



REDENOMINATION: BETWEEN OPPORTUNITIES AND CHALLENGES

Study of the Implementation of Redenomination in Indonesia

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Abstract

The purpose of this article is to describe the opportunities and challenges in redenomination in Indonesia. The application of Redenomination has the potential to strengthen exchange rates and show real economic conditions but also causes hyperinflation if the implementation of the time is not right. From these studies, it is shown that a strong understanding of redenomination policies seems to be the main success factor in the implementation of redenomination in Indonesia. Furthermore, businesses consider the Indonesian economy to be better in terms of prices and exchange rates. At the microeconomic level, businesses consider that redenomination facilitates the recording of simpler financial transactions and encourages more dynamic businesses and increases productivity.

Keywords: Redenomination; Opportunities; Challenges.

INTRODUCTION

Bank Indonesia's plan to conduct IDR redenomination which began in 2010, has attracted a lot of criticism from various parties, both from economists, stock exchange observers, business people, and others. This topic will definitely be controversial, as Woodrow Wilson said: "If you want to make enemies, try to change something ..." it becomes very natural that there is public rejection/concern (Priyono, 2013).

Redenomination means that the nominal value of circulating paper money (and coins) changes - in practice, it decreases. With redenomination, all prices in the economy are reduced by the same value. No market subject is directly affected (disadvantaged or benefited) by the process. The process is usually accompanied by the issuance of new banknotes or stamping of outstanding old banknotes. Redenomination is usually applied after hyperinflation or when the economy is seriously affected by the dollar and the central bank wants to regain seriousness. High price levels cause a lot of discomfort in the economy - there are, for example, problems with expressing the

nominal value of goods and services, with accounting, statistical evidence, dealing with software, bank payment systems and the like. Redenomination can be seen as a step to complete the efforts of the central authority to stabilize price growth in the economy.

We agree with Ioana (2009), that in the theory of redenomination it should not have a direct impact on inflation because it does not change fundamental indicators that directly affect inflation. Only (and small) exceptions can be rounding prices. New prices can be slightly rounded up. In fact, prices are usually described in both (old and new) and redenomination versions so they should not lead to price rounding. But there may be an indirect effect of redenomination of currencies in the form of decreasing inflation expectations (Mosley, 2005). The market subject must be convinced (by redenomination) that the authorities mean that their struggle against inflation is serious and that the decline in the nominal value of the currency is a step in the process of disinflation. The subject must be convinced that inflation is a negative aspect of the old currency that will not reappear with the new currency. In this case, inflation could fall due to differences in the behavior of market participants who expect lower inflation. From this point of view, redenomination can be seen as another tool in a disinflation strategy that indirectly helps in reducing expectations and thus stabilizes the price level. We must mention that there are general costs associated with implementing redenomination as well. The minimum cost is printing banknotes and printing new coins, on advertising campaigns and software changes. Redenomination logistics is complicated because the responsible authorities must provide overall coordination of the processes that affect everyone in the entire economy.

Amoako-Agyeman (2014) defines the redenomination of currencies as the process by which a country's currency is recalibrated due to significant inflation and currency devaluation. He further stated that currency redenomination consists of removing a certain number of zeros from currency and carrying everything in its monetary scale. Nwaoba, (2010) considers redenomination of currencies as an exercise in which the state and their governments try to reaffirm their monetary sovereignty because of money increases or reduces the legitimacy of the government. According to (Mas, 1995), redenomination can also continue to add zeros to currencies as recorded in the immediate post-independence period by South Africa (1961), Sierra Leone (1964), Australia (1966), Bahamas (1966), among others.

Another reason is that "feeling the good effect" of reconstruction in the currency basically assumes that perceptions of the local currency will increase because people always start unconsciously linking current redenomination with revaluation (Lead Capital Limited, 2007). He also mentioned the countries that have redenominated their currencies, like: Brazil (1967, 1970, 1986, 1989, 1990, 1993, 1994), Afghanistan (2002), Germany (1923), Angola (1995, 1999), China (1955), South Korea (1962), Mexico (1993, 1996), Ghana (2007), Israel (1948, 1960, 1980, 1985), and Turkey (2005).



Mosley (2005) lists the names of other countries whose currencies have been redenominated. They include Uruguay (1993), Ukraine (1996), Sudan (1992), Russia (1998), Peru (1985, 1991), Poland (1995), Romania (2005), Argentina (1983, 1985, 1992), Azerbaijan 1992), Belarus (1992, 2000), Bolivia (1987), Chile (1975), Bulgaria (1999), Democratic Republic of the Congo (1993, 1998), (Croatia (1994), Georgia (1995), Latvia (1993) Lithuania (1993), Macedonia (1993), and Nicaragua (1998).

The redenomination discourse has actually been rolled out by Bank Indonesia since six years ago. This issue was motivated because the IDR currency was too large. The same thing was questioned by Ross H McLeod, an economist from Australia, why the IDR was not redenominated, because the nominal value was too large. As is known that currently the IDR currency is classified as the second largest currency fraction in the world after Vietnam. The IDR 100,000 denomination is the second largest after 500,000 Dong issued by the Vietnamese government. Previously Indonesia was third and Vietnam the second, after Zimbabwe, which had issued a Z \$ 10 million fraction, had redenominated its currency. Through redenomination, at least two benefits will be obtained, namely:

