

# Organisational effectiveness and tax compliance in Punjab

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# Final Report

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**Project Title: Organisational Effectiveness and Tax Compliance in Punjab**

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## PROJECT SUMMARY

In this project we hoped to initiate a formal relationship with The Punjab Revenue Authority (PRA), the leading tax collector of Punjab. This authority is responsible for the Sales Tax on Services and the Punjab Infrastructure Development Cess (PIDC). This project served as the basis for our engagement with PRA and proved vital in undertaking exploratory research, identifying areas of collaboration, and creating a long-term relationship with the tax authority. As a result, the research team signed an MoU outlining potential areas of research and the nature of the engagement.

This report outlines two main research areas shaped by the demands of PRA, containing details on the research findings and implications of our analysis.

1. The first research area aims to assess the impact of technology in improving information trails and tax outcomes for PRA. This research evaluates the electronic invoice monitoring system to generate evidence for the future direction and scope of this intervention.
2. The second research area focuses on addressing an immediate policy concern of the provincial government and the business community in Punjab. It is a study on the economic activity in the dry ports of Punjab, with a special emphasis on the impact of the Punjab Infrastructure Development Cess.

# ELECTRONIC INVOICE MONITORING SYSTEM

## RESEARCH OVERVIEW

One of the toughest challenges for most developing and middle-income countries is to increase the revenue collected through different taxation instruments. Pakistan is no stranger to this conundrum. The country has been plagued by rising fiscal deficits and low tax-GDP ratios, with the World Bank estimating a gap of 50% in collection across all taxes (assuming a realistic compliance rate of 75% for developing and middle-income countries). This large gap in tax collection is a combination of low tax morale, a sizable informal economy, and weak enforcement capabilities of the tax authorities.

After the 18<sup>th</sup> amendment, the collection of the Sales Tax on Services was completely devolved to the Provincial Revenue Authorities. The provincial tax regime inherited challenges similar to their federal counterpart. The Punjab Revenue Authority (PRA) is the agency responsible for the collection of this value-added tax on services. This tax instrument was the single biggest source of tax revenue collected by Punjab, making it crucial to the revenue stream of the government. In 2021-22, the sales tax on services contributed almost 60% (PKR 170 billion) of the total provincial tax revenue. In the context of creating greater fiscal space for development in Punjab, PRA has undertaken several policy measures to bolster revenue collection and minimize instances of tax evasion.

Most importantly, PRA introduced an Electronic Invoice Monitoring System (EIMS) to collect invoice level data from service providers in real-time. EIMS is comparable to Electronic Fiscal Devices or Electronic Billing Machines in its function. Taxpayers are required to install an encrypted block of code that fetches real time data (using the internet) of all transactions conducted at the Point of Sales. By embedding the required software (and hardware if necessary), the Authority can capture transactions and invoices issued from the registered service provider. The law has also defined an eligibility criterion for the adoption of this technology. All registered taxpayers in designated sectors having an annual turnover of PKR 10 million and above in FY 2017-18 or in a subsequent financial year are liable to be monitored through EIMS. Eligible taxpayers are given a deadline of three months within the close of the financial year in which they become liable to become compatible with EIMS, given they use a computerized system for recording transactions. Firms not using computerized systems for recording transactions and issuing invoices are given a deadline of six months within the close of the financial year to ensure compatibility with EIMS.

The invoice monitoring system generates a unique digital invoice for each transaction and is recorded on the server of the tax authorities. As per the rules, each invoice must contain

the description of the service, quantity and price, amount excluding sales tax, total applicable tax, and the tax inclusive price of the service. Taxpayers may only use invoices generated through the EIMS. Our research has shown there are several issues with standardization of invoices, leading to errors negatively affecting the quality of data.

The new policy measure was rolled out across Punjab in various phases, focusing on a handful of services. PRA conducted orientation and training sessions with taxpayers to raise awareness amongst the target service providers. These taxpayers were briefed on EIMS and were given technical guidance to ensure compliance with the new legal obligations. Non-compliant taxpayers were sent out notices/warnings in accordance with any penalties outlined in the Punjab Sales Tax Act.

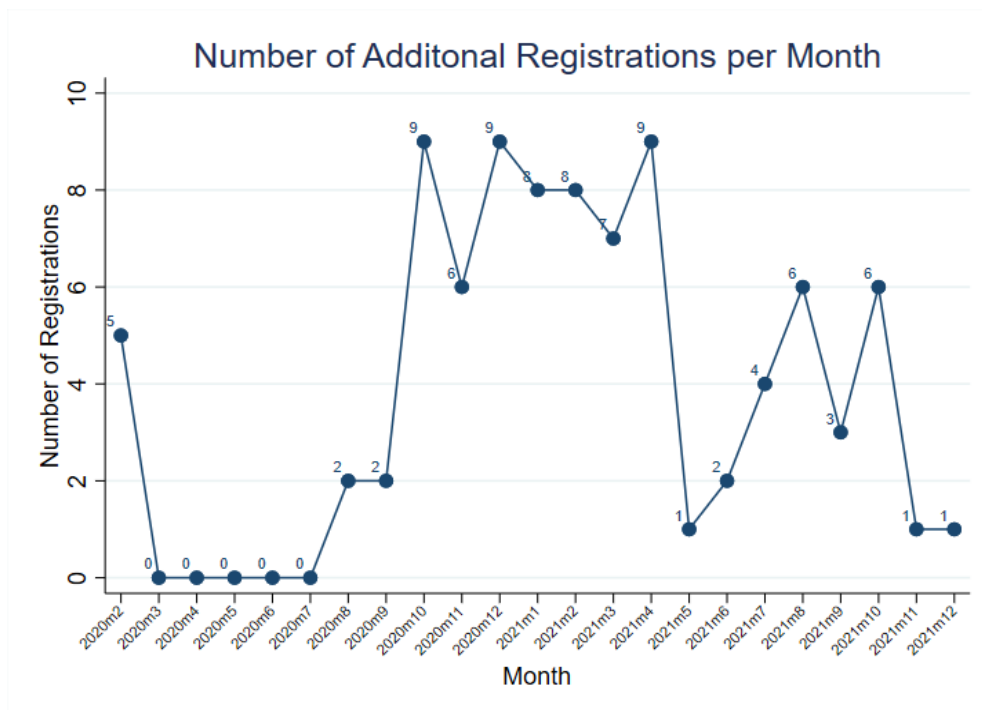
In theory, the government's motivation behind using this technology is to improve tax yields and prevent tampering of reported sales/transaction data forwarded to PRA. Our research is focused on evaluating the impact of this intervention (as per the policy objectives) on the restaurant sector since it contains the largest number of EIMS adopters across service categories. By quantifying the effectiveness of the policy measure, we can empower the government in making an informed decision about the scale and importance of EIMS in the future. The project aims to answer two primary questions.

## **RESEARCH QUESTIONS**

- 1. How did the introduction of the Electronic Invoice Monitoring System impact the reported sales and tax liability of treated firms?**
- 2. What are the major considerations and constraints behind a firm's decision to adopt the Electronic Invoice Monitoring System**

## DATA

The data used for the purpose of our research consisted of anonymized Sales Tax Returns provided by the Punjab Revenue Authority from 2012-2021. The data includes about 2,500 total restaurants. It contained firm level reported sales, input costs, and the tax returns for all registered restaurants in Punjab. The data is on a monthly level for each firm beginning from the first month the firm gets registered. The rollout of these machines started in February 2020; the exact date of adoption of EIMS was available for all firms in our study. The analysis is for restaurants only regardless of their turnover.

