



2017 IAFICO Global Forum For Financial Consumers

# **The Willingness to Invest Under The New Compensation Limit of Investor Protection Fund in Capital Market: Evidence from Indonesia**

**Wardatul Adawiyah**

**Department of Management, Faculty of Economics and Business  
Universitas Indonesia**

# Background



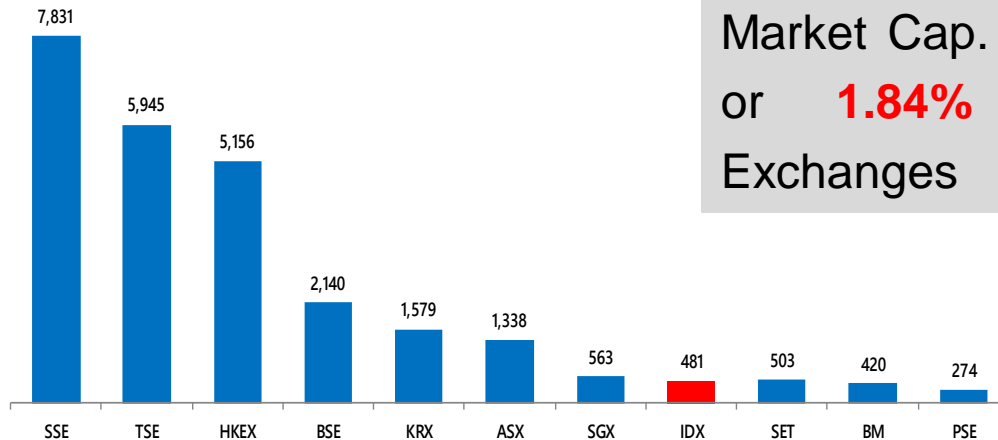
Capital market plays an important role in economic growth

Enhance the function of financial intermediaries between excess and demand of fund apart from banking industry

Participants in capital market are still low

# Background

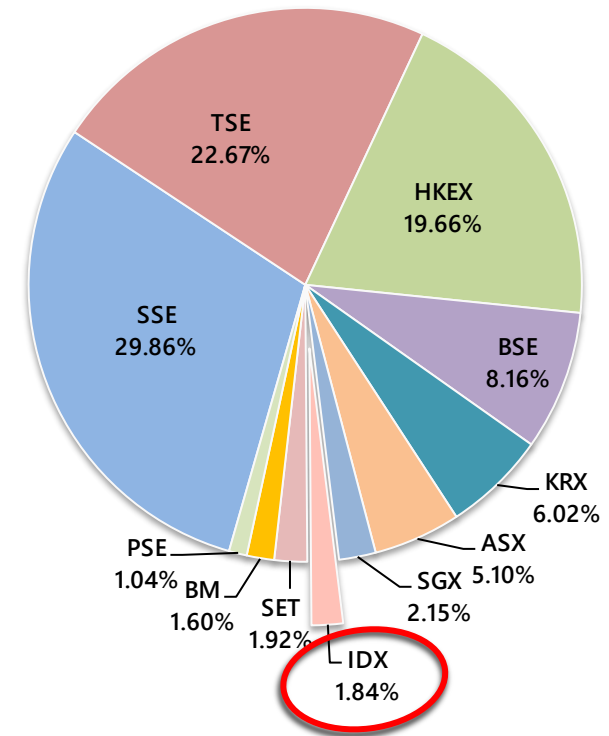
12 October 2017 (Billion USD)