- First, to simplify the payment system that exists in the community without further impact on the economy. Through redenomination, Bank Indonesia can save money on printing costs. As is known, so far Bank Indonesia has printed fractions of IDR. 50 to IDR. 500, even the latest IDR. 1,000 denomination is only to fulfill needs, especially traders for refunds, because the prices of goods are generally not made round prices, for example IDR.
- Second, redenomination is expected to make the IDR more practical. Money with a large nominal is considered less efficient and troublesome payment. According to the study, the Indonesian currency is ideally redenominated by eliminating three zeros. So if IDR. 1,000 is deducted, it will be IDR. 1, while IDR. 10,000 becomes IDR. 10. If this happens, the fraction of the penny will run again.
- Finally, what is equally important is that Bank Indonesia must also maintain the money supply. If the money supply is not controlled to exceed 10%, this will trigger an inflator effect. As is known that until the end of 2009 according to Bank Indonesia estimates the growth of the money supply reached 10.7%. But in the previous year (2008) the growth of the money supply reached 26.3%. The growth in the money supply will trigger inflation, for example, in 2008 the high growth in the amount of money in circulation has triggered an inflation rate of up to 6%. Meanwhile, Bank Indonesia ability to reduce the money supply in 2009 was able to suppress the inflation rate to 2.9% (Makmun, 2010).

In addition, with the redenomination there will be an increase in the size of the company's operational costs and banking because it replaces information systems and

technologies that require time to adjust to apply accounting technology to adjust to nominal simplification. Bank Indonesia will also spend a large amount of money to print new redenominated money and public socialization. In addition, another social impact was community distrust of the IDR (Kesumajaya, 2011).

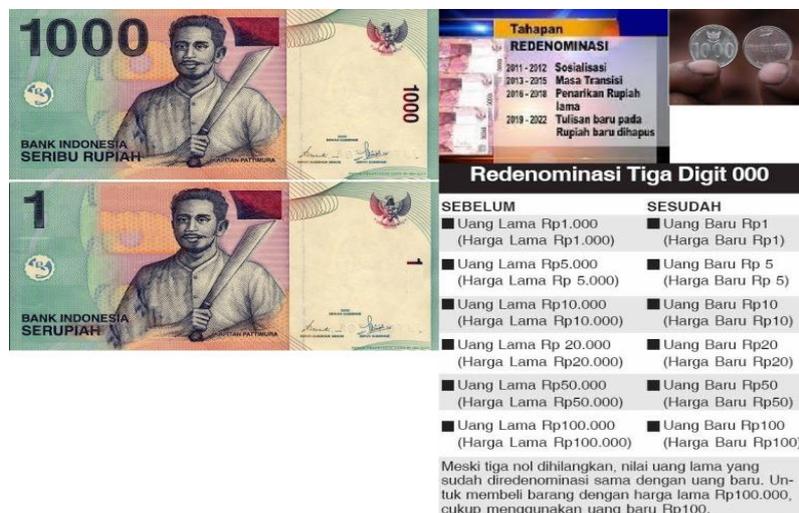


FIGURE 1. MONEY TO BE REDENOMINATED



FIGURE 2. MONEY THAT WILL BE REDENOMINATED

Indonesia is the third largest currency denomination country in the world, with a currency denomination of IDR. 100,000. Bank Mandiri Chief Economist Destry Damayanti said, redenomination or simplification of the nominal value of the IDR has several benefits, including pride as a nation. According to him, with the IDR exchange rate against the US dollar still large, there was an assessment that Indonesia's economy was still underdeveloped. He considered the redenomination policy would provide economic benefits to the community. The main benefit is pride. If you can do redenomination, the IDR exchange rate against the US dollar which is currently IDR 9,680 per US dollar becomes only IDR 9.6 per US dollar. This condition will be proportional to the value of the Malaysian ringgit to the US dollar of 3.05 ringgit, the Philippine peso of 41.92 pesos, the Thai baht of 30.52 baht, and the Singapore dollar of 1.23 Singapore dollars. "Do not let such Zimbabweans still have sheets worth 1 million. They also have high inflation," he said (Purwanto, 2013).



Several economists in Indonesia assert that the redenomination policy is not urgent. For example, A Tony Prasetyantono (Head of the Center for Economic and Public Policy Studies, (Universitas Gajah Mada) said that Indonesia's economy was "OK" with the current currency despite a trade deficit of US \$ 1.5 billion and a current account deficit of US \$ 20 billion (Prasetyantono , 2013). Similarly, Rizal Ramli (Lukihardianti, 2017) stated that redenomination would not provide significant benefits to the Indonesian economy and could potentially lead to forced inflation.

In Indonesia, the influence of religion and culture is strong in daily activities of both individuals and organizations (Frantz & Mayer, 2014), as well as limited access to information and formal education, will encourage the illusion of money not only in society but also businesses, especially small businesses and medium. The price of rounding up the main and supporting materials and the selling price of the product has the potential to occur considering that the Indonesian government has not accommodated nominal denominations below IDR100.00; they are IDR 50.00 and IDR 25.00. Whereas in business, the accumulated difference in prices of IDR 50.00 and IDR 25.00 per unit is still a relevant consideration in purchasing decisions. Likewise, philanthropy as part of social responsibility activities can increase, because nominal value of donations psychologically seems small by using new currencies. This opinion is supported by research (Prabawani & Prihatini, 2014) in Central Java, Indonesia, which shows that high business attention, especially SMEs, towards social elements is influenced by religious and cultural backgrounds. Therefore, a study to explore the positive and negative effects of redenomination in Indonesia from a business perspective of all business and industrial measures is needed.