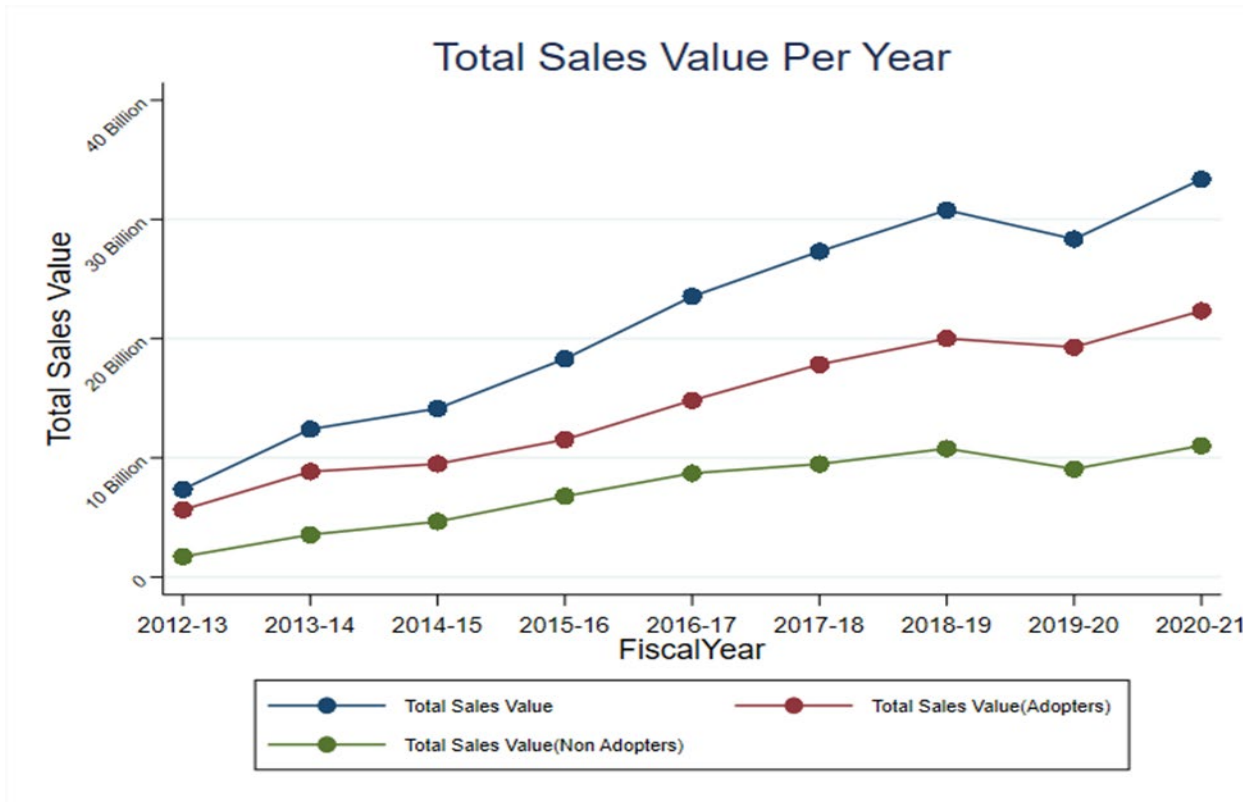


**Figure 1: EIMS Registrations over Time**

Notes: This graph shows the number of registrations for IMS per month.

Figure 1 shows the number of taxpayers adopting the EIMS system in each month. We see that while the first adopters entered the system in February 2020, registrations really picked up in October 2020, and that new taxpayers continued to be registered right up to the end of our data period in December 2021. By December 2021, a total of 89 taxpayers (unique restaurants) had adopted EIMS. These taxpayers form our *treatment group*. And we will compare them to other, similar firms that did not take up EIMS (the *control group*) to estimate how EIMS adoption affected the treatment group.

Despite the healthy take-up of EIMS, not all eligible taxpayers have adopted. The non-adopting taxpayers are interesting, both because we will use them as our control group, but more broadly because they can help us understand what the barriers are that are preventing all eligible firms from adopting, and how PRA may be able to increase adoption going forward.



**Figure 2: Total Sales Value of Adopters and Non-Adopters**

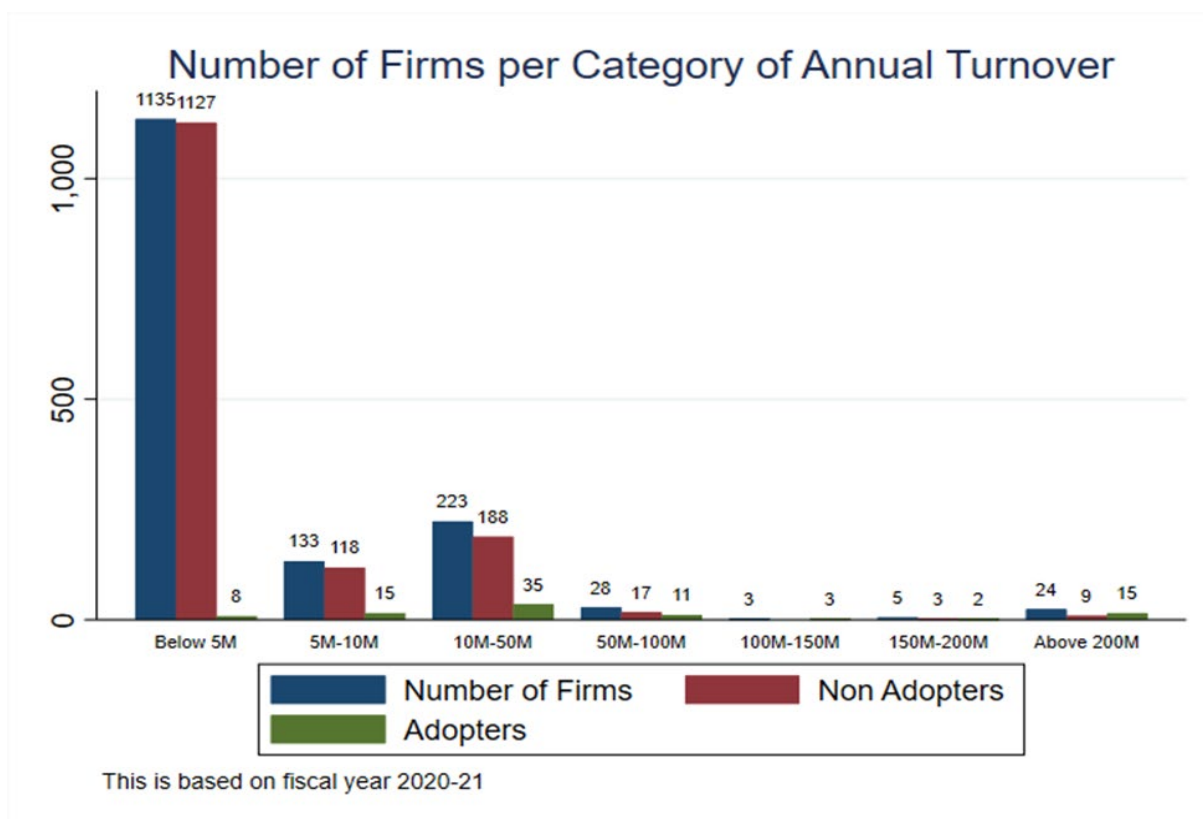
Notes: This graph shows the general trend in the revenue reported by the firms over the time period of the data. There is an increasing trend in the revenue as predicted. However, there is a decrease in 2020 which is due to Covid-19. The rollout of the machines started in Feb 2020.

**Figure 2** shows the growth in total sales over time in the two groups: those who have adopted EIMS by December 2021, and those who have not. We see that the adopters account for more than half of total sales value, likely since, as we will see, the largest taxpayers are most likely to adopt. Also, we see that the dip in sales during the onset of the COVID-19 pandemic in 2019-20 is smaller for the adopting firms than the non-adopters.

In Figure 2 we saw that adopting taxpayers tended to be larger than non-adopting taxpayers. Figure 3 explores this in greater detail. We break up taxpayers by the size of their annual turnover and whether they have adopted EIMS. We see that for taxpayers

with turnover above Rs. 50 million, the majority have adopted EIMS. However, for taxpayers with turnover between Rs. 10 million and Rs. 50 million, all of whom are eligible to adopt EIMS, only 35 out of 223, or 16% have adopted EIMS.

