

Regional Financial Independence Inequality Analysis Using Williamson Index: Comparison between Regencies in West Sumatera – Indonesia

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Abstract

Regional autonomy shows the ability of local governments to finance their own government activities which also illustrates the level of community participation in regional development, the more independent a region is, the higher the community participation in paying taxes and levies, which is a major component of Local Own-source Revenue. This study aims to evaluate, describe and map the level of inequality in regional financial independence using the Williamson Index among regencies in West Sumatra Province for the 2015-2017 period. This study consisted of primary and secondary data. Primary data were obtained by conducting interviews with respondents and secondary data were obtained from the Central Statistics Agency and the Regional Finance Agency of the Province of West Sumatra. The data analysis method is to use the financial autonomy ratio analysis by looking at the comparison of the realization of Local Own-source Revenue to central government transfers, provincial transfers, and regional loans in 2015-2017, then the results is analyze by using the Williamson Index. The results of the study 1)The ratio of regional financial independence between districts in West Sumatra Province is categorized as "Very Low" with an average of 9.24%. 2) Regional financial independence between regencies in West Sumatra has not been evenly distributed or is categorized as Moderate. It is expected that all regency governments in West Sumatera can optimize Local Own-source Revenue, so that in the future can be independent by making Local Own-source Revenue as the main income of a region.

Keywords: Williamson Index, Local Revenue, Inequality

Introduction

Regional autonomy is a concrete manifestation of the implementation of decentralization in Indonesia, in accordance with Law Number 32 of 2004 and then revised to Act Number 23 of 2014. The process of decentralization of the central government towards regional governments helps the relevant government in accordance with the potential of the region. In the assistance of regional autonomy by the central government to the regional government is in order to assist the central government in providing services to the community, implementing development programs, as well as collecting resources from the region's original financial resources.

In Law Number 33 Year 2004, the source of regional revenue is Local Own-source Revenue (LOSR), Balance-Funds and other legal income. Based on research results Riyanto and Hermanto (2005) cite that the source of regional revenue is still dominant from the balancing fund. On average, the contribution of balancing funds to total regional revenue reached 80%. Thus, regional financing within the framework of fiscal decentralization is still very dependent on funds from the central government, although efforts to increase LOSR have been made, this has increased from increasing LOSR from year to year.

As one of the provinces in Indonesia, every regency in West Sumatra wants regional financial independence to improve the welfare and prosperity of the region. But in reality, the implementation of fiscal decentralization that has been running for more than 17 years, from 2001 to 2018, still experiences a classic case, even though the implementation of fiscal decentralization has significantly grown the regional economy of each regency, but from the other side of inequality that occurs between districts / cities also increased.

According to Putong (2010) one way to measure inequality in regional financial independence is to use the Williamson Index analysis. In general, the Williamson Index is used in economics to assess inequality of per capita income between regions. Because this study aims to look at the imbalance in regional financial independence, the income per capita is replaced by the independence ratio of a region. Thus the higher the value of the Williamson Index, the higher the degree of inequality in financial independence, and vice versa.

The phenomenon that occurs is that the high level of dependency of local governments in Indonesia on equalization funds from the central government, where more than 90% of local governments depend 50% more on balancing funds that make the central government experience financial distress (heavy financial pressure) due to difficulties in bearing the financial burden which is one of the causes is the inability of local governments to optimize LOSR as the main source of regional revenue.

Based on the above phenomena, further analysis is needed. This research was conducted with the aim to find out the trend of regional financial independence and how big is the imbalance of regional financial independence between districts and cities in West Sumatra in 2014-2017.

Results and Discussion

A. Regional Financial Independence Ratio

Table 1. Ratio of Regional Financial Independence in the Province of West Sumatra.