Research on redenomination has been carried out using various positivistic and phenomenological approaches and involving various countries, such as Romania and Turkey (Muetter & Ioana, 2006), Ghana (Dzokoto, Mensah, Twum-Asante, & Opare-Henaku, 2010), Italy, France , Spain, and Germany (Santis, 2015). In Indonesia, redenomination research has been conducted by (Lianto & Suryaputra, 2012), (Purwana, Warokka, & Buchdadi, 2012), (Pambudi, Juanda, & D.s, 2014), and (Prabawani & Prihatini, 2014). However, research on redenomination in Indonesia usually focuses on individual perspectives; for example (Lianto & Suryaputra, 2012) and (Purwana et al., 2012), (Purwana et al., 2012). The sample size is also relatively small. For example, Lianto and Suryaputra (2012) only involved 100 people who understood the redenomination program. (Purwana et al., 2012) analyzed 90 middle-low income people in Jakarta. Other works mainly approach from the perspective of macroeconomics, for example (Ozdemir, 2008), (Priyono, 2013), (Ioana, 2009), and (Pambudi et al., 2014).

METHOD

The methods used in implementing redenomination in Indonesia are:

- The first stage is socialization in 2011-2012;
- The second stage is the transition period, in 2013-2015;
- The third stage is the search for old IDR, in 2016-2018; and
- The fourth stage is the new writing on the newly deleted IDR, in 2019-2022.



FIGURE 3. PLAN FOR THE STAGES OF REDENOMINATION

RESULTS AND DISCUSSION

Redenomination is carefully arranged and measured until the community is ready, so as not to cause unrest in the community. In the process of this stage of the Indonesian Government guarantees no Sanering.

Redenomination opportunities

Redenomination Alternative. So is it possible that redenomination can be implemented? The first discourse to appoint Bank Indonesia was to eliminate three zeros, IDR 1,000 (old) would be USD 1 (new). This will make the dollar value close to the value of the Chinese yuan and the Hong Kong dollar. If the denomination is applied, taking into account the old denomination, there will be three bills below the value of \$1 or fractions which cost IDR 100 to IDR.500, from IDR. 0.2 and 0.1 for USD 200 and USD 100. a long time. The use of this denomination is not so complicated because there are only 3 fractions below \$1. Compare that with Euros or US Dollars which have fractions of cents to 10 fractions from 0.01 to 1 Euro or 1 US dollar. The second option is to delete two zeros, which is USD 100 (old) to IDR 1. If this is implemented, referring to the old denomination of \$1 will be the smallest denomination of paper money no longer under \$1. In terms of complexity, this choice is more likely glance over the first choice.

This option will also place the amount equivalent to the Japanese Yen. The third and fourth option is to eliminate 1 and 4 zeros. For the first zero, what happens is that there will be no fractions below \$1. But this policy tends to be 'bear' because by observing the old denomination of IDR. 1 it will still not exist because it has been so extinct from circulation. So, if you eliminate 4 zeros, the dollar value will be very high and automatically 'prestige' high. Imagine if dollars were equivalent to U.S. Dollars. and



the Euro, will be very proud of all dollar holders. But there will be a lot below IDR. 1, IDR. 0.5 to IDR. 5,000, IDR. 0.1 to IDR. 1,000 and IDR. 0.05, IDR. 0.02, and \$ 0.01 for USD 500, USD 200 and IDR. 100. So there will be 5 fractions. under \$1.

Background of Bank Indonesia to do redenomination:

The biggest Indonesian denomination at present is IDR 100,000, which is the second largest fraction in the world after the Vietnamese currency has ever printed 500,000 Dong. The emergence of unrest over the status of the rupiah that is too low than in other currencies, such as the dollar, euro and other global money. Not a matter of substance but a matter of identity because the strength of the IDR is relatively stable, safe foreign reserves, maintained inflation, and good economic performance.

Fraction of Indonesian money that is too large will cause inefficiency and inconvenience in conducting transactions, because a lot of time is needed to record, calculate and bring money to make transactions so that inefficiencies occur in economic transactions. To prepare for Indonesia's economic equality with the ASEAN region in entering the era of the ASEAN Economic Community in 2015. To eliminate the impression that the nominal value of money that is too large seems to reflect that in the past, a country had experienced high inflation or had experienced unfavorable economic fundamentals.

The Role of Bank Indonesia in implementing opportunities for the redenomination plan

In implementing redenomination, several steps are needed. Bank Indonesia acknowledges that the application of redenomination is not easy so it must go through a process. Bank Indonesia has prepared the stages of simplifying the value of the rupiah or redenomination starting from 2011-2020.

Year 2010. This year the first time a redenomination discourse emerged. The Governor of Bank Indonesia, Darmin Nasution, said that he would eliminate three zeros behind the IDR. This step is to simplify the mention of the unit price or IDR value.

Year 2011-2012. Bank Indonesia began discussions with the government regarding the redenomination plan. This period is also a period of socialization. The Bank also prepares various kinds of things such as accounting, recording, information systems. In the stages of drafting the bill, the plan to print money and its distribution has also begun.

Year 2013-2015. This period was a transition period. The Ministry of Finance together with Bank Indonesia on January 23, 2013, officially held a series of socialization plans for denomination. The aim is to provide an understanding to the public that redemption is not a cut in the value of the currency (Sanering) but a simplification by eliminating some zeros. At this time there will be two types of currencies, namely old

denominations and new post-denomination fractions. It aims to familiarize the community in the use of new currencies, both in payments and transaction returns. For example, the price of a product worth IDR 10,000 will be written in two prices, namely IDR 10,000 (old IDR) and IDR 10 (new IDR). Bank Indonesia will also slowly replace old IDR damaged money with new IDR money.