**Figure 3: Adoption of EIMS by Taxpayer Size**



Notes: This graph shows the number of firms, adopters, and non-adopters per category of annual turnover. The annual turnover is calculated by adding the monthly revenue for the whole fiscal year.

In Table 1 below we explore these differences further. We divide taxpayers into three groups. First, *adopters*, those who have adopted the EIMS system. Second, *notified non-adopters*, those who are eligible to adopt EIMS, and have been notified that they are required to adopt, but have not yet done so. Third, *not notified non-adopters*, those who are eligible to adopt EIMS but have not done so and have yet to be notified of their requirement to adopt. In the table we compare both the adopters and the not notified non-adopters to the notified non-adopters. The first column shows averages and standard deviations of a range of characteristics of the notified non-adopters. Then, we show the difference between the adopters (column 2) and the not notified non-adopters (column 3)

and the notified non-adopters. The final column performs an F test for the absence of any difference between the three groups.

The top part of the table confirms the patterns in Figure 3: taxpayers that have adopted EIMS are larger than either type of non-adopter. The middle panel shows that the non-adopters are not significantly different on a range of firm characteristics. However, the bottom panel shows that the adopters and non-adopters do differ in where they are located. Notified non-adopters are more likely to be in Lahore, perhaps reflecting a concentration of enforcement activities in Lahore instead of other big cities. Correspondingly, adopters are more likely to be in Faisalabad, Rawalpindi and Gujranwala than are either type of non-adopters.



**Table 1: Comparison of Characteristics of Adopters and Non-Adopters**

|                                     | Eligible, Notified<br>Non-Adopters<br>Mean / (sd) | Difference Relative to<br>Notified Non-Adopters |                              | Test<br>All=0    |
|-------------------------------------|---|---|------------------------------|------------------|
|                                     |   | Adopters  | Not Notified<br>Non-Adopters |                  |
| <i>Revenue Characteristics</i>      |   |   |                              |                  |
| Service Value<br>(PKR)              | 5,244,953<br>(3,238,927)                          | 10,653,846*<br>(4,244,951)                      | -3,227,626<br>(3,553,423)    | 19.94<br>[0.00]* |
| Cost<br>(PKR)                       | 2,436,688<br>(2,190,002)                          | 7,006,081*<br>(2,871,543)                       | -1,787,507<br>(2,403,446)    | 17.45<br>[0.00]* |
| Tax Liability<br>(PKR)              | 421,713<br>(275,448)                              | 985,801**<br>(361,098)                          | -241,140<br>(302,250)        | 21.50<br>[0.00]* |
| Value Addition<br>(per unit)        | 0.574<br>(3.247)                                  | -0.041<br>(4.275)                               | -1.682<br>(3.592)            | 0.27<br>[0.6054] |
| <i>General Characteristics</i>      |   |   |                              |                  |
| Age<br>(in days)                    | 2146.5***<br>(125.3)                              | -143.1<br>(164.1)                               | -115.2<br>(137.4)            | 0.05<br>[0.8163] |
| AOP                                 | 0.017<br>(0.026)                                  | 0.020<br>(0.034)                                | 0.028<br>(0.028)             | 0.12<br>[0.733]  |
| Business                            | 0.862***<br>(0.041)                               | 0.027<br>(0.054)                                | 0.037<br>(0.045)             | 0.06<br>[0.8045] |
| Company                             | 0.034*<br>(0.017)                                 | 0.003<br>(0.022)                                | -0.027<br>(0.018)            | 3.53<br>[0.0609] |
| Individual                          | 0.069*<br>(0.028)                                 | -0.032<br>(0.037)                               | -0.024<br>(0.031)            | 0.10<br>[0.7529] |
| <i>Geographical Characteristics</i> |   |   |                              |                  |
| Lahore                              | 0.782***<br>(0.038)                               | -0.202***<br>(0.045)                            | -0.252***<br>(0.044)         | 2.20<br>[0.138]  |
| Rawalpindi                          | 0.030<br>(0.023)                                  | 0.099***<br>(0.027)                             | 0.063*<br>(0.027)            | 3<br>[0.0836]    |
| Gujranwala                          | 0.012<br>(0.012)                                  | 0.029*<br>(0.015)                               | 0.006<br>(0.014)             | 4.53<br>[0.0335] |
| Faisalabad                          | 0.024<br>(0.021)                                  | 0.053*<br>(0.025)                               | 0.072**<br>(0.024)           | 1<br>[0.3165]    |

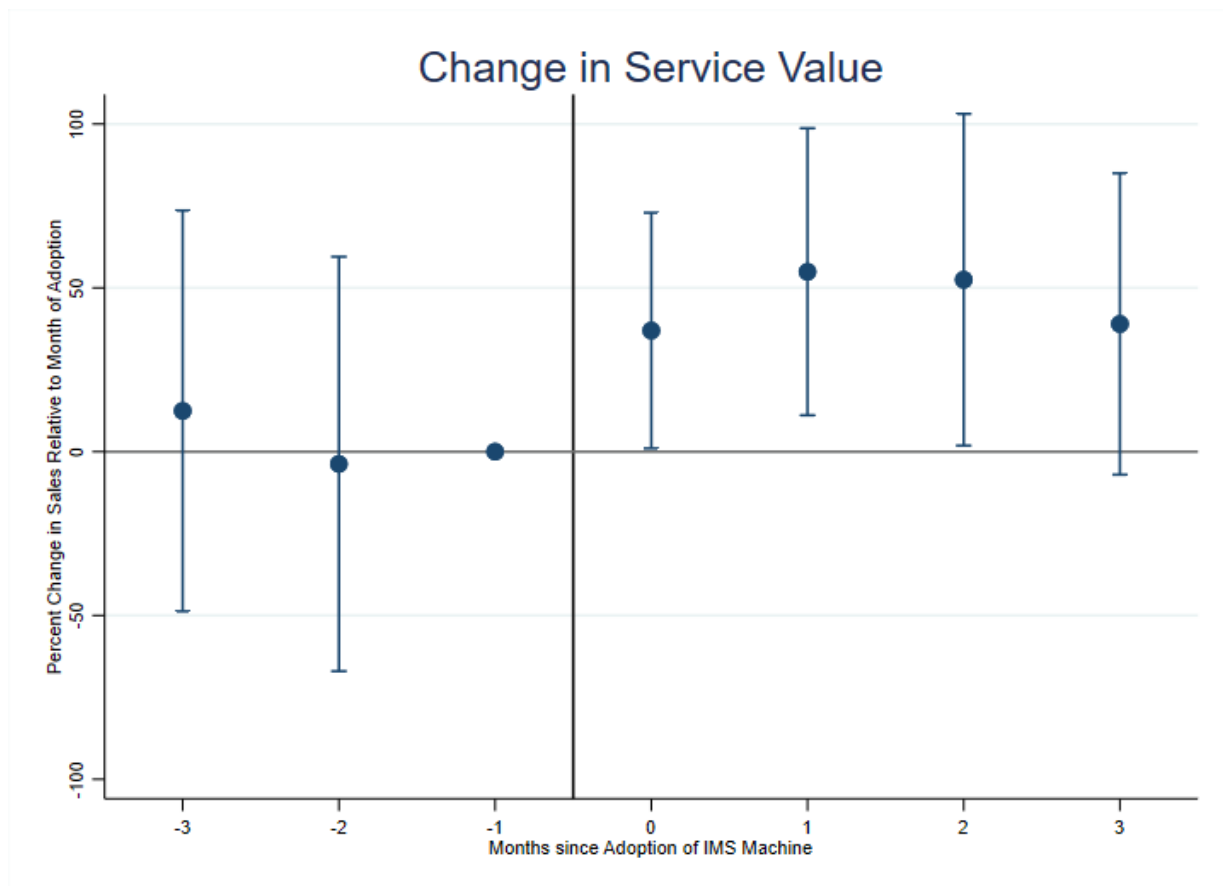
Notes: The table shows the difference between the adopters and non adopters with the control group consisting of non adopters that were notified but still did not adopt. For continuous variables, the first column shows the mean and standard deviation brackets of the variable in the control group. The next two columns show regression coefficients on the treatment group with their standard errors in brackets. The final column shows the statistic on the joint test that no treatment group differs from the control group. For indicator variables, the interpretation of the coefficients is the probability that they will fall in a particular category.