Number	District	Independence Ratio(%)				Average (%)	Categorize
		2014	2015	2016	2017		
1	Agam District	7.91	7.99	8.78	13.41	9.52	Very Low
2	Dharmas Raya District	8.86	8.20	7.62	11.64	9.08	Very Low
3	Kepulauan Mentawai District	5.72	6.20	5.11	8.28	6.33	Very Low
4	Lima Puluh Kota District	5.76	6.12	6.74	10.79	7.35	Very Low
5	Padang Pariaman District	6.52	6.88	6.42	12.13	7.99	Very Low
6	Pasaman District	10.27	10.39	10.63	17.61	12.23	Very Low
7	Pasaman Barat District	8.98	8.08	9.81	17.51	11.10	Very Low
8	Pesisir Selatan District	8.43	8.83	8.54	13.49	9.82	Very Low
9	Sawahlunto Sijunjung District	8.16	9.21	10.02	12.72	10.03	Very Low
10	Solok District	5.74	5.63	5.78	11.09	7.06	Very Low
11	Solok Selatan District	5.76	6.44	8.24	10.55	7.75	Very Low
12	Tanah Datar District	11.49	11.46	10.98	16.60	12.63	Very Low
	Maximim	11.49	11.46	10.98	17.61	12.63	
	Minimu	5.72	5.63	5.11	8.28	7.06	
	Average	7.80	7.95	8.22	12.98	9.24	Very Low

Source: BPS 2019 (data processed)

From the calculation of the regional financial independence ratio, it can be seen that the highest average regional financial independence ratio from 2014-2017 was obtained by Tanah Datar districts by 12.63% and the lowest was obtained by the Mentawai Islands district with a value of 6.33%. Although Tanah Data Regency is an area that has the highest independence ratio, but this value is still in the category of "Very Low". In addition, if seen from the average value of inter-regency financial independence ratio between 2014-2017 of 9.24% with the category "Very Low".

B. Analysis with the Williamson Index.

Table 2. Complete Measure by Williamson Index

No	Regencies	Independence Ratio	Total Population	Independence Ratio Percapita	y_i	$\frac{y_i - Y_i}{Y_i}$	$\left[\frac{y_i - Y_i}{Y_i}\right]^2$	$\frac{P_i}{P_n}$	$\left[\frac{y_i - Y_i}{Y_i}\right]^2 \frac{P_i}{P_n}$	
1	Agam	13.41	484.288	0.00002768	0.00002768	(0.406773)	0.1655	0.125	0.02072	
2	Dharmas Raya	11.64	235.476	0.00004943	0.00004943	0.059228	0.0035	0.061	0.00021	
3	Kep. Mentawai	8.28	88.692	0.00009333	0.00009333	1.000163	1.0003	0.023	0.02294	
4	Lima Puluh Kota	10.79	376.072	0.00002868	0.00002868	(0.385275)	0.1484	0.097	0.01444	
5	Padang Pariaman	12.13	411.003	0.00002951	0.00002951	(0.367510)	0.1351	0.106	0.01436	
6	Pasaman	17.61	275.728	0.00006387	0.00006387	0.368889	0.1361	0.071	0.00970	
7	Pasaman Barat	17.51	427.295	0.00004098	0.00004098	(0.121850)	0.0148	0.111	0.00164	
8	Pesisir Selatan	13.49	457.283	0.00002951	0.00002951	(0.367551)	0.1351	0.118	0.01598	
9	Sawahlunto	12.72	230.104	0.00005527	0.00005527	0.184421	0.0340	0.060	0.00202	
10	Solok	11.09	368.691	0.00003009	0.00003009	(0.355246)	0.1262	0.095	0.01203	
11	Solok Selatan	10.55	165.603	0.00006370	0.00006370	0.365218	0.1334	0.043	0.00571	
12	Tanah Datar	16.60	346.578	0.00004789	0.00004789	0.026286	0.0007	0.090	0.00006	
			3.866.813	0.00004666						0.11982

Source: Central Statistik Agency, 2019 (data processed)

Table 3. Inequality of Regional Financial Independence between Regencies in West Sumatra