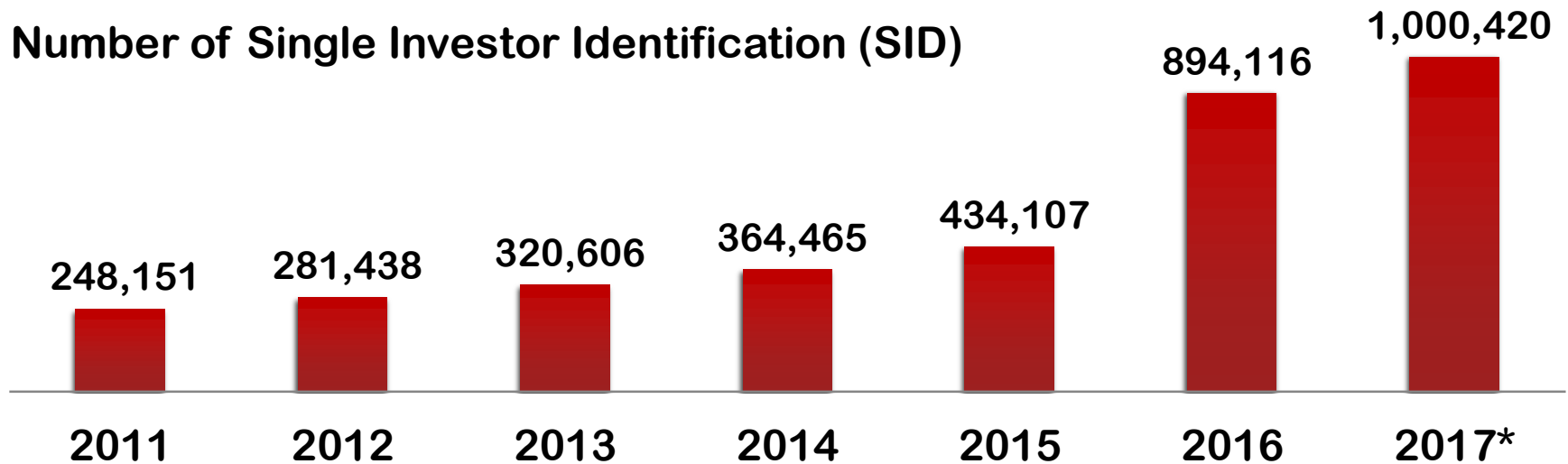
Market Cap. of IDX is around **US\$481 Billion** or **1.84%** among Asia-Pacific Region Exchanges

IDX : Indonesia Stock Exchange  
KRX : Korea Exchange  
SET : Stock Exchange of Thailand  
BM : Bursa Malaysia  
SGX : Singapore Exchanges  
TSE : Tokyo Stock Exchange  
HKEX : Hong Kong Exchanges  
SSE : Shanghai Stock Exchange  
BSE : Mumbai Stock Exchange  
ASX : Australia Stock Exchange  
PSE : Philippine Stock Exchange

Source : Bloomberg



# Background



\* Data until August 2017

Source : KSEI, 2017

The number of Investor in capital market is increasing, shown by the increasing of SID. However, this number is very low or only **0.38%** of number of population in Indonesia (population: 262 million people).

# Background

## How the government do it?



# Research Objectives

- To know whether there is **positive** relationship between willingness to invest in capital and consumers' expenditure
- To know whether there is **positive** relationship between willingness to invest in capital market and education level
- To know whether the new compensation limit of investor protection fund **can strengthen or weaken** the willingness to invest in capital market

# Literature Review

- Investor protection fund is a fund created by institution to provide protection for capital market investor who lost their fund or stocks
- Indonesia Securities Investor Protection Fund (SIPF) established on September 23, 2012
- SIPF also called as PT Penyelenggara Program Perlindungan Investor Efek Indonesia (PPPIEI or ISIPF)

# Literature Review

## Investor Protection Fund in Some Countries

<i>Country</i>	<i>Institution</i>	<i>Year</i>	<i>Coverage</i>
Canada	Canada Investor Protection Fund	1969	\$1 million
United States	Securities Investor Protection Corporation	1970	\$500,000
Australia	National Guarantee Fund by Securities Exchanges Guarantee Corporation Limited (SEGC)	1987	No maximum for individual
South Korea	Korea Deposit Insurance Corporation	1996	KRW50,000
Malaysia	Compensation Fund of Bursa Securities	1997	RM100,000
Japan	Japan Investor Protection Fund	1998 (1968)	JPY10 million
Russia	Investor Protection Association	1999	na
Hong Kong	Investor Compensation Fund by Investor Compensation Company	2003	HK\$150,000
Singapore	(Securities Exchange) Fidelity Funds	2001	SGD50,000
Thailand	Securities Investor Protection Fund	2004	THB1 million
China	China Securities Investor Protection Fund	2005	RMB100,000
Nigeria	Investor Protection Fund by Nigerian Stock Exchange (NSE)	2007	na
Indonesia	Indonesia Securities Investor Protection Fund	2012	IDR 100 million
Europe	Investor Protection	Na	
India	Investor Protection Fund	Na	

Source: Rokhim, 2017



# Literature Review

Rokhim, et.al, 2017	The increasing coverage value of SIPF in Indonesia capital market in August 2015 does not have any effect on market return
McLean, et.al, 2012	If there is a law related to investor protection fund, it would encourage efficient investment
Chiou, et.al, 2010	Countries with strong investor rights protection tend to have lower risk and greater mean-variance efficiency
Cyrus, et.al, 2006	Strong investor protection is conducive to global financial integration

# Literature Review

Atkinson, 1956

The higher income groups a greater proportion of the amount of asset holdings is in high-paying corporate equities than for the low income groups