## ANALYZING EFFECTS OF ADOPTING EIMS

To study the impacts of adopting EIMS, we analyse how a range of tax-relevant outcomes change around the time that a taxpayer begins to use EIMS. As we can clearly see for the case of the volume of sales in figure 2, there is a natural tendency for reported sales to increase over time. As such, we need a control group of taxpayers that did not adopt the EIMS system to estimate the extent to which the sales reported by taxpayers that do adopt EIMS would have grown even if they had not adopted EIMS. For this, we use the taxpayers who are eligible to adopt EIMS but had not, as of December 2021, adopted EIMS.

We compare reported sales in the 3 months before and after adoption for firms that adopt EIMS to the reported sales of the non-adopting firms to estimate the impact of adopting EIMS on reported sales. Figure 4 shows the results of this comparison. Each dot is our estimate of the difference between the adopting and non-adopting taxpayers in that month, and the vertical lines display our confidence in the estimate.

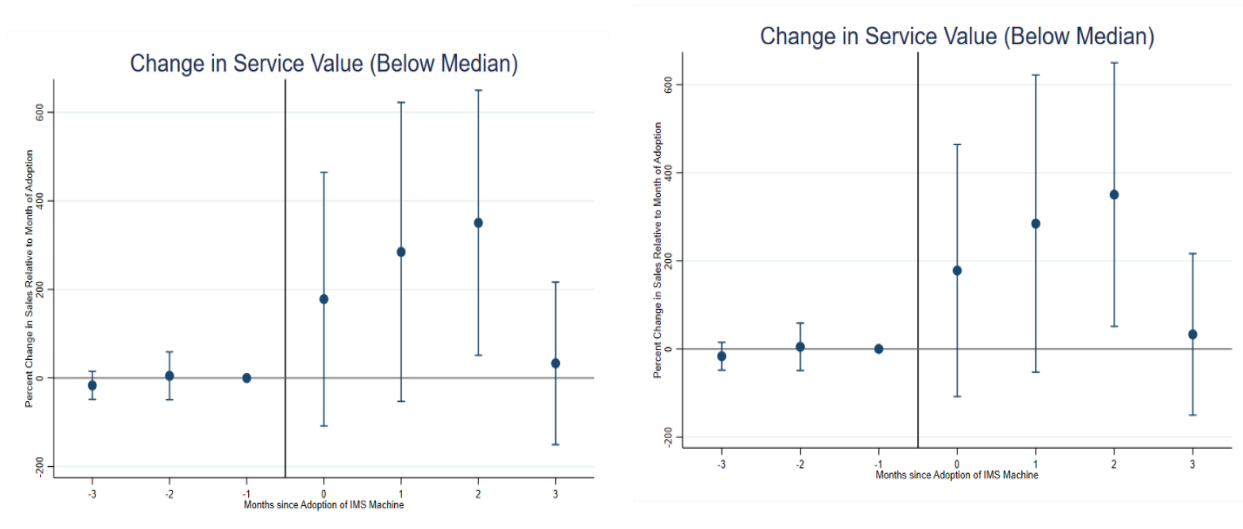
**Figure 4: Reported Sales Increased by 43% After EIMS Adoption**



We see that the estimates are all close to zero in the months leading up to EIMS adoption. This indicates that the adopting and non-adopting firms have sales that are growing at roughly the same pace before the EIMS adoption, so that the non-adopters are a good control group. After the taxpayers have adopted EIMS, however, their sales diverge sharply from the non-adopters. All the dots for the months after adoption are above zero, and we can confidently rule out that there is no difference. Our overall estimate is that reported sales increased by around 43% because of the EIMS system, an impressive increase.

To measure the impact on sales by restaurant size, we divided the above sample (Figure 4) into two subsamples: one above the median and the other below the median of annual turnover. We see that the sales go up in both the samples, however, the increase in reported sales is higher for smaller restaurants (around 170%) as compared to larger restaurants (around 27%) after IMS adoption as shown in Figure 5.

**Figure 5: Change in Service Value After EIMS Adoption**



**Figure 6: Tax Liability Increased by 27% After EIMS Adoption**

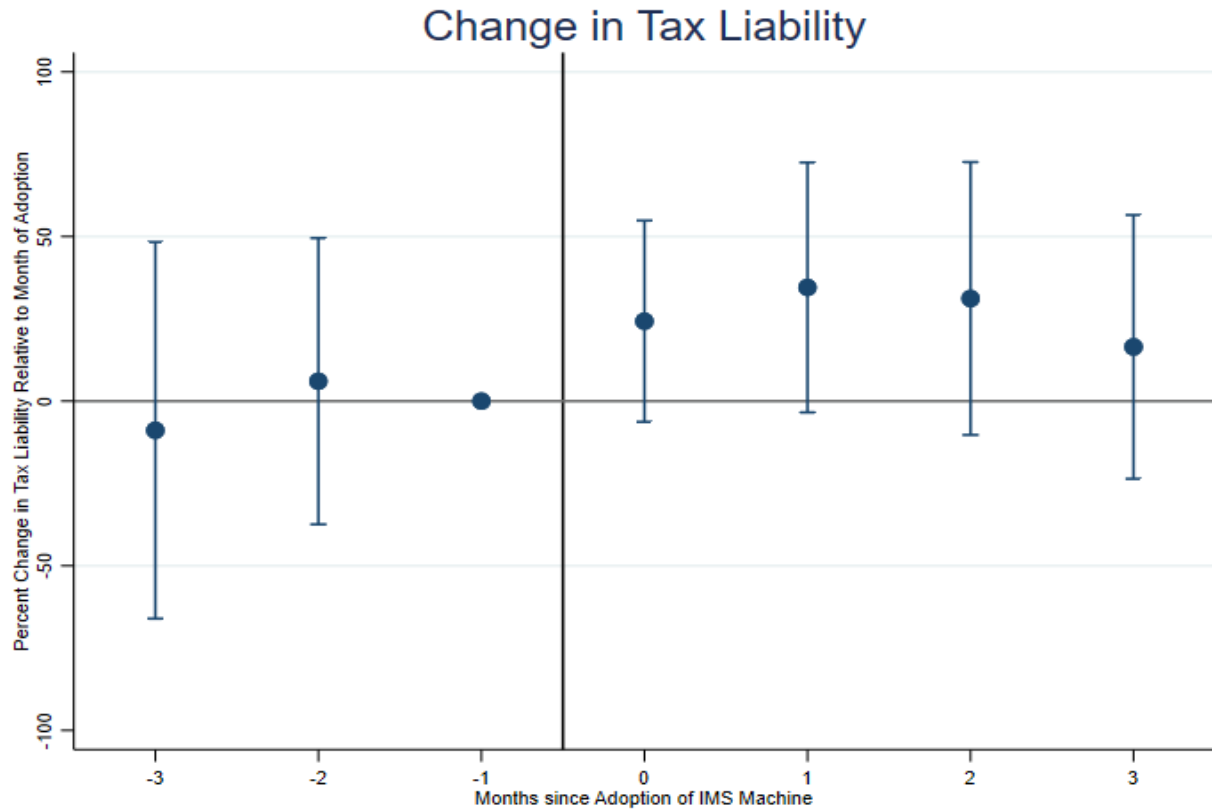


Figure 6 shows that there was a corresponding increase in the tax liability of the taxpayers that adopted EIMS of around 27%. Reported costs increased upon EIMS adoption also, meaning that the 43% increase in sales did not fully flow through to an increase in tax liability.

Summarizing, our analysis suggests that within three months of adoption,

**Reported Sales Value goes up by ~43%**

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**Tax liability goes up by ~27%**

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**Value added per unit of output goes up ~0.4**

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This shows a positive impact of these machines on the overall goal i.e., increase in actual revenue reported by the firms.