Year 2016-2018. In this period, the government is targeting the current money (old IDR) will really not circulate anymore. Bank Indonesia will slowly withdraw old money in the transition period.

Year 2019-2020. The implementation of redenomination began to occur. This stage is called phasing out, which is when the IDR is returned with the word 'new' to IDR. Bank Indonesia will spread the use of new currencies as a substitute for old money.

Bank Indonesia prior to redenomination Indonesian banks first assured that all related infrastructure had been adjusted and arranged in such a way that it was compatible with new currencies with fewer zeros. The plan for IDR redenomination will be costly. Bank Indonesia also has to spend a lot of money to replace and print new money. Printing money always drains Bank Indonesia's budget.

There are three reasons Indonesia has implemented redenominalization, namely:

- Indonesia is under control, which is under 10%;
- Government debt from the percentage of Gross Domestic Product (GDP) continues to fall; and
- Stable economic conditions.

Redenomination will not have a negative effect on the economy. A strong economy and stable politics will facilitate the redenomination process. If business people believe that the economy is performing well, redenomination can run as expected. However, redenomination causes inflation to increase if business people perceive the economy to slow down or worsen when the policy is implemented. The success of redenomination can only be done when inflation and inflation expectations are stable and low.

The Indonesian population according to Central Bureau of Statistics has a poor population with income below US \$2 per day (USD 20,000 per day) which will be very busy with this redenominasi. They will be busy with their money which will convert many dollars into cents. If poor people are assumed to also have low education levels, then mathematics will also be their weak division, and certainly more difficult to make people in this group receive new redenomination IDR. Of the four choices, cents must be chosen with the least fraction or no fractions of cents below \$1. It seems the first choice (eliminating three zeros) and the second (eliminating two zeros) is a more likely alternative to choose. The second option does not even have a penny fraction below \$1. If this is chosen, Indonesia will have an equivalent Japanese Yen IDR value which must also be a beautiful 'commander'. This policy, once again in terms of economic



theory should not have any impact because there is no change in value in real terms. However, the sociographic conditions that are vulnerable to issues that make rational people have to reduce their attention.

Every policy that allows for rent seeking, both with economic and political motives, which will take advantage of the Indonesian Nation is a great nation, one of the great things we must show that we are proud to hold the IDR. In addition, redenomination not only aims to simplify economic transactions, but also to increase the authority of the IDR in foreign currencies. However, we should not be trapped in a "nominal trap", because the authority of the IDR is not really due to a large value, but because of its stable value. For the long term, redenomination of IDR is a necessity. Positive plans for redenomination must be applied carefully. So that Bank Indonesia as the most powerful party in determining the money supply in Indonesia, launches a discourse to cut the number digits in IDR value, this is done so that the dignity of the IDR value in the eyes of the international world is expected to have more selling value. Bank Mandiri Chief Economist Destry Damayanti said, redenomination or simplification of the nominal value of the IDR has several benefits, including pride as a nation. According to him, with the IDR exchange rate against the US dollar still large, there is an assessment that the Indonesian economy is still underdeveloped (Purwanto, 2013).

The impact of psychology on the community and investors will depend on how Bank Indonesia socializes. What must also be understood is that redenomination is different from sanering. Currency redenomination in theory will not cause a price increase because the price is also cut off. It's different with sanering. Currencies that experience sanering will decrease in value but the prices of goods are not guaranteed to go down. Thus, it will often reduce the purchasing power of money while redenomination does not. Community readiness is needed because without community readiness the economic turmoil can occur which is panic in the community. Forget the history of painful, because redenomination is not flashy. One sign of the End Times was the destruction of the Fiat Money System and the return to the Islamic Gold Dinar and Silver Dirham Financial System. Today we think that money is something that is not feasible, aka there is no physical (paper only picture), only mere bullshit numbers, then the money will return to nature is something of value and keep the gold dinar and silver dirham. The application of redenomination requires a minimum of five years and during that time traders must include two types of currencies namely old money that has not been deducted and new money so that public control is created. In addition, to carry out redenomination of exchange rates, a gradual withdrawal of money circulating in the community is needed (WK, 2017).

There are three requirements that must be met if you want to simplify the exchange rate unit. The three requirements are (Hardiyanto, Arif, 2013):

- a. Stable economic conditions;

- b. Low and maintained inflation; and
- c. Guaranteed price stability.

The background of Bank Indonesia to do redenomination is:

- 1) The biggest fraction of Indonesia's current money is IDR. 100,000, - which is the second largest fraction in the world after the Vietnamese currency once printed 500,000 Dong.
- 2) The emergence of unrest over the status of the IDR which is too low compared to other countries' currencies, such as the dollar, euro and other global money. Not a matter of substance but a matter of identity because the strength of the IDR is relatively stable, safe foreign reserves, maintained inflation, and good economic performance.
- 3) Fraction of Indonesian money that is too large will cause inefficiency and inconvenience in conducting transactions, because a lot of time is needed to record, calculate and bring money to make transactions so that inefficiencies occur in economic transactions.
- 4) To prepare for Indonesia's economic equality with the ASEAN region in entering the era of the ASEAN Economic Community in 2015; 5) To eliminate the impression that the nominal value of money that is too large seems to reflect that in the past, a country had experienced high inflation or had experienced unfavorable economic fundamentals.

Redenominasi encourages consumption behavior to be greater. Seeing changes in the behavior of these people, goods producers will increase prices to the limits that are still tolerated by consumers. According to (Juanda, 2010) the experimental data will be more easily interpreted in concluding the causal relationship compared to survey data or secondary data. The success of redenomination can be seen from changes in inflation rates and economic growth after the redenomination policy was implemented. A strong economy and stable politics will facilitate the redenomination process. If the Indonesian people believe and the government also believes that the economy is performing well, redenomination can run as expected. However, if the Indonesian people and government perceive the economy to slow down or deteriorate, then redenomination will cause inflation to increase.

