67, and 55 percent of exports in Brazil, Germany, Mexico, and USA respectively but only 38 percent in the case of India;
- the top 5 percent accounted for 91, 86, 91, and 74 percent in those countries, compared with 59 percent in India; and
- the top 25 percent of firms accounted for 99, 98, 99, and 93 percent in those countries, as opposed to 82 percent in India.

Figure 8. Top Exporter Percentile by Cumulative Export Share



Note: India's export of Goods and Services exclude non-GST exports (such as petroleum).

Source : Survey calculations based on GST data, World Bank's Export Dynamic Database and US Census.

[11] Petroleum and Petroleum products are not included in the data for Brazil, Mexico and Germany, nor for India. However, the US data (from the US census) does include companies in oil and gas extraction.

2.33 There is one caveat which could help explain the atypical Indian distribution: unlike in other countries, Indian data includes exports of services, where concentration ratios tend to be much lower than in manufacturing.

2.34 The implications of such an "egalitarian" Indian export structure are unclear. The evidence cited earlier argues in favor of superstars, because they are dynamic and their expansion can have spillover effects on other firms. But concentration can have disadvantages, including impeding competition.

INFORMALITY OF THE INDIAN ECONOMY

2.35 Finally, the GST data throw up new data that allows a better re-examination of the extent of formality/informality in the Indian economy.

2.36 Informality or rather formality can be defined in at least two senses[12]. First, when firms are providing some kind of social security to employees. In India, government provides this for its employees, and the Employees' Provident Fund Organization (EPFO) provides it to private sector employees in respect of pensions and provident funds; and the Employees' State Insurance Corporation (ESIC) in respect of medical benefits.

2.37 The EPFO contribution is mandatory for industries employing greater than 20 workers, and whose monthly wage/salary is below Rs. 15,000. Above that level, contributions are voluntary. Of the total active members (for whom the monthly contribution is deposited by the employer), 86 percent earn less than Rs 15,000, and about 98 percent have opted for a combination of the 'provident fund-pension' option. The ESIC contribution is mandatory for certain firms, employing greater than 10 workers, and for workers in these firms whose monthly wage/salary is below Rs. 21,000.

2.38 A second definition of formality is when firms are part of the tax net. Since new data on the GST is available, one can define tax formality as firms having registered under the GST.

2.39 Based on these definitions, the magnitude of formal sector firms, turnover, tax liabilities, tax paid, exports, and payroll can be estimated[13]. Table 7 below shows a 2x2 matrix for all these variables for different combinations of social security and GST formality. In this table the NSSO's 73rd Survey Round is used to fill in the cell where a firm is neither part of the tax or social security net and annual turnover is less than GST threshold of 20 lakh. This is the pure informality cell in the sense that firms in them are outside the tax and social security net.[14]

2.40 The following are the key findings.

- About 0.6 percent of firms, accounting for 38 percent of total turnover, 87 percent of exports, and 63 percent of GST liability are what might be called in the "hard core" formal sector in the sense of being both in the tax and social security net.

[12] There are many different definitions of formality/informality. The most common ones are: (a) whether a worker has a formal contract; (b) whether a worker is a regular/salaried worker (as opposed to self-employed or casual); (c) whether a firm is registered with any branch of the government; (d) whether the firm pays taxes; and (e) whether a worker receives social security.

[13] Details are given in Annex II.

[14] The NSSO conducted a survey of Unincorporated Non-Agricultural Enterprises (Excluding Construction) in India between July 2015 and June 2016.

