VAT Tax Expenditure and Compliance Gap in Iran:
A Regional Analysis over 1388-1394

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Abstract

Since its inception at the mid- 1387, Value added tax has performed as a growing and stable source of revenue for government. Nonetheless, the size of missing VAT income because of non-compliance with law (compliance gap) as well as ignoring income to achieve distributional targets or to facilitate implementation (policy gap) is a question. In other word, in this paper we are going to give an estimate of VAT gap and understand its evolution over time. To estimate VAT gap, in this paper we employ a macroeconomic approach rather than micro economic approach. Macroeconomic approach could be based on production or consumption. Production method which is adopted in this paper is based on input - output table. Relying on input - output table, the value of sales and buys can be estimated and according to definition by subtracting latter from former the value added can be computed. Based on computed value added and imposing standard tax rates and actual policy rates, potential and legal tax revenue can be computed. The difference between potential and legal tax revenue is called policy gap and if government's actual tax revenue become subtracted from legal tax revenue, the result will be compliance gap. In this paper, we estimated 31 regional input-output tables during 1388-1394 and computed the VAT gap. Results indicate a volatile but decreasing VAT gap, so as compliance gap has decreased from 68% to 53% and policy gap from 39.3% to 32.9%. Furthermore, Tehran, Khorasan-e Razavi, Bushehr, Fars, Isfahan and Azarbaijan-e Sharghi are provinces with highest share of compliance gaps while Ilam, Khorasan-e shomali and Jonoobi and Kohgiloye va Boyer Ahmad are provinces with the lowest share of compliance gap.

Keyword: Value Added Tax, Compliance Gap, Policy Gap, Regional Input-Output Table.

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1. Introduction

There are two tax gap definitions. First, the difference between the theoretical revenue and the actual revenue collected (Hutton, 2017؛ Tax Gap Project Group (European Commission), 2016). Second, tax gap represents a difference between potential (legal) revenue and the actual revenue collected (Novysedlak & Palkovicova, 2012; Raczkowski, 2015). In this paper the first definition is employed to study the policy and compliance gaps for Iran provinces.

There are two basic approaches to calculate the tax gap: one is based on macroeconomic data (top- down) while the other uses microeconomic data (bottom-up). Macroeconomic estimations are calculated in two ways. First the input- output tables (Novysedlak & Palkovicova, 2012؛Jenkinsetall, 2000؛ Mohajeri & Sobhanian, 2018؛ Mirjalili et all, 2019) and second on nominal GDP net of the items not subject to VAT (the consumption method), (Canıkalp et all, 2016؛ Alm, 2012؛ Bovard & Nekoamal Kermani, 2017؛ Izadkhasti & Arabmazar.2018). In this paper the input-output method is used.

VAT gaps in Iran provinces are expectedley different because of the different shares of economic sectors and activities in each region. This idea is in line with the findings of recent studies such as Ibragimova (2016) and Carfora et al. (2018).

To the best of our knpwledge other relevant studies has not estimated VAT compliance and policy gap in regional level by employing regional input-output tables. This gap is going to be addressed in this paper.

2. Methodology

In this study methods of Hutton (2017) and the input-output tables are combined and employed to estimate VAT gap in following steps. First, potential revenue of VAT gap is estimated by computing the VAT of sales minus VAT of buys at standard rate, taking into account that tax rate on export is zero and VAT of import is charged at the customs. Then the legal tax revenue is computed by imposing legal rates of different goods. The difference between potential VAT revenue and legal one is considered as policy gap. Finally, actual VAT revenue compared with legal revenue to compute compliance gap.

3. Results

Results of this study shows that total potential and legal VAT revenue of the country have been increased from 61.2 to 741.4 and from 37.1 to 497.1 thousand billion Rials, over 2009-2015, respectively. In Figure 1 total compliance and policy gaps of the country over 2009-2015 are shown.
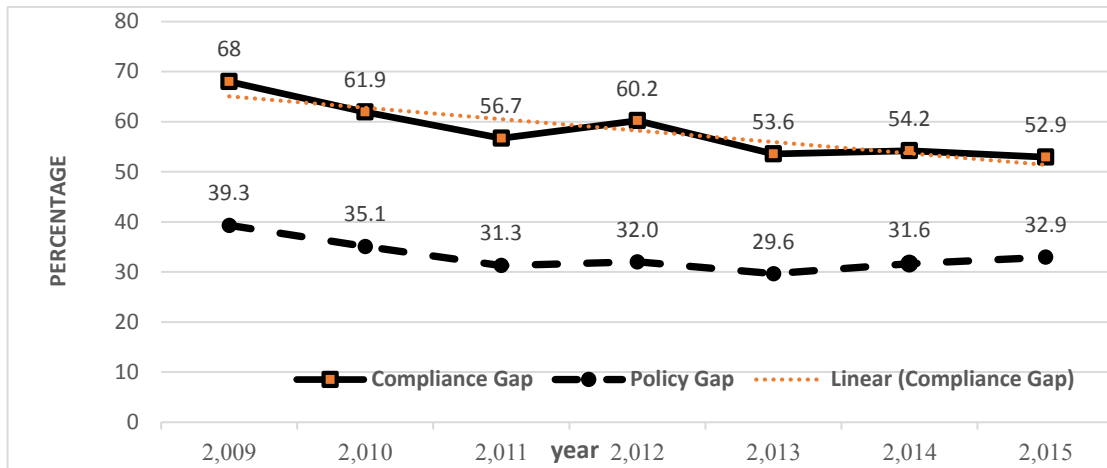
Figure 1. The total compliance gap and the policy gap years 2009-2015.