The success of redenomination can only be done when inflation and inflation expectations are stable and low. "Indonesia is still a large exchange rate, so there is a perception that a country that has a large exchange rate has a backward economy. Moreover, the large exchange rate is still perceived as a developing country," said Bank Mandiri Chief Economist Destry Damayanti Jakarta (Purwanto, 2013). The application of redenomination must be shared with the development of public perceptions of the policy. Do not worry that what happens is the perception of cutting currency values, which makes people withdraw their funds from banks and invest



abroad, Redenomination is done when Indonesia implements the ASEAN Economic Community. At that time, Indonesia could equalize the value of the IDR with the currencies of ASEAN countries. At present it is not right because the economic crisis in Europe has not really passed and the real sector in Indonesia has not moved.

IDR redenomination is not expected to disturb the Indonesian capital market at all. Rationally, this (redenomination) can only be done when inflation is at a low level, and the economy is stable. This means positive, and the Indonesian economy is on track. If this opportunity is implemented properly, ie there is no swelling of inflation, then the likely positive impact that will occur is that financial transactions become simpler, facilitate financial accounting, improve the dignity of the Indonesian people in the eyes of the International.

- First, financial transactions are simpler, not too many digits, and speed up the calculation of transactions because there are fewer digits.
- Second, simplifying financial accounting. Because of the limitations of data storage in the machine, simplifying the IDR is very helpful to save time, reduce errors in reading financial statements that are often presented in millions of IDR, simplifying the calculation of statistical data for accounting report analysis.
- Third, increasing the dignity of the Indonesian people in the eyes of the International. For people who work collaborating with foreign companies, or partnering with foreign investors, this has a positive impact because in a nutshell the IDR will lift the image of Indonesia. For residents of Indonesia who do not partner with foreign companies, of course there is no impact from this redenomination (Dewi, 2013).

In economic theory, redenomination does not have any impact. In contrast to sanering and devaluation which have a direct impact on the exchange rate of money held by the community, it also has other economic impacts due to the continuation of this policy which includes export-import, inflation, and economic growth (Ministry of National Development Planning, 2017).

Inflation as measured by the consumer price index reflects the annual percentage change in the cost of the average consumer obtaining a basket of goods and services that can be fixed at certain intervals, such as annuals. Laspeyres formula is a method commonly used to calculate price indices. The Laspeyres index is a price index weighted by the base year quantity or quantity index weighted by the base year price (Siagian, 2006).

The need to carry out redenomination in Indonesia is based on several aspects, namely:

Economic inefficiency

1. The IDR denomination is quite large at this time, is considered to have caused inefficiencies in the economy associated with the first, causing considerable time and transaction costs. This too large fraction of money will cause inconvenience in making transactions. Transactions that use large nominal automatically will take a long time compared to small numbers. In addition, transaction costs will also be greater because the transaction time is longer. Second, the need for infrastructure development for non-cash payment systems in the future at a significant cost. For information that at this time the ability of computers can only accommodate 15 digit numbers, while the value of the State Expenditure Program Budget has reached 16 digits. It is possible that in the next few years business people, especially financial service providers, need to make adjustments to the accounting software and hardware system to accommodate the use of more than 16 digits in financial transactions if they are not redenominated. Third, increase the cost of procuring new money with a larger fraction to accommodate the increasing need for cash payments. With the increasing need for large denominations, the use of banknotes will be much higher with the use of coins, while the cost of printing banknotes is much higher than the cost of printing coins that have a longer circulation period.
2. Technical constraints on business operations In everyday life, technical constraints on operations by business actors are easy for us to meet. For example, at a gas station that only has 6 digit numbers so the officers will find it difficult if the transaction exceeds IDR1,000,000. Although at some gas stations outsmarting adding zeros with paper on the meter, this remains a problem that will continue to be faced with the use of large denominations. The same thing also happens in taxi meter which only has 6 digits. Another technical obstacle is that with large denominations it will require large storage media, besides that in processing data for statistical purposes it will also take a longer process because the data used is very large. Another obstacle encountered was that business actors would find it difficult to present the overall data in their financial statements. Large denominations will also cause potential human error in the entry/collection, processing, and presentation of data will be greater.
3. Supporting the national economy in entering the era of the ASEAN Economic Community in 2015 Indonesia will face a trade liberalization in the ASEAN region which is often referred to as the ASEAN Economic Community (MEA). This liberalization of trade is expected to create greater market opportunities than when world trade was fragmented because of the protection applied in many countries towards imported products (Tambunan, 2013). In addition, the formation of economic integration is expected to provide benefits such as encouraging the development of local industries, increasing trade benefits through improving terms



of trade, and promoting economic efficiency in an economic region (Meier, 1995). With MEA in 2015, ASEAN will have 4 main characteristics, namely as a single market and production base unit, competitive economic zones, equitable economic growth and increasing the ability to integrate with the global economy (Bank Indonesia, 2009). The current condition of Indonesia's economic fundamentals can be categorized as a strong enough economy for the successful implementation of the MEA in the year.

Bank Indonesia strongly believes that IDR redenomination will not experience the tragic fate of the Zimbabwean dollar. Why? Because the failure of Zimbabwe to redenominate some time ago was triggered by the uncontrolled inflation rate in the country.