No.	Year	Index Williamson	Interpretation
1	2014	0.41	Moderatly Distubute
2	2015	0.43	Moderatly Distubute
3	2016	0.40	Moderatly Distubute
4	2017	0,35	Moderatly Distubute
Average		0,40	Moderatly Distubute

Source: Central Statistik Agency, 2019 (data processed)

In 2014, the value of regional financial independence was based on the results of the Williamson Index analysis between regencies in West Sumatra, which was 0.41, which showed that the level of regional financial independence between regencies with a moderate level. This value increased in 2015 amounted to 0.43 and continues to decline where in 2016 it was valued at 0.40 and 2017 valued at 0.35 with an average from 2014-2017 worth 0.40 in the Moderate Even category.

C. Analysis of Regional Financial Independence Ratio

1. Inter-Regency Regional Financial Independence Ratio in West Sumatra Province.

The calculation of the regional financial independence ratio is obtained by comparing the Total District LOSR compared to the regional income sourced from in the form of a central government balance fund, regional government and regional loans. Regional financial independence becomes important for the region related to the ability of regional finances for the economic growth of the region itself. The large contribution of government spending to economic growth in the region is an opportunity that is used optimally to drive the economy.

Regional financial independence can be categorized as high, medium and low, one of which is due to the high or low ratio of regional financial independence. The results of calculations in table 3.1, the results of the study show that from 2014-2017 the ratio of regional financial independence between districts in West Sumatra has increased where the average regional financial independence in 2014 was 7.80%, then increased in 2015 to 7.95% and 8.22% in 2016 and 12.98% in 2017. showed that the ratio of regional financial independence between regencies in West Sumatra Province was categorized as "Very Low" with an average

of 9.24%. For more details on how the ratio of regional financial independence in all districts in West Sumatra Province, the following is presented in figure 1;

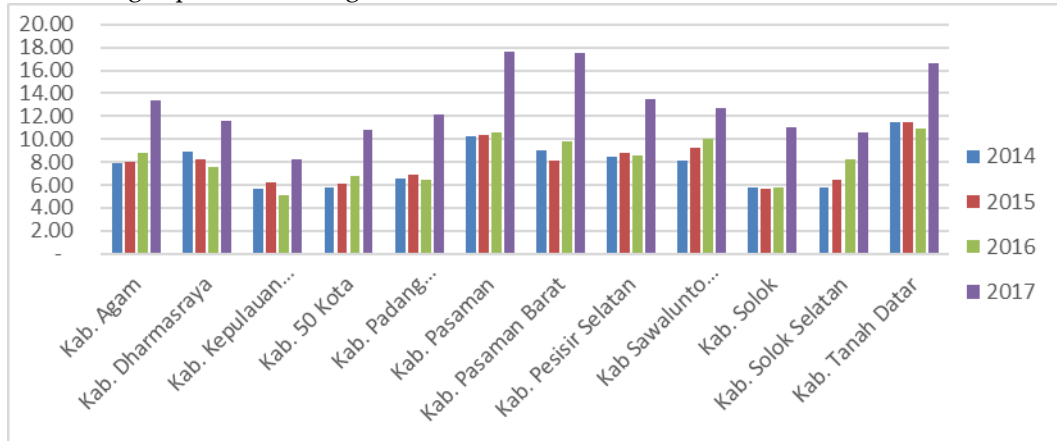


Figure 1. Ratio of regional financial independence in all districts in West Sumatra Province
 Source: Central Statistik Agency, 2019 (data processed)

From the graph above, the highest regional financial independence ratio between regencies from 2014-2017 was obtained by Tanah Datar District, while the lowest regional tax ratio was obtained by the Mentawai Islands Regency.