Regional results also indicate a volatile compliance gap over 2009-2015 which is reflected in Figure 2.
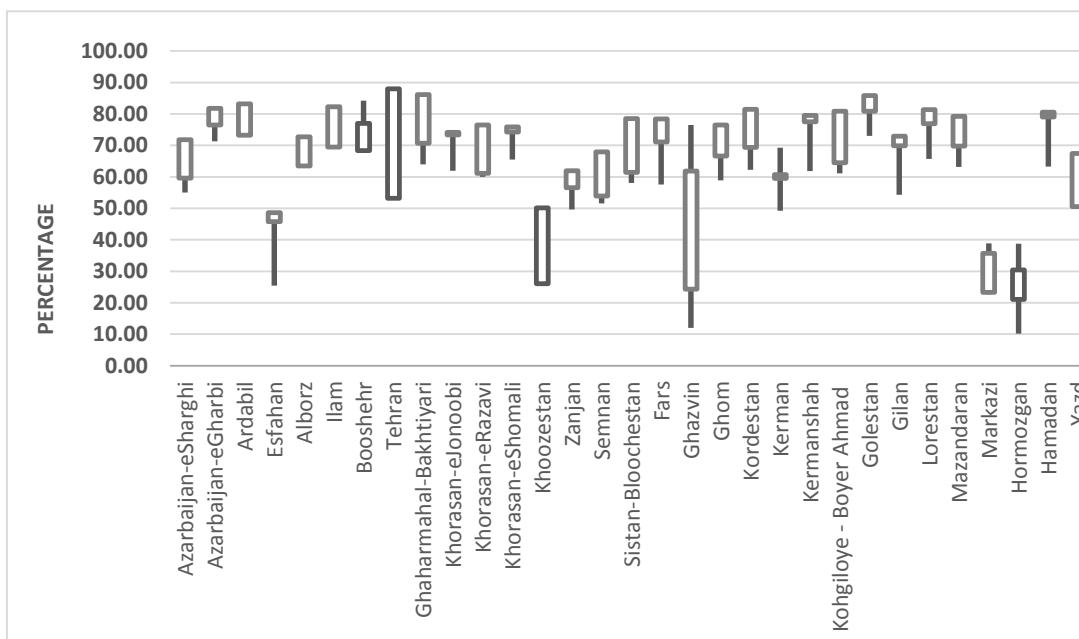

Figure 2. The regional distribution of compliance gap, 2009-2015.

Over 2009-2015, the regional compliance gap was more than 60% on average relative to the legal VAT revenue for each region. Figure 3 shows the nominal values of compliance gap and the ratio of the gap for the country proviences in 2015. Figure 3 indicates that the value and ratio of compliance gap in Khorasan Razavi, Fars, Bushehr, Isfahan, Alborz, East Azerbaijan and Mazandaran provinces are higher than the country's average. Therefore, it is expected that by

increasing audits for those provinces, compliance gap decreases significantly. It should be noted that Tehran province, because of its extraordinary size, is excluded from Figure 3.
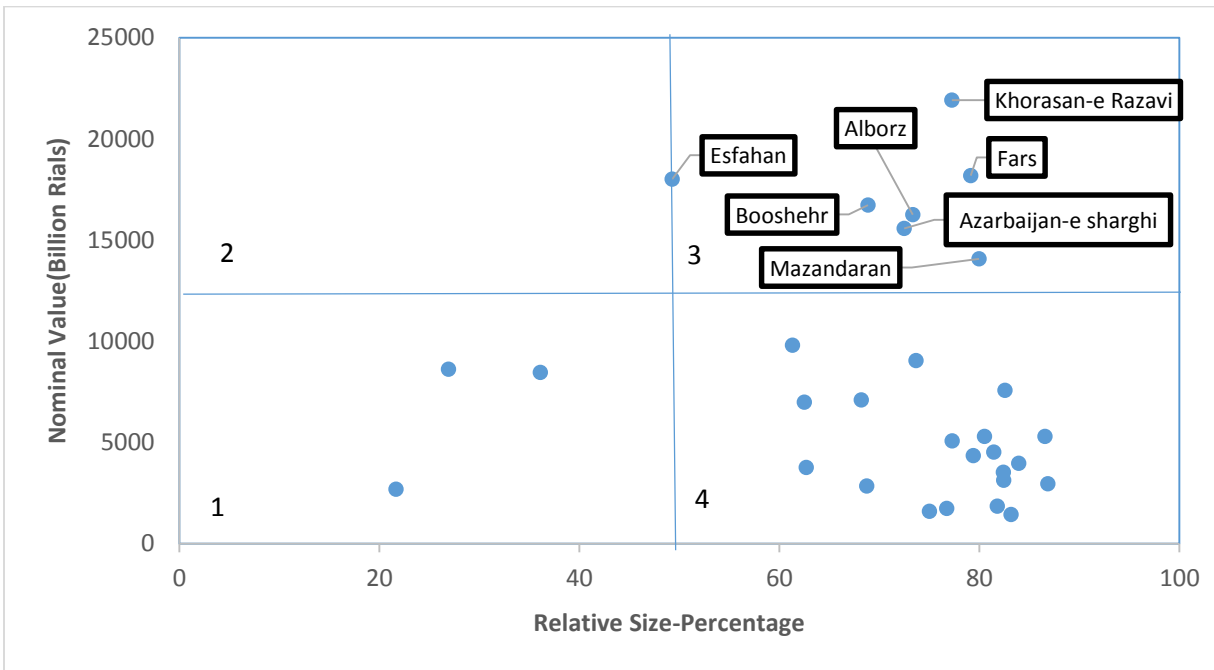