Kontogeorges, 2014

Education is expected to have a positive effect on willingness to invest

Burke, 2009

Investors prefer to place their fund on a safe territory

# Population & Sample

## Population

- People who lives in JABODETABEK (Jakarta, Bogor, Depok, Tangerang, dan Bekasi)

## Sample

- Convenience Sampling
- 108 respondents

# Data

Category of Respondents	Number of Respondents
Investor Capital Market	37
Investor Non-Capital Market	17
Non-Investor	56
Total	108

# Methodology

- The study uses logistic regression
- Logistic regression is the appropriate regression analysis to conduct when the dependent variable is dichotomous (binary)

$$\ln \left( \frac{\pi_i}{1 - \pi_i} \right) = \alpha + \sum_{j=1}^n \beta_j X_{ji} + \sum_{k=1}^m \gamma_k D_{ki} + \varepsilon$$

$\frac{\pi_i}{1 - \pi_i}$  = odds ratio

$X_j$  = independent variable

$D_k$  = dummy variable

$\alpha, \beta_i, \gamma_k, \varepsilon$  = estimated parameters of logistic function

# Descriptive Respondents



---

Gender

**Male (53.6%)**

Female (46.4%)

---

---

Age

19-23 : 23.6%

24-30: 26.4%

**31-35 : 33.6%**

36-40 : 9.1%

>40 : 7.3%

---

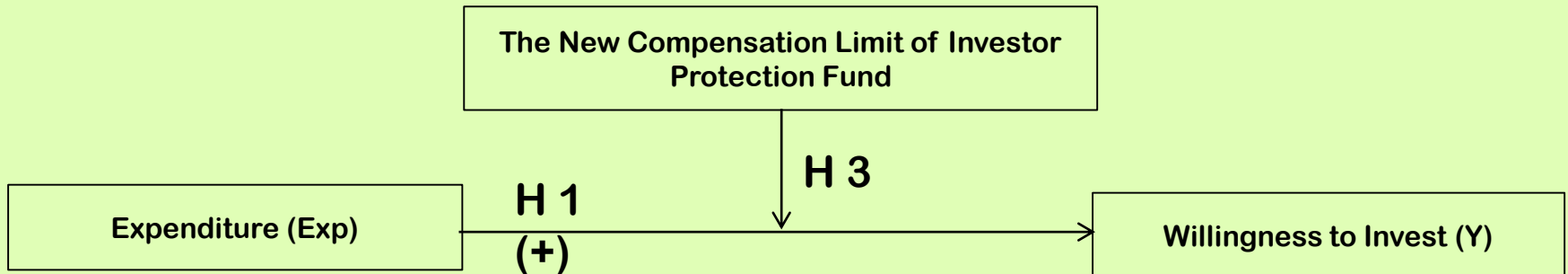
# Descriptive Data

Education Level	High School: 23.6%
	Diploma: 7.3%
	<b>Bachelor : 40.0%</b>
	Master: 27.3%
	Doctoral: 1.8%

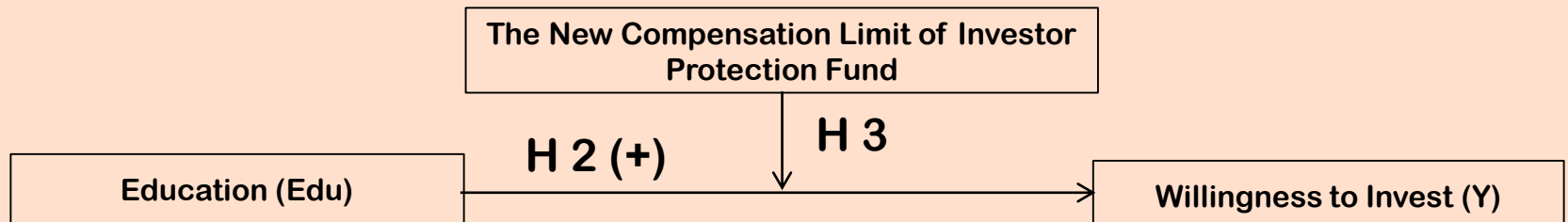
Occupation	Student : 26%
	<b>Employee: 50%</b>
	Lecturer: 11%
	Entrepreneur: 4%
	Other: 9%

# Research Design

## Model 1



## Model 2





# Research Model

$$\ln \left( \frac{\pi_i}{1 - \pi_i} \right) = \alpha + \beta_1 \text{Exp} + \beta_2 \text{Newlimit} + \beta_3 \text{Exp} * \text{Newlimit} + \varepsilon$$