1. Redenomination is needed to improve or overcome inefficiencies that can occur due to the higher time and transaction costs needed because the value of transactions in the community is getting bigger and bigger. Especially if the transactions carried out rely on cash payments.
2. Redenominasi helps overcome infrastructure development inefficiencies for non-cash payment systems that typically use large fees. The nominal value (digits) of the transaction is getting bigger and bigger, and the more troublesome. As a result, problems were also found in recording money. The bigger the transaction, the longer the recording, and the more expensive.
3. Redenomination is a form (anticipation) of the Indonesian government and monetary authorities for ASEAN single currency discourse, so that the currency (IDR) of the IDR is quite equivalent to the currencies of other ASEAN countries. At present, Indonesia and Vietnam are two countries that have large currency digits among countries in the ASEAN region.
4. The Redenomination process usually consists of the following stages:
 - (a) Socialization;
 - (b) Transition phase; and
 - (c) Old currency withdrawals.

Because each country has different characteristics, the impact of the redenomination process in each country must also be different. Therefore, in the currency redenomination policy, the important thing that must be done by the monetary authority of a country is to ensure that we will benefit from this central bank policy (Turambi, 2015).

Countries that Successfully Implement Redenomination

Turkey. The Turkish Central Bank made a redenomination policy in 2005 for two reasons. First, technical reasons given the large number of zeros in the currency

complicate the calculation of financial transactions. Second, redenomination is done to increase the credibility of the economy. The existence of a currency (bank note) of 20,000,000 is a very unnatural thing in the international economy, and has been considered to have a negative effect on the credibility of the Turkish economy. The simplification of currencies is a necessity for the Turkish community in the real sector and the financial sector such as banking, capital markets and payment systems (Serdengecti, 2004).

Romania. Romania conducted redenomination on July 1, 2005 by removing 4 digits of its currency. Romania's main reason for redenomination is the desire to join the Euro. Romania made very planned preparations to fulfill its desire to join the Euro single currency. The steps taken by Romania in implementing the redenomination policy are, first, on July 14, 2004 the enactment of the law concerning redenomination. Second, March 1, 2005 until June 30, 2006 dual pricing of new and old currencies. Third, on July 1, 2005 new money (paper and metal) was circulated. Fourth, on 1 July 2005 until 31 December 2006 the circulation of two currencies and the gradual withdrawal of old money. Fifth, since January 1, 2007 old money does not apply. Sixth, from January 1, 2007 to an undetermined time, old money can be exchanged for new money (Isărescu, 2006).

Redenomination Challenges

Challenge background

The main problem of the economy of Indonesia and even the World is, assuming that money has a time value. So that money is better kept in a safe place than must be circulated, but it is not profitable, what else if the money is circulated, but it has the potential loss for the owner. So the government made an effort to overcome the Indonesian economy in a financial system, especially the value of the Indonesian currency that would make changes in the value of its currency to be better. Therefore, the government agreed to the plan to continue the process of the Currency Redenomination Bill. This was revealed by the Governor of Bank Indonesia, Agus Martowardojo after meeting President Jokowi at the Merdeka Palace, Jakarta, Tuesday (07/25/2017). "I report to the President about the Currency Redenomination Bill with the Minister of Finance. The President then welcomed the bill and later it will be presented at the cabinet meeting," Agus said. "Then, the President will give a final direction and we will then discuss it with the Legislative Assembly. The process continues," he said. If the process is smooth, Agus hopes that the people's representatives in the Indonesian House of Representatives will include the Currency Redenomination Bill that was submitted to the Indonesian Parliament in 2013 to the priority National Legislation Program for 2017 (Kuwado, 2017).

What about the effect of redenominasi on the stock market? Besides we will be able to buy shares at lower prices, market participants will be negative because in general they want economic stability. Although redenomination does not theoretically disrupt



economic activity, the psychological impact that this has on society will be quite worrying for market participants.

When can redenomination be implemented? Redenominasi according to Bank Indonesia can take as long as 10 years. The initial stage of socialization in 2011-2012 and later in 2013, made Redenomination become a transition period until 2015. Now in this transition period, two assessments will be used, called the old rupiah and new rupiah. So you can buy books at a price of IDR. 100,000. You can only use a IDR. 100,000 denomination, or use a new IDR for IDR. 100 (IDR redenomination). This seems to confuse the public later when making transactions, especially producers themselves will also give 2 prices, old dollar prices with new dollar prices. Especially people who have felt aggrieved because of the Sanering policy in the old order. All fears that were carefully thought out by Bank Indonesia, they have conducted comparative studies in Turkey which succeeded in redenomination in 2004. Already many countries have succeeded in Redenomination, such as Turkey, Vietnam has the largest denomination in the world after Indonesia, from 500,000 Dong. and does not take into account Zimbabwean denominations of 100 billion US dollars on one Zimbabwean currency sheet.

Strategy to overcome challenges

To overcome the technical challenges and obstacles in increasing economic efficiency, and to foster national pride, a policy of IDR redenomination is needed as follows, (Turambi, 2015). The need to carry out redenomination in Indonesia is based on several aspects, namely:

- a) Economic efficiency; occurs in many aspects, such as payment systems more efficient, the prices listed are simpler, the process of recording, storing, managing, and reporting data in financial statements/statistics is shorter, faster, and can be presented in full, and in the aspect of information technology, redenomination will reduce software adjustments and the hardware needed related to limitations in software and hardware to accommodate larger numbers.
- b) Reducing obstacles/constraints in the form of technical risks of possible human error in the posting process. or other statistical activities.
- c) Higher public perception / trust in the IDR.
- d) Price changes in a narrow range.
- e) Driving efforts to direct inflation expectations lower to level.
- f) Reducing the risk of currency substitution. This supports a more stable dollar value.

g) Supporting economic equality with the ASEAN Economic Community in 2015.