Figure 3. Reginal value and ratio of compliance gap, 2015

Figure 4 demonstrates the regional policy gap and the contribution of each region in total policy gap for the country in 2015. The provinces of Jonoobi and Shomali Khorasans, Ilam and Lorestan have the highest policy gap relative to VAT potential capacity.
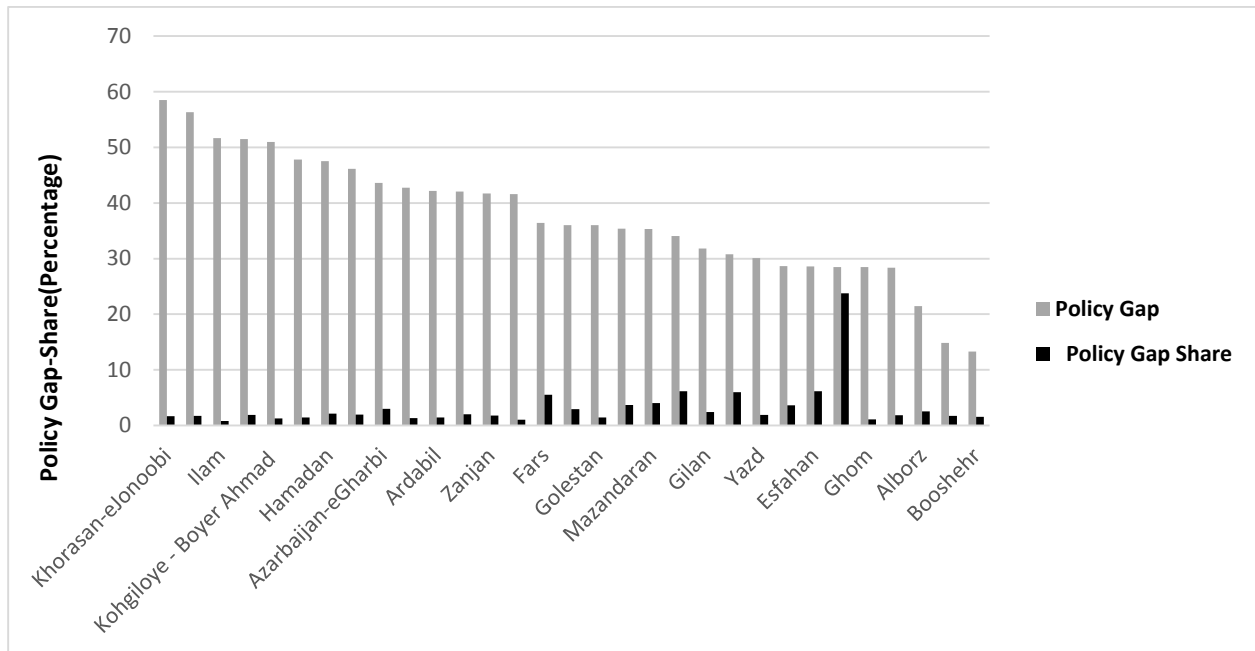
Figure 4. Regional policy gap and the share of each region in the total policy gap 2015

5. Conclusion

In this paper for estimating the VAT gap, we used regional input-output tables. The potential and legal revenues of VAT (i.e. the deduction of output tax from the tax paid on inputs) calculated in 35 sections.

The results indicate that the compliance gap based on legal VAT was decreased from 68% in 2009 to 53% in 2015. The policy gap based on potential VAT revenue also decreased from 39.3% to 32.9% in the same period. The average compliance gap based on potential VAT revenue was estimated 38% in average.

In addition, the share of compliance gap relative to the legal VAT is more than 60% and the value of tax evasion is less than 10 thousand billion Rials for the most provinces. Tehran, Khorasan Razavi, Fars, Alborz and Isfahan provinces had the highest average and Ilam, South and North Khorasan, Kohgiluyeh and Boyer-Ahmad provinces had the lowest share of the VAT compliance gap. Also, Ilam, Lorestan and South Khorasan provinces have the highest policy gap relative to the VAT capacity.

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