Looking at the results of the table above, Tanah Datar District as an area that has the highest regional financial independence ratio with an average independence ratio from 2014-2017 of 12.63%. Give an indication that the area has been able to optimize its regional potential compared to other districts in West Sumatra even though it is still in the category of "Very Low"

Tanah Datar District is one district that is growing rapidly compared to other districts. Tanah Datar Districts are the Seven Best Regencies in Indonesia out of 400 districts. This award was given in 2003 by the International Partnership Institution and the British Embassy. The Indonesian Institute of Sciences (LIPI) has named Tanah Datar District as one of the four most outstanding regions and has succeeded in implementing regional autonomy compared to other regions in West Sumatra. Tanah Datar Regency is an agrarian area, more than 70% of the population works in the agricultural sector, both agricultural food crops, plantations, fisheries, and livestock. Likewise with community businesses in other sectors also based on agriculture such as tourism and small industry or agro industry. Tanah Datar people are also known to be fond of saving with a total community savings fund of Rp223 billion in 2004.

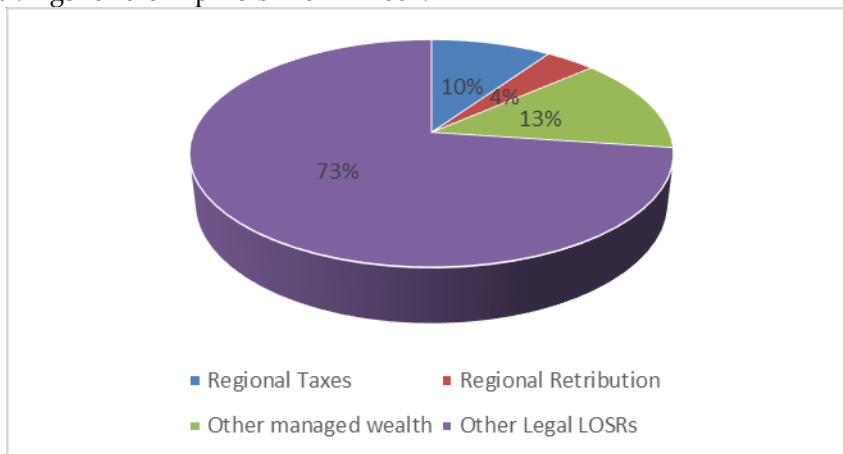


Figure 2. Average Local Own-Source Revenue of Tanah Datar District
 Source: Central Statistik Agency, 2019 (data processed)

Figure 2 above, of the four revenues, the largest contributor to regional income from revenues from other legal LOSRs was 72.85%. 9.56% tax revenue and 3.97% regional retribution, and other managed wealth by the average annual income reached 13.60% of the total LOSR. This certainly gives a signal to the government of Tanah Datar, that there are still many of the potential potential of Original Own-source Revenue that has not been optimally explored, such as regional tax revenue and regional retribution.

Although the Tanah Datar district has succeeded in increasing its original regional income from year to year, but when viewed from the goal of regional autonomy, the Tanah Datar district has not been able to realize true independence. This can be seen from the source of regional income. As a region that receives the highest financial independence ratio between regencies in West Sumatra, Tanah Datar regency has not been able to make LOSR as the main source of regional income, this can be seen from the high contribution of transfer revenue from the provincial government and central compared to regional own-source revenues. Where in 2014 the Tanah Datar district received LOSR of Rp. 99.694 trillion and the contribution of provincial and central government transfer funds worth Rp. 867.617 trillion, in 2015 the LOSR of Tanah Datar increased by Rp.112,072 and the contribution of provincial and central government transfer funds to Rp.977.889 trillion. In 2016 the LOSR of the Tanah Datar increased compared to the previous year amounting to Rp.117,484 and the contribution of transfer funds to Rp.1,070,081 trillion, and in 2017 the LOSR of the Tanah Datar increased again to Rp.172,821 trillion by obtaining transfer funds of Rp.1,041,225 trillion . This shows that on average each year 85% of the regency's Tanah Datar revenue is derived from transfer revenues from the provincial and central government, the remaining approximately 15% is derived from LOSR and regional loans.