Exp = expenditure of respondents

Newlimit = the level of knowledge from investor whether they know that Indonesia SIPF increase the maximum compensation limit

$\beta_1$  = coefficient of Expenditure variable

$\beta_2$  = coefficient of Newlimit variable

$\beta_3$  = coefficient of Exp\*Newlimit variable

$\varepsilon$  = error of regression

$\frac{\pi_t}{1 - \pi_t}$  = odds ratio

# Research Model

$$\ln \left( \frac{\pi_i}{1 - \pi_i} \right) = \alpha + \beta_1 Edu + \beta_2 Newlimit + \beta_3 Edu * Newlimit + \varepsilon$$

Edu = level of education of respondents

Newlimit = the level of knowledge from investor whether they know that Indonesia SIPF increase the maximum compensation limit

$\beta_1$  = coefficient of Education variable

$\beta_2$  = coefficient of Newlimit variable

$\beta_3$  = coefficient of Edu\*Newlimit variable

$\varepsilon$  = error of regression

$\frac{\pi_t}{1 - \pi_t}$  = odds ratio

# Expenditure and Willingness to Invest

Variables	Investor		Non-Investor	
	$\beta$	Odd Ratio (Exp(B))	$\beta$	Odd Ratio (Exp(B))
Expenditure	1.36**	3.91	-2.52**	0.08
New Limit	27.15		16.34	
New Limit * Expenditure	-1.36		2.52	
Constant	-5.93***		2.92*	
Cox & Snell R Square	0.57		0.61	
Nagelkerke R Square	0.76		0.85	
Observations	37		56	

- Investor → **significant positive** → **accept** hypothesis 1
- Non-investor → **significant negative** → **reject** hypothesis 1

# Education Level and Willingness to Invest

Variables	Investor		Non-Investor	
	$\beta$	Odd Ratio (Exp(B))	$\beta$	Odd Ratio (Exp(B))
Education	1.15*	3.17	-20.6	0.001
New Limit	25.47		-0.20	
New Limit * Education	-1.15		20.67	
Constant	-4.26**		21.58	
Cox & Snell R Square	0.56		0.67	
Nagelkerke R Square	0.74		0.94	
Observations	37		56	

- Investor → **positive significant** → **accept** hypothesis 2
- Non-investor → **negative insignificant** → **reject** hypothesis 2

# Result & Discussion

## (Willingness to Invest & Expenditure)

### Investor:

- The **higher** expenditure the **higher** the willingness to invest in capital market
- Expenditure as a disguise proxy for income of respondents
- Higher income → higher expenditure
- The **increasing** of income will be **lowering** the sensitivity of income to risk in the capital market. Thus, it will **increase** they willingness to invest in capital market (Shum and Faig, 2005)
- Individuals with **lower** income levels would prefer **low-risk** investment instruments (Benzoni and Chruk, 2009)

### Non-Investor:

- The **higher** expenditure the **lower** their willingness to invest in capital market
- Income was not found to be significant in classifying retail investors into financial risk tolerance categories (Kannadhasan, 2015)

# Result & Discussion

## (Willingness to Invest & Education)

### Investor:

- The **higher** education of investor the **higher** their willingness to invest in capital market
- People with **low** education level **do not take** risks (Grable and Lytton, 1998)
- Only high-educated people prefer bond instrument more since the lay people are not so familiar with it and they don't find it easy to grasp (Aren and Aydemir, 2015)

### Non-Investor:

- Retail investors are attributable as “**non-investment**” type of education rather than investment type education (Kannadhasan, 2015) & (Grable, 2000)

## Result & Discussion (the new compensation limit of investor protection fund)

- The new compensation limit of investor protection fund in capital market **cannot** be a moderator variable to strengthen or weaken the relationship between expenditure, level of education and willingness to invest in capital market
- It **will not** give significant impact for making decision to invest
- The majority of investors (approximately 83.78%) responded that they invest in capital market is because of **return**

# Conclusion

- Expenditure and education level of investor has **positive** significant relationship with the willingness to invest
- Expenditure of non-investor has **negative** significant relationship, but education level of non-investor has insignificant relationship with the willingness to invest
- The new compensation limit of investor protection fund in capital market **cannot strengthen and weaken** the willingness to invest
- Approx. 83.78% of respondents are more focus on high return than risk that they have to face in capital market



# Managerial Implication

- The government should find other alternatives to attract potential investor instead of change the new compensation limit of investor protection fund in capital market.
- They could potentially focused on high return-low risk scheme.
- The government and stock exchange should increase the awareness of people by appointing the social media influencer to attract the current generations