The increases are large, suggesting that the returns to investment in rolling the EIMS system further are very large. Of course, this raises the question of identifying what the barriers to additional adoption of EIMS are.

For this we turn to a discussion of a series of focus groups we ran together with taxpayers to identify key bottlenecks for adoption.

## ANALYSING ADOPTION CONSTRAINTS- FOCUS GROUP DISCUSSIONS

To address the second research objective of understanding the considerations, incentives and constraints affecting the adoption of EIMS, we conducted focus groups with firms that had either adopted the machines, or with those that remained non-compliant with EIMS. This is particularly important considering the positive revenue impact of the machines and the low adoption rate of EIMS. The outcomes of the focus group shed some light on factors that are considered important by the taxpayer in the adoption of a new policy measure (EIMS to be specific). From a policy standpoint, it also gave us information on some of the barriers to adoption of EIMS. The discussion also touched upon the concept of incentive schemes to increase adoption.

## KEY FINDINGS

Firms unanimously agreed that the most important consideration to decide the adoption of EIMS is based on tangible financial benefits offered to the service provider. These benefits can take the shape of tax exemptions, reduced tax rates or other special incentives offered to adopters. In the status quo, no such incentives were offered by PRA and consequently adoption remains low.

The respondents who had not yet enrolled in EIMS cited issues of software compatibility and integration with PRA's block of code. Some of the non-compliant taxpayers did not have proper in-house IT departments, leading to a reliance on ready-made software that cannot be modified with EIMS.

Taxpayers in the focus group who had adopted EIMS believed that it had no significant impact on improving accounting practices or business processes within the firm. Our respondents believed that there was a small but positive impact on the return filing process; The size and impact on compliance costs was perhaps minor, given that firms still had to maintain cumbersome paper records for up to 8 years.

The participants believed that adoption might also be affected by competing firms. The effects varied across restaurants. Some restaurants offered a unique product or had a well-established brand. These restaurants remained unaffected by the competing restaurant's decision to adopt or not. However, some restaurants competed only on price; service providers evading taxes could capture consumers from compliant firms due to the consumer wanting to pay less. The affect could nudge taxpayers to be non-compliant with EIMS to stay price competitive.

Since consumers generally tend to gravitate towards lower prices, they fail to report or boycott firms not issuing tax receipts/invoices (assuming these evading firms are charging less than compliant firms). When consumers are not involved in the process, they might gravitate towards tax evading firms as mentioned above. To create deterrence for non-compliant restaurants, the participants of the focus group called for consumer incentive schemes to be implemented. These schemes could offer prizes and monetary incentives for consumers to verify invoices and report tax offenders.

## POLICY IMPLICATIONS

- The results of our regression show a sizable positive effect on the reported sales for treated firms. The tax liability also increases post-treatment, although the effect is not as considerable as the reported sales. This means that taxpayers are not simply increasing costs to cover the entirety of the increase in reported sales. Hence, the revenue impact for the government is net positive. From a policy standpoint, our research can be used to aggressively promote investment for the adoption of EIMS in restaurants in Punjab. Greater coverage of EIMS could generate valuable revenue and the government would be a step closer in harnessing the full potential of the province's largest source of income via tax. Our research could be used to explore the expansion of Invoice Monitoring Systems to other taxable service categories.
- To fully reap the benefits of EIMS in Punjab, the government may need to re-evaluate current incentive strategies for taxpayers. Our research has shown that taxpayers consider potential incentives critical to the adoption of EIMS. Research should be conducted to determine which other incentive strategies could prove effective in motivating firms to adopt.
- Steps like removing the maintenance of manual records for EIMS users could increase the opportunity cost for non-adopting firms, nudging them towards compliance. Other barriers to adoption, like software compatibility and technical support, also need to be revisited to get more taxpayers integrated with EIMS.
- In addition, consumer incentive structures can add a useful dimension of accountability and deterrence for firms engaged in tax evasion. Our research has shown that the accountability chain may be broken at the final (consumer) stage of the value addition process as most consumers may be willing to sacrifice compliance for a lower price. Such consumer incentive mechanisms are used by the Federal Board of Revenue to improve consumer awareness and participation in the tax process. Devising a similar strategy on a provincial level could improve compliance.
- Effective enforcement strategies may also be determined through experimentation, giving PRA insight into how different taxpayers respond to varied intensity of enforcement.

# REVIVAL OF ECONOMIC ACTIVITY IN THE DRY PORTS OF PUNJAB

## RESEARCH OVERVIEW

According to the prevalent business sentiment, the dry ports of Punjab no longer the issue of Cess had been debated amongst the business community and the provincial government, with the private stakeholders calling for a removal of Cess due to its detrimental impact on the economic activity in the province. Importers and businesses involved in the import of goods believed Cess to be increasing the costs of doing business, as well shifting commercial activity outside the province of Punjab. Importers believe that in order to use the dry ports of Punjab, they have to pay Cess twice; once in Sindh (1.25%) and then again in Punjab. Consequently, businesses prefer to avoid double taxation and get majority of their shipments cleared from the ports of Karachi. For the Provincial Government, Cess was a source of revenue amounting to USD 30 Million in 2020-21.

Our research was conducted on the demand of the Punjab Revenue Authority and the Finance Minister of Punjab, with the main aim of verifying the claims of the private stakeholders and providing evidence for informed policy making. In our project, we attempted to study the impact of Cess on economic activity in the dry ports of Punjab and to ascertain other forces that may be shifting this activity out of Punjab.

In 2015, the Punjab Government promulgated the Punjab Infrastructure Development Cess (PIDC) Act to “to levy and collect infrastructure development cess on transportation of goods manufactured, produced or consumed in, imported into or exported out of the Punjab.” The purpose of the Cess was to provide revenue to the government for the maintenance and development of infrastructure required to cater to the handling, processing and storage of goods imported/exported from Punjab. Cess was to be paid at 0.90 % of the assessed value of the goods at both the dry and airports of the province. PIDC was exempt on the import of fresh food items (e.g., fruits and vegetables) and any other category of goods exempt by the Federal Government.

## RESEARCH QUESTIONS

- 1. How has Cess Impacted the Economic Activity in the dry ports of Punjab?**
- 2. What are the other constraints to improving economic activity in the dry ports of Punjab?**



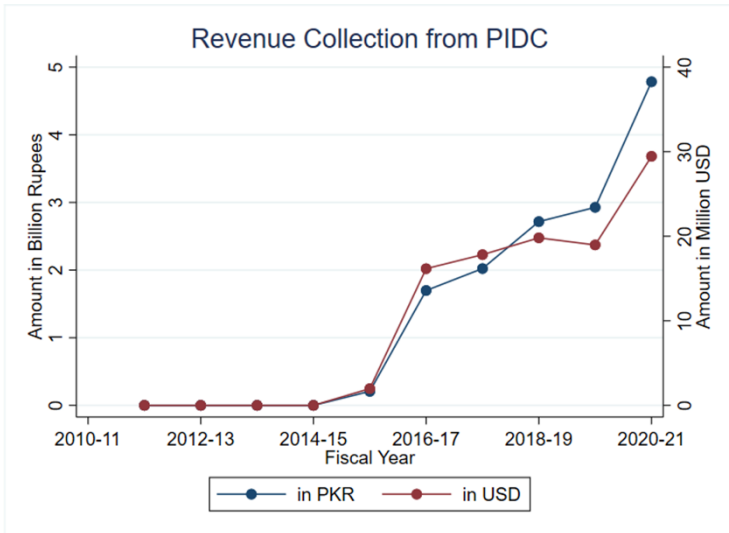


Figure 1

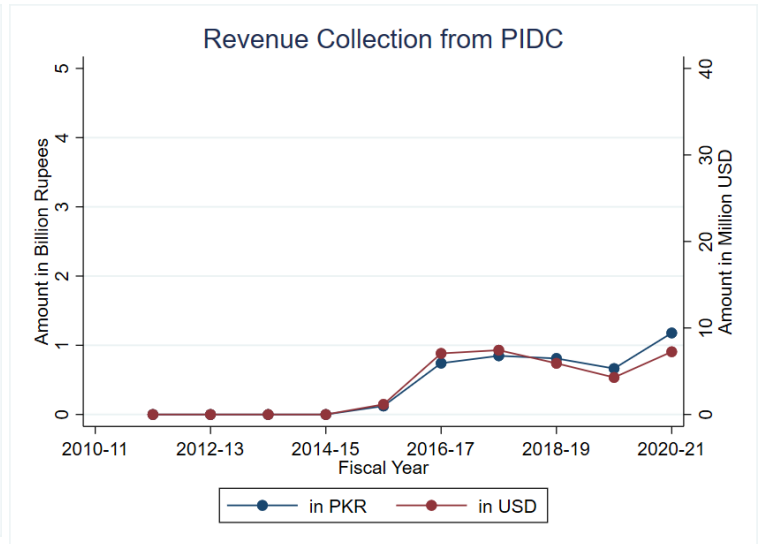


Figure 2

From the figures above, it can be observed that Cess has been increasing overall in both Dollar and PKR terms, with the increase in the PKR value being greater than the dollar value. However, as seen in figure 2, the Cess collected from the dry ports has been stagnating around the 10 million USD mark since 2016-2017.