Table-7. Formality of the Indian Economy

		Enrolled in EPFO/ESIC																	
		Number of Firms/ Enterprises (in Lakhs)			Share in Total Turnover			Share in Tax liabilities			Tax Rate (%)			Share in Exports			Employees (crore)		
		Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total
Registered under GST	Yes	4.0	88.3	92.3	38.4	41.0	79.3	63.5	36.5	100.0	16.3	7.0	11.0	86.7	13.3	100.0	4.5	6.7	11.2
	No	0.9	619.8	620.6	13.8	6.9	20.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.5	9.2	10.8
	Total	4.9	708.1	712.9	52.2	47.8	100.0	63.5	36.5	100.0	-	-	-	86.7	13.3	100.0	6.0	15.9	22.0

Note :

1. The EPFO and ESIC numbers are based on contributions received (active subscribers) from April-17 to November-17. For the current analysis, the lower bound of formal payroll is taken. The lower bound is the average number of subscribers (6.0 crore) in April-November 2017 whereas the upper bound is the maximum number of subscribers (7.1 crore) in any month starting from April-17 to November-17.
2. The matching of EPFO and ESIC is done using the Labour Identification Number (LIN). All the entries without LIN in the ESIC are excluded from this analysis to avoid the possibility of double counting. Such enterprises without the LIN, on average, accounted for 25-30 lakh subscribers.
3. For enterprises that are both in the EPFO and ESIC, the maximum of the employment between the two is taken as the appropriate number.
4. ESIC revised the coverage of firms from January 2017. It increased wage/salary limit form 15,000 per month to 21,000 per month for mandatory contribution.
5. Central government payroll excludes defence personnel.
6. Estimate of the non-agricultural workforce is based on the Employment-Unemployment Survey (68th round) 2011-12 of the NSSO.
7. The NSSO's 73rd Round Survey on Unincorporated Non-Agricultural Enterprises (Excluding Construction) in India between July 2015 and June 2016 is used to estimate purely informal payroll/employment; that is, payroll of firms neither enrolled in the EPFO/ESIC nor the GST.
8. For further details see Annex II.
9. NA: Not available

Source : Survey calculations based on GST, EPFO, ESIC and NSS data.

- At the other end, 87 percent of firms, representing 21 percent of total turnover, are purely informal, outside both the tax and social security nets.
- Around 12 percent of firms, accounting for 41 percent of turnover, 13 percent of exports, and 37 percent of tax liabilities are in the tax net but not the social security net. These firms are relatively smaller than those in both nets, since they have a lower average turnover and average tax rate, 7 percent compared with 16.3 percent.
- Finally, less than 0.1 percent of firms accounting for about 14 percent of turnover are in the social security net but not in the GST net. These are mostly firms that are in GST-exempted sectors (such as education, health, electricity), although there are many firms that appear to be outside the GST even though they are in the GST-included sectors. One possible reason is that they fall below the GST threshold, but there might be others.

Non-Farm Payroll

2.41 Turn next to formal and informal non-farm payroll.[15] Formal non-farm payroll from a social security perspective is estimated at about 7.5 crores, or 31 percent of the non-agricultural workforce. This estimate includes government non-farm payroll (center and states), which is roughly estimated at 1.5 crore (excluding defence personnel).

2.42 The tax-based numbers exclude government employees and also non-farm payroll that takes place in sectors currently outside the GST such as health and education, although if firms in these sectors register for other reasons, they will be part of estimated non-farm payroll.

2.43 Taking all these into account, and adding back government employment, the formal non-farm payroll from a tax definition is estimated at 12.7 million. This implies that nearly 53 percent of the non-agricultural workforce (240 million) is in the formal sector.

2.44 It is important to emphasize that these estimates are enterprise-based not household-based definitions of employment and also exclude the agricultural sector. With these caveats in mind, this striking conclusion follows. These estimates for formal non-farm payroll, ranging from 31 percent in the case of social security-defined formality and 53 percent in the case of tax-defined formality, are considerably greater than current beliefs about the size of formal sector non-farm payroll.

CONCLUSION

2.45 This chapter is a mere sampler, giving a hint of the insights that analysis of the GST will be able to provide in the future. A whole new world has indeed opened up to followers of the Indian economy, and much exciting new research lies ahead.

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[15] There have been few estimates of the informality of the Indian economy with the most comprehensive being the NSS 68th Round of Employment and Unemployment Survey 2011-12.