Ibnu Khaldun (1962), said that a country would not be able to carry out sustainable development without justice in its system. Price stability means the guarantee of fairness of money in its function so that the economy will be relatively in a condition that allows the allocation of resources equally, income distribution, optimum growth, full employment and economic stability (Karim & Arif-Uz-Zaman, 2013: 179).

Redenomination terms can work well

According to the Economist Institute for Development of Economics and Finance (INDEF) Bhima Yudistira spoke about the planned redenomination of the IDR which will be rolled into the National Legislative Program. He considered, the policy must be reviewed and matured first because it can have an impact on inflation. "There are at least three redenomination requirements. The exchange rate is stable, inflation can be controlled and economic fundamentals must be in good condition. Because redenomination also requires long preparation and socialization, "he explained (Suheriadi, 2017).

Redenomination can be done when economic conditions are good and inflation is under control. Thus, it is hoped that there will be no public unrest which therefore the community must have price controls on goods/services. This can be done by giving two prices, namely the price before redenomination and the price after redenomination. The Indonesian inflation data according to Bank Indonesia data (Bank Indonesia, 2009) are as follows.

Indonesian Monthly Consumer Price Index and Inflation,
 2005, 2006, 2007, Jan-May 2008 (2002 = 100), June 2008 - December 2013
 (2007 = 100), January 2014 - December 2016 (2012 = 100), January - September 2017 (2012 = 100)

Month	2005		2006		2007		2008		2009	
	IHK	Inflation	IHK	Inflation	IHK	Inflation	IHK	Inflation	IHK	Inflation
January	118,53	1,43	138,72	1,36	147,41	1,04	158,26	1,77	113,78	-0,07
February	118,33	-0,17	139,53	0,58	148,32	0,62	159,29	0,65	114,02	0,21
March	120,59	1,91	139,57	0,03	148,67	0,24	160,81	0,95	114,27	0,22
April	121	0,34	139,64	0,05	148,43	-0,16	161,73	0,57	113,92	-0,31
May	121,25	0,21	140,16	0,37	148,58	0,1	164,01	1,41	113,97	0,04
June	121,86	0,5	140,79	0,45	148,92	0,23	110,08*)	2,46*)	114,1	0,11
July	122,81	0,78	141,42	0,45	149,99	0,72	111,59	1,37	114,61	0,45
August	123,48	0,55	141,88	0,33	151,11	0,75	112,16	0,51	115,25	0,56
September	124,33	0,69	142,42	0,38	152,32	0,8	113,25	0,97	116,46	1,05
October	135,15	8,7	143,65	0,86	153,53	0,79	113,76	0,45	116,68	0,19
November	136,92	1,31	144,14	0,34	153,81	0,18	113,9	0,12	116,65	-0,03
December	136,86	-0,04	145,89	1,21	155,5	1,1	113,86	-0,04	117,03	0,33
Inflation rate		17,11		6,6		6,59		11,06		2,78

Source: Link: <http://www.bps.go.id/linkTabelStatis/view/id/907>



Month	2010		2011		2012		2013		2014	
	IHK	Inflation	IHK	Inflation	IHK	Inflation	IHK	Inflation	IHK	Inflation
January	118,01	0,84	126,29	0,89	130,9	0,76	136,88	1,03	110,99 2)	1,07
February	118,36	0,3	126,46	0,13	130,96	0,05	137,91	0,75	111,28	0,26
March	118,19	-0,14	126,05	-0,32	131,05	0,07	138,78	0,63	111,37	0,08
April	118,37	0,15	125,66	-0,31	131,32	0,21	138,64	-0,1	111,35	-0,02
May	118,71	0,29	125,81	0,12	131,41	0,07	138,6	-0,03	111,53	0,16
June	119,86	0,97	126,5	0,55	132,23	0,62	140,03	1,03	112,01	0,43
July	121,74	1,57	127,35	0,67	133,16	0,7	144,63	3,29	113,05	0,93
August	122,67	0,76	128,54	0,93	134,43	0,95	146,25	1,12	113,58	0,47
September	123,21	0,44	128,89	0,27	134,45	0,01	145,74	-0,35	113,89	0,27
October	123,29	0,06	128,74	-0,12	134,67	0,16	145,87	0,09	114,42	0,47
November	124,03	0,6	129,18	0,34	134,76	0,07	146,04	0,12	116,14	1,5
December	125,17	0,92	129,91	0,57	135,49	0,54	146,84	0,55	119	2,46
Inflation		6,96		3,79		4,3		8,38		8,36

Month	2015		2016		2017	
	IHK	Inflation	IHK	Inflation	IHK	Inflation
January	18,71	-0,24	123,62	0,51	127,94	0,97
February	118,28	-0,36	123,51	-0,09	128,24	0,23
March	118,48	0,17	123,75	0,19	128,22	-0,02
April	118,91	0,36	123,19	-0,45	128,33	0,09
May	119,50	0,50	123,48	0,24	128,83	0,39
June	120,14	0,54	124,29	0,66	129,72	0,69
July	121,26	0,93	125,15	0,69	130,00	0,22
August	121,73	0,39	125,13	-0,02	129,91	-0,07
September	121,67	-0,05	125,41	0,22	130,08	0,13
October	121,57	-0,08	125,59	0,14		
November	121,82	0,21	126,18	0,47		
December	122,99	0,96	126,71	-0,07		
Inflation rate		3,35		3,02		2,66