### Data and Methodology

The data used for the purpose of our research was administrative data provided by the Customs Department of Pakistan. The data contained the record of all imports cleared from Punjab for the Year 2011-2021. The dataset had variables on HSCode, Port of Clearance, Value of Imports, Duties and Taxes.

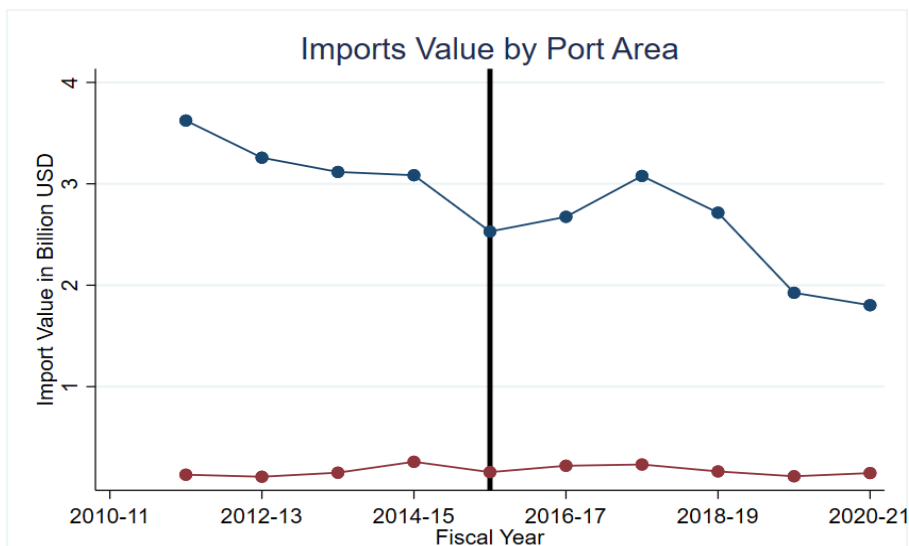


Figure 3 shows the imposition of Cess in 2016 (vertical line). The Islamabad Dry Port remains exempt from Cess as it is not a part of Punjab. The import value for Islamabad has shown to be stable while the imports in the dry ports of Punjab have been decreasing before the imposition of Cess.

For our analysis we divided our data into two groups - treatment and control group. The treatment group consisted of the imports that were cleared from any dry port in Punjab. And the control group consisted of imports cleared from the dry ports in Islamabad since cess was only applicable to Punjab's dry ports. Our model calculates the change in import value for both the groups before and after the implementation of PIDC Act.

### FINDINGS: ANALYSING THE IMPACT OF CESS ON ECONOMIC ACTIVITY IN DRY PORTS OF PUNJAB

Our model predicts the value of imports in the dry ports of Punjab had Cess not been introduced. This effect is displayed in terms of annual forgone imports due to the impact of Cess. The results show that Cess has had a sizeable impact on reducing the value of imports in the dry ports of Punjab.

On average, Foregone imports on account of the Dry Ports of Punjab amount to **~560 million USD** per year.

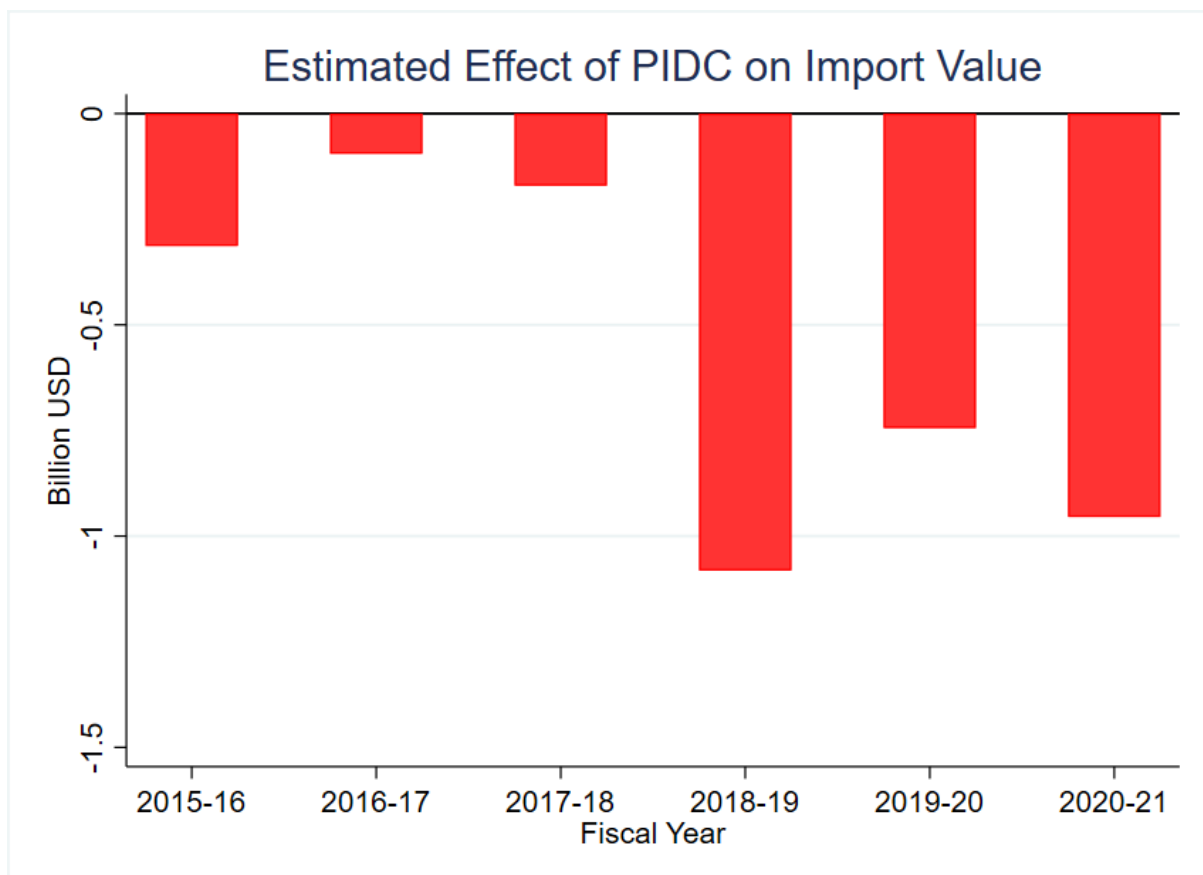


Figure 4 shows the main regression results on the annual impact of Cess in terms of imports forgone.

Since activity in the dry ports is also measured by the number of federal levies in the form of sales taxes and custom duties on imports, a reduction in the total imports also negatively impacts the collection of these taxes. The customs duties and sales tax are shown in actual and potential terms, where the potential collection is our estimation if Cess had not been levied in Punjab.