The Mentawai Islands Regency is the largest regency area in West Sumatra Province, the geographical position of the Mentawai Islands off the coast of West Sumatra provides its own advantages for the development of extreme tourism. Its location overlooking the Indian Ocean grants the Mentawai Islands consistent waves throughout the year so as to make this area a tourist area that is in great demand by domestic and foreign tourists. However, the geographical situation of Mentawai Regency which is prone to earthquakes and tsunamis plus road access that is difficult to reach makes the Mentawai Islands Regency difficult to develop their regional potential. Moreover, the earthquake that occurred at the end of 2009 and then followed by an earthquake accompanied by the tsunami in late 2012 and 2013 greatly impacted the low development and growth of the Mentawai district. This also has an impact on regional financial independence which can be seen from 2014-2017, Mentawai district has the lowest regional financial independence ratio with an average of 6.33% with the category "Very Low"

The low financial independence of the Mentawai district is seen on average every year 89.32% of the regional income of the Mentawai district is obtained from transfer revenue from the provincial and central government, the remaining approximately 10.68% is obtained from LOSR and regional loans. The low acceptance of the Mentawai district's LOSR provides a signal that this region is still far from what regional autonomy aspires. This of course must be the duty of the government to continue to explore and optimize all original sources of income of the Mentawai district in order to increase revenue in the following year.

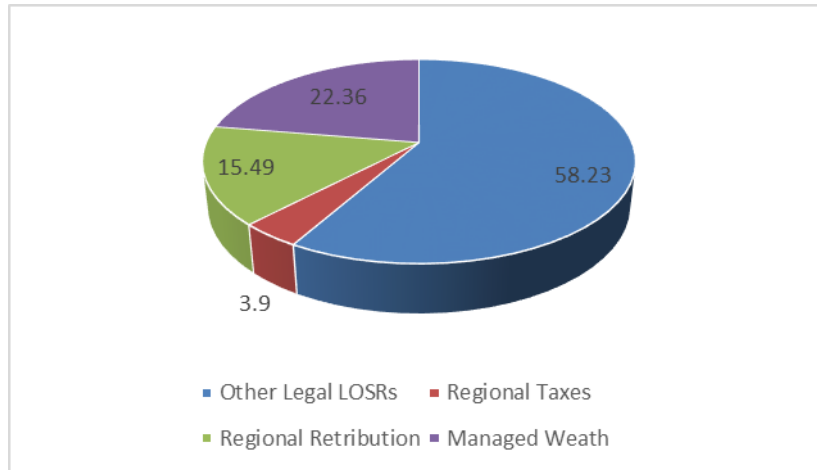


Figure 3. Average Local Own-source Revenue of Mentawai District

Source: Central Statistik Agency, 2019 (data processed)

Of the four revenues, the largest contributor to regional income from revenues from other legal LOSR was 58.23%, 3.9% tax revenue and 15.49% regional retribution, and the results of wealth management separated by the average annual income reached 22.36% of the total LOSR. This certainly gives a signal to the Mentawai district government, that there are still many of the potential of Original Own-source Revenue potentials that have not been optimally explored, such as local tax revenue and local user fees/retribution.

Conclusions

The results showed that, all districts in West Sumatra based of the ability of Local Own-Source Revenue is still not independent. This shows the large contribution of the central government in financing the regions. Of course this is still not in accordance with what is expected of regional autonomy.

The results of the analysis of regional financial independence ratio between regencies in West Sumatra shows that Tanah Datar regency received the highest financial independence ratio from 2014-2017 with an average of 12.63% but is still categorized as very low, while the lowest regional financial independence ratio is Mentawai. The Williamson index in analyzing financial independence inequalities between districts during the 2014-2017 period is in the moderate distributed category. This shows that the financial independence of the regions between regencies in West Sumatra has not been evenly distributed.

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