Note:

*) Since June 2008, CPI has been based on consumption patterns in the cost of living survey in 66 cities in 2007 (2007 = 100)

2) Since January 2014, CPI is based on consumption patterns in the cost of living survey in 82 cities in 2012 (2012 = 100)

Source: <http://www.bps.go.id/linkTabelStatis/view/id/907>

Negative results that occur when redenomination is implemented poorly

Although redenomination is expected to provide positive implications for the Indonesian economy, but unfortunately the application of redenomination also has the possibility of risks that must be anticipated. The several possible risks are:

- 1. Increased inflation due to excessive price rounding.** This redenomination program will potentially lead to price rounding up with a reason to facilitate transactions by business actors. Even though the draft proposed by the government to the Indonesian Parliament regulates the procedures for rounding up, rounding off by business operators has the potential to be excessive due to the impact of money illusion from this redenomination program. With rounding, the price increases. If this happens to all products and services, it will encourage high inflation. But with the inclusion of the same 2 price inclusion obligations during the transition period, this is expected to be avoided.
- 2. Large expenditure by the government.** The success of the redenomination program will depend on the success of socialization to the community so that there will be no confusion in the transaction. Then, huge costs will be needed starting from preparation, academic studies, comparative studies, bills, laws, socialization, to implementation, supervision and sanctions. And the bigger the cost of spending is for the cost of printing new money to replace the old money circulating in the community.
- 3. Rejection of part of the community and increase the burden of business actors.** Although this is good for national interests, it still has the potential for rejection from some parts of the community. Today the community is very accustomed to the use of large denominations because they feel counting money hundreds is much easier than counting with lots of cents. Especially for entrepreneurs, the implementation of this redenomination program will provide additional burdens, because it creates an obligation to include 2 prices that apply during the redenomination transition period.
- 4. Psychological effects.** Implementation of IDR redenomination has the potential to cause psychological effects such as fear and doubt for entrepreneurs. Producers for a certain period of time will hold back selling their products because they have a psychological feeling that the money they receive is small and will happen to increase the selling price which can eventually trigger inflation. Besides that, the past sanering experience felt by business actors still traumatized, considering that there are still many business people who have experienced these sanering events.
- 5. Potential disputes between business actors and consumers.** This redenomination policy has the potential to cause disputes, especially for transactions that have been bound by the agreement. With this change in denomination, it is feared that the binding of transactions in an agreement will harm one party which leads to a dispute. But of course with the existence of laws and regulations that regulate the technical aspects of redenomination, this can certainly be avoided.



Countries that Failed to Implement Redenomination

Brazil. Brazil is one of the countries in Latin America that has done redenomination several times. Brazil has recorded 6 redenomination, namely 1967 (lost 3 zeros), 1970 (lost 3 zeros), 1986 (lost 3 zeros), 1989 (lost 3 zeros), 1993 (lost 3 zeros), and 1994 (lost 3 zeros) (Serdengecti, 2004). In the implementation of the redenomination program in the period of the early 1990s, it was considered to have failed. Failure is due to the fact that Brazil's economic fundamentals are actually in an unfavorable condition and the government is considered unable to manage its macroeconomic indicators. The high rate of inflation has caused the economy to only grow in the range of 0-1% in the 1990-1992 period. In addition, the Government of Brazil adopted a fiscal deficit policy to finance development with these sources of expenditure funding not originating from tax revenues but by printing money (money creation) so that there was a condition of discrepancies in the growth of the money supply with the capacity of the economy. After redenomination, the inflation rate remains high even though the government has stabilized the economy (Bank Indonesia, 2014b).

Russia. Russia has failed in implementing the redenomination program in 1998. The redenomination program plans to eliminate three zeros from its currency. redenomination aims to convince the public that the economic crisis. Russia has passed marked by a huge decline in inflation from year to year, starting from 875% in 1993 to 200% in 1995, and finally reaching 15% in 1997 (Dogarawa, 2007). However, determining the wrong timing makes the implementation of redenomination in Russia fail, where the stability of the international economy is in a situation that is not supportive. After redenomination, there was pressure on the ruble as a result of the spillover of the fall of Asian currencies, which caused the government to be unable to pay its foreign debt. This worsened the situation because the ruble exchange rate continued to depreciate, causing an increase in the inflation rate after being redenominated. The country again experienced very high inflation in 1999, amounting to 86% (Latif, 2010).

The findings of Hardiyanto, Arif (2013) who stated that the perception of business people who experienced fear or shock from the impact of redenomination did not appear in this study, this was because the lowest education of the research respondents was High School/Vocational High School with the majority having bachelor's degrees. Indicators of employee conditions were found to be unable to reflect business performance in this study because the impact of redenomination was considered to have no effect on the condition of employees. In this case the government is expected to have prepared preventive programs to avoid the shock that experienced by business actors, especially small and micro businesses. The incentives and socialization with a personal approach are expected to be the solution to the policy

succession of IDR redenomination.

Research by Mosley (2005) which sees the influence of redenomination on credibility and public trust in currencies in developing countries states that the risks arising from the impact of redenomination of currencies are strongly related to public opinion. This indicates that the public perception is very important to analyze related to the IDR redenomination program. In addition to this, a factor of public trust in the government should be considered. Business actors who are the main drivers of the economic sector in Indonesia have become very important in the succession of the IDR redenomination program.

CONCLUSION

From several studies conducted by several other countries, Indonesia still has the opportunity to establish IDR currency redenomination even though there are several challenges that must be faced.

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