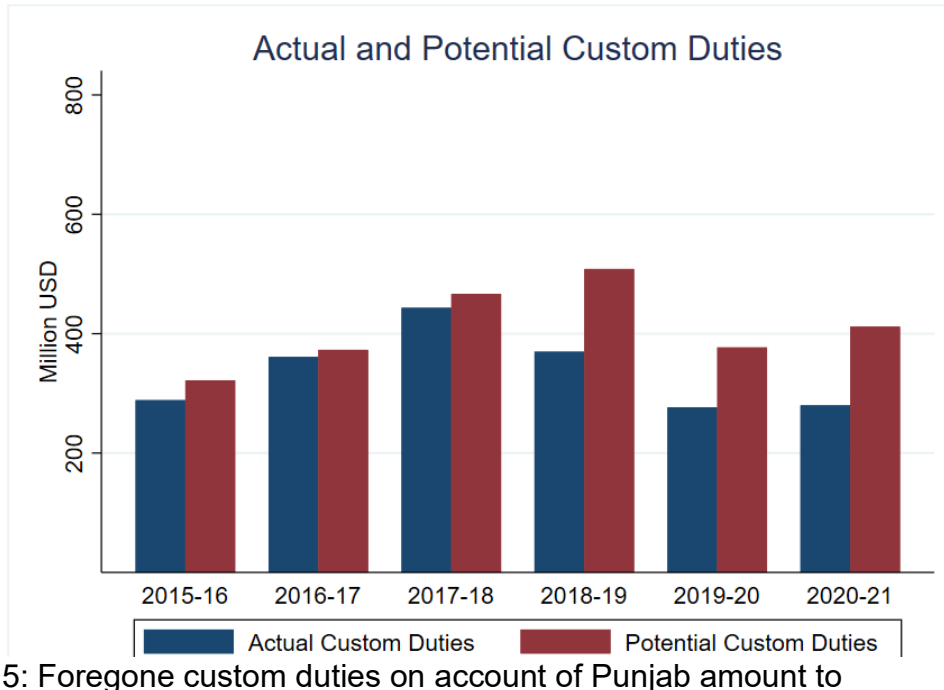


Figure 5: Foregone custom duties on account of Punjab amount to average of **~73 million USD** per year.

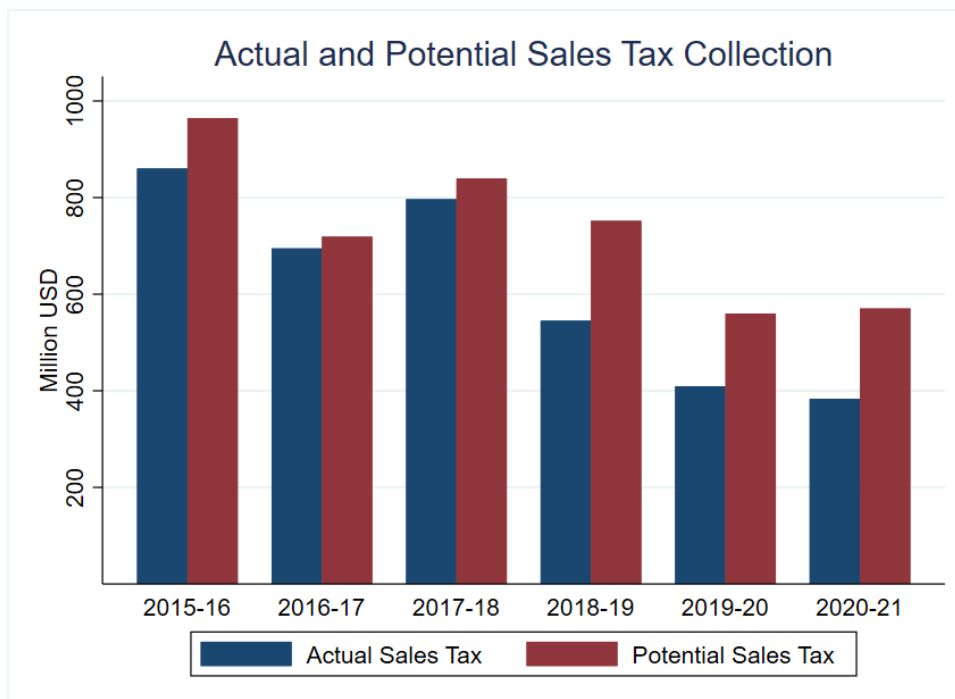


Figure 6 Foregone sales taxes on account of Punjab amount to average of **~120 million USD** per year.

## **FINDINGS: ECONOMIC IMPACT OF CESS - FOCUS GROUP DISCUSSIONS**

**To supplement our econometric analysis, we also conducted focus groups with the two primary stakeholders in this research area: the business community (importers of goods) and clearing agents (responsible for clearing imports through Customs Department at ports). These discussions gave us insight into how Cess has affected business activity, along with other constraints to economic activity in Punjab. The results of our analysis were validated by the stakeholders' assessment of the impact of Cess in Punjab.**

### **Perception of PIDC**

- Stakeholder consultations have shown that Cess is perceived by the business community as being 'unfair' or 'unnecessary' while other duties and taxes did not generate similar sentiments. They were completely acceptable to the involved stakeholders.
- One of the reasons for this skewed perception stems from the issue of double taxation i.e., having to pay Cess both in Punjab and Sindh if the cargo is to be cleared in Punjab. This was repeatedly cited by importers, business owners and clearing agents as the most important reason why PIDC should be revoked in Punjab.
- The business community and clearing agents also highlighted that the justification of PIDC presented to them is not logical. Majority of the infrastructure used for goods and their transportation does not belong to the Government of Punjab. Mostly, national highways or railways are used for consignments entering dry ports in Punjab. These belong to federal entities and have their own tolls or taxes. The dry ports are also not owned by the Government of Punjab, e.g., some are run by Railway or NLC.

### **Diversion of Revenue & Activity**

- The imposition of PIDC has resulted in the diversion of imports from the dry ports of Punjab to Sindh. This has two main consequences:
- The income and employment generated from dry ports and allied services has reduced in Punjab. Service charges and other allied fees collected through clearing consignments have decreased, which will further harm the infrastructure of these dry ports.
- The revenue collected through taxes, duties and custom fees have now diverted to Sindh.

### **Increasing costs**

- One of the major issues arising due to PIDC is that cess on imports has to be paid twice in the case of bonded cargo. It creates an additional tax burden

(double taxation) as it is being paid both to the Punjab Government and the Sindh Government.

- Cess has disproportionately affected small businesses that operate on lesser margins as they cannot absorb the increase in the cost due to PIDC. It also disproportionately impacted importers/businesses that do not have the option of clearing their imports in Sindh and must get them cleared in Punjab. This may be due to exemptions applicable only on certain ports or Importers that have contracts with private party warehouses for ex bound import shipments also have to get them cleared in Punjab.
- COVID-19 has already disrupted global supply chains and caused inflationary pressure on shipping and freight prices across the world. The increase in regulatory cost due to cess adds to this burden, having a detrimental effect on economic activity in the province.
- PIDC is increasing the cost of doing business in Punjab, especially for promoting industrialization. Many imports are used as inputs for industries and the additional cost may adversely affect the process of industrialization.

### **Dry Port Infrastructure**

- There have been very few infrastructural developments in Punjab since the number of imports has significantly decreased in the recent years. This has led to minimal activity on dry ports as machinery, labour, railways, etc. are not being utilized to their full capacity. The reduction in number of consignments being cleared has reduced the total service charges collected at these dry ports as well.
- The average time for clearance before cess was around 5 days in Punjab. However, due to the recent damage to the infrastructure in Punjab the average time has increased to about 10-15 days.
- There are different kinds of labour available on the dry ports for handling, shipping, transport and administrative tasks. The reduction in economic activity and allied services has also affected these people. Most of the laborers have shifted from Punjab to Sindh and some have also lost their jobs.

### **Clearing Agents**

- Custom clearing agents have also shifted their staff from Punjab to Sindh since their clientele was being damaged due to the issue of double taxation. These agents compete on the cost of service which increases in Punjab due to PIDC. As a result, these agents recommend clients to clear shipments in Sindh. People who are still operating in Punjab are mainly dealing with air consignments now since their port of entry is also Punjab.

### **Freight Costs**

- The rent for bonded cargo is 38% more than non-bonded cargo which is an added burden on the importers if they get their shipments cleared from Punjab. The unloading and loading costs are also increased for bonded goods

as the process must be repeated. However, the time taken for both forms of transportation is the same on average. This additional cost is also a major reason for imports preferentially cleared in Sindh over Punjab.

- Shipping companies charge rent for containers; however, they give incentives to the clients by not charging rent for the first 14 days (may vary slightly) and then a fee ranging from \$100-150 is charged for every additional day it is in the possession of a client. The delays in clearance times in Punjab might create additional financial burden for importers in the form of rent charges on shipping containers.

## FINDINGS: SURVEY TO UNDERSTAND OTHER CONSTRAINTS TO ECONOMIC ACTIVITY IN THE PORTS OF PUNJAB

A survey was conducted to understand the key issues faced by importers in Punjab. This survey was disseminated online. About ~60% of the businesses located in Punjab get their imports cleared from outside Punjab, citing speed money and extra costs (monetary & time related) as the major issues. These results highlighted how businesses prefer to use ports in Karachi or outside Punjab to clear their consignments, even if the goods are being used in Punjab. This shows a clear need to improve the service and infrastructure in Punjab. Cess was not the biggest constraint in using the port infrastructure of Punjab and removing it would not solve the issue of decreasing activity in ports.

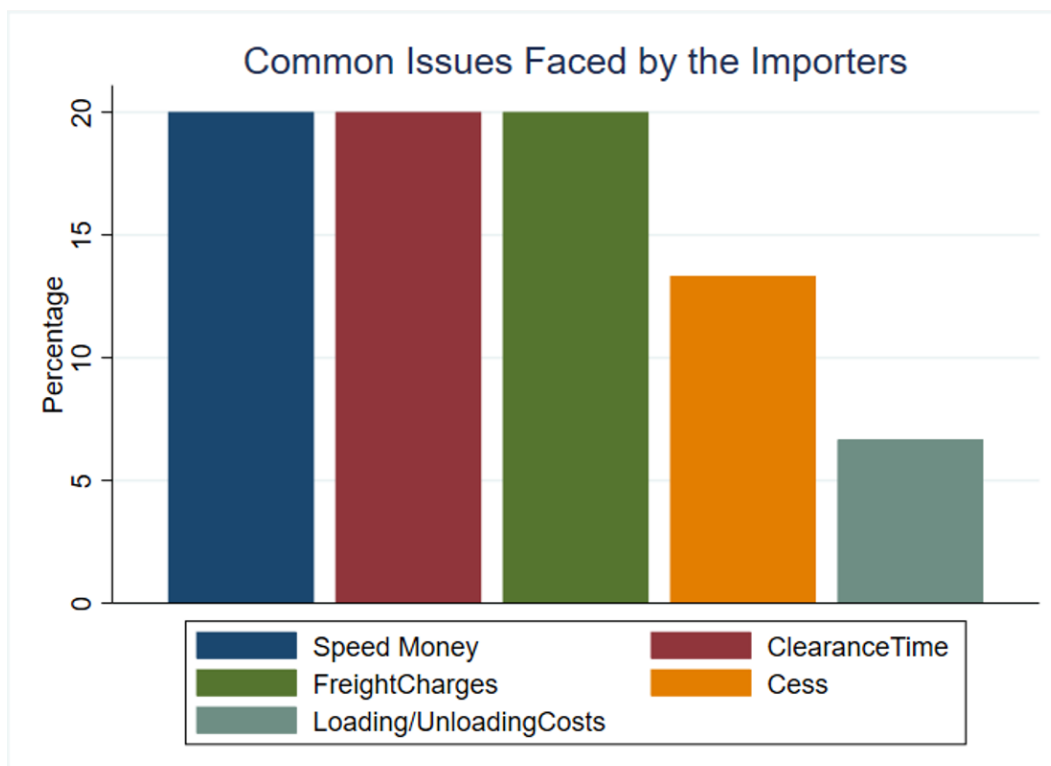


Figure 7: Measuring the frequency of issues faced by importers in Punjab.

## FINDINGS: DELVING FURTHER INTO ADDITIONAL COSTS/CONSTRAINTS TO ECONOMIC ACTIVITY IN THE DRY PORTS OF PUNJAB

To further understand the activity of dry ports in Punjab, we conducted additional research into the process of clearance for goods. In our focus groups and survey, participants alluded to the several other monetary factors besides Cess that made it inconvenient and costly for businesses to get their imports cleared from Punjab. For a business operating in Punjab, there are two options for clearing imported goods arriving from a seaport. It is important to understand that majority of the imports are handled by seaports in Karachi as trade by land is very limited. Airports are used to bring in cargo directly to Punjab, but it serves only as a small percentage of the total imports of Pakistan.

1. The Shipment is cleared in Karachi and the ownership of the goods is handed over to the business. The business may then transport the shipment to any location in Punjab (**this is non-bonded cargo**). Only the Cess and duties for Sindh have to be paid, along with the transportation cost.
2. The other scenario is getting the shipment labelled as bonded cargo in Karachi and then using custom licensed bonded transporters to bring the shipment to the ports of Punjab. The shipment is then cleared in Punjab and ownership is handed over to the business. This method has several additional costs compared to **Option 1**
  - a. According to focus groups, bonded transporters charge on average PKR 40,000 (assuming a container of 20ft) extra as compared to non-bonded transporters.
  - b. The importers have to pay Cess in Sindh (1.25%) and then also pay Cess in Punjab (0.9%)
  - c. The Importer has to pay terminal handling charges to port operators which are PKR 5000 (on average) in Karachi and then PKR 13000 in Lahore.
  - d. The importer has to pay the loading and unloading charges at both the Karachi and Punjab ports if the consignment is cleared in Punjab, thereby incurring twice the expenditure.
  - e. For bonded cargo, the importer has to pay placement charges amounting to PKR 18,000 to shipping companies if they want to return the shipping container via Punjab. For containers sent back to Karachi, there is a risk that the free detention period (usually 5-14 days) may end and cost the importer \$100-150 for each extra day the container is not returned to the shipping company.

- f. The importer also faces warehousing costs at both Karachi and Punjab ports for bonded consignments. This creates an additional burden of PKR 10-15,000

**To summarize, A 20 feet bonded container being cleared in Punjab will cost the importer an estimated minimum of PKR 86,000 + 0.9% Cess EXTRA as compared to clearance in Karachi and transporting the cargo via private carriers.**

## POLICY IMPLICATIONS

- Based on the results of our research, it is evident that Cess has had a negative impact on the dry ports of Punjab. It has resulted in reduced economic activity at the dry ports; potential imports, sales tax and custom duties have been forgone. Less traffic at the dry ports also corresponds to less revenue collected which could have a further impact on the infrastructure. Moreover, it has raised the cost of business for bonded consignments. Our policy recommendation would be to remove the Punjab Infrastructure Development Cess.
- To revive the dry ports and associated economic activity, the removal of Cess shall not be enough on its own. Our research has shown that businesses also face other difficulties in getting imports cleared from Punjab. Factors such as speed money, freight charges, transportation charges all contribute to the low usage of dry ports in Punjab. To understand the firm's decision, these factors must be added to Cess to understand the overall cost structure. The cost of clearing a consignment in Punjab needs to be brought closer to the cost in Karachi to nudge firms in using the dry ports of Punjab. One way to do this is to reduce bonded freight charges to compete with the private transporters.
- The government may also investigate the privatization of these ports to improve efficiency and service quality. Companies with expertise in logistics and handling can bring down both the cost and time taken for the handling of consignments in Punjab.
- Our focus group discussions with associated stakeholders have hinted at the loss of employment opportunities in these dry ports. Further research should focus on how allied port services have been affected in terms of income and jobs due to a reduction in economic activity in the dry ports of Punjab.



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