

## ANALYSIS OF LOPPING ZEROS FROM NATIONAL CURRENCY OF IRAN AND SOME OTHER COUNTRIES

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### ABSTRACT

*Money is not only the facilitator of the economic exchanges, but affects the national identity of citizens and authority of governments and would be treated as a tool to empower governments. Today, monetary policies controlling becomes difficult, so slashing zeros from the national currency can be employed as a part of the economic reforms package. Removing zeros from the national currency per se cannot be effective to eliminate inflation. It should be carried out in the framework of a series of important economic reforms. Taking advantage of similar experiences of the other countries will lead to better, faster and less expensive consequences; hence, the condition in which zeros were removed from the national currencies of some countries is analyzed in this paper and their experiences will be used to cut zeros off of the Iranian currency. Likewise, Iranian economic status quo, advantages and disadvantages caused by lopping zeros from the Iranian national currency and finally conclusion and propositions will be dealt with in this study.*

**Keywords:** *Currency, Removing Zeroes from National Currency, Value of National Currency, Rial*

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### INTRODUCTION

The value of national currency of each country depends on a myriad of factors among them economic situation of the country in the world, efficiency of the government and securing the costs, political, legal and judicial stability for attracting foreign investments, observing the international law and regulation and being in line with international changes, etc.

Devaluation of national currency results in many social and psychological impacts. When national currency is being devalued, people feel a sort of humiliation in relation to other strong currencies. In addition, a change in the value of currency and in its volume, which is the result of such changes, brings about many hygienic impacts. The phenomenon of "currency replacement" occurs when along with devaluation of national currency, people show a tendency to use foreign currencies for their daily exchange.

The most significant use of deleting zeroes in economy is maintaining the value of national currency. Removing zeroes from national currency is more a political measure from the governments rather than an expert and technical one and is considered to be part of the package of economic reforms.

Removing zeroes from national currency is a tool for governments' support of the strength of currency policies. This measure has an important role in boosting public confidence in governments. In democratic regimes, removing zeroes from national currency can play a significant role in re-election of a particular party. In contrast, if people lose their confidence in national currency, they will start using foreign currencies, particularly as they have more prestige, and this leaves enormous economic and psychological pressures on governments. Therefore, the economic policies of governments will be influenced by international financial markets and foreign central banks will affect the economic policies of the country in question. Therefore, removing zeroes will prevent the penetration of foreign currencies in the economy and the consequences.

### Why governments remove zeros from their national currency?

When the value of money is preserved by public trust in lieu of gold and silver, the governments begin to feel heavier responsibility to conserve either value or position of their national currency. Inflation is enumerated as a cause for removing zeros from the national currencies. Both liquidity growth and increased money supply fuel

inflation growth and the government may eliminate rising inflation by slashing zeros from its national currency. In other words, countries suffering from massive inflation rate and depreciated national currency have embarked on lopping zero(s) from their bills in order to simplify economic and commercial transactions as well as to decrease costs of banknote printing process. Most economists, however, come to believe that only removing zeros from banknotes does not affect the economic indicators as well as demand & supply parity, but its impact is just restricted into psychological effects upon the society. Therefore, cutting off zeros can be effective only when it is accompanied with other restrictive measures such as monetary policies and fiscal discipline of the governments, otherwise the psychological effects caused by the departed zeros will be nullified very soon and they will come back stronger than ever.

### **History of removing zeros from the national currency of certain countries**

The solution of removing zeroes from national currencies is usually used in the countries in which the national currency has too many zeroes. Since 1960, in 71 cases developing governments have been forced to remove a number of zeroes from their national currencies.

Removing zeroes from national currencies was first carried out in Germany and after World War II. Under the economic pressures of World War II and the remained damage, this country experienced a huge inflation that forced economic policy-makers of the country to remove zeroes from deutschmark. During the last 50 years, 19 countries have removed zeroes from their national currencies and 10 countries have done this twice. Zeroes have been shed from national currencies 4 times in Argentina, 5 times in former Yugoslavia, 6 times in Brazil, two times in Bolivia 3 times in Ukraine, Russia, Poland and Belgium, and once in Turkey, Island, Korea, and Ghana.

### ***Lopping zeros from Argentina's national currency***

Economic downturns in Argentina depreciated its national currency considerably and brought about dollar crisis there in 1992. Thus, the Argentine government had to undertake the economic reforms with a priority to cut zeros from its national currency in order to prevent from sharp rise in inflation. In 1960, 1100 to 3500 Argentina pesos equaled 1 USD. By removing two zeros from its currency, Argentina fixed its peso value to dollar value. In the early 1980's, each USD was exchanged for 18,000 to 180,000 pesos. The Argentine government slashed 4 zeros from its bills in 1983 but it was useless because confining into removing zeros from the national currency without applying all-embracing economic reforms will be fruitless; thus, subsequent to monetary, financial and reformative policies in the early 1990's, removing 4 zeros from the national currency of Argentina was resulted in a desired outcomes and it declined inflation rate drastically there.

### **Brazil: Holding the Record of Deleting Zeroes**

Brazil suffered from one of the heaviest inflations of the time in 1960s and 1970s in a way that the county's currency was being devalued between 30 to 40 per cent each month. Before that, Brazil's national currency had changed its name twice between 1930 and 1942. In 1967, three zeroes were removed from Brazilian national currency, called Cruzeiro, and the currency was re-named as New Cruzeiro. However, Brazil failed to control the inflation and inflation reached 151 per cent in 1981, during which time Brazil removed three other zeroes from national currency. In 1989, the inflation increased again and reached 1431%, forcing the country to remove zeroes and change the name of the currency. In 1993, when inflation was about 2000%, another 3 zeroes were shed. This time, the government managed to control the inflation. Meanwhile, Brazil is still considered one of the most expensive Latin America's countries. From 1930 to now, 18 zeroes have been removed from Brazilian national currency in 6 times and the currency has been re-named 8 times.

### **Netherlands, Developed Experience**

Dutch Disease is now a familiar term in economic literature. The appearance of sudden revenue resources from exploitation of gas resulted in an unpredictable inflation in Netherland in 1060s. The government was forced to publish large bills in order to satisfy people's needs in daily exchanges. Meanwhile, the inflation went above 100%. In fact, the government did not last so long. The government started severe policies in currency policies and managed to control the volume of money. In addition, 4 zeroes were removed from the bills of the country. Netherland is a great example, showing the success of the policy of deleting zeroes when it is accompanied by other policies which control liquidity.

### **Turkey, Successful Experience**

Turkey is a European country while having the grounds that are similar to developing countries. It suddenly removed 6 zeroes from its currency in 2005. Inflation started in Turkey in early 1980s and gathered momentum. Each US dollar was traded with 1422 Turkish old Lira in 1988, and it reached more than 5.1 million Liras in 2003. Each sandwich was being sold for 3 million old Liras in Turkey. Since 1981, the need for having larger notes was being felt every two years.

In a 25-year cycle, the largest Turkish bill turned from 5000 Lira to one million Liras. The large number of zeroes in economic items and exchanges, which sometimes reached multi trillion Liras, had created many problems for people and had made life difficult for those living in this country. According to reports, people had to pay multi-million Liras for buying a piece of bread in the early 2000s in Turkey.

On first of January 2004, the instruction for removing 6 zeros from Turkish Lira was presented and its execution was postponed to early 2005. On the first of January 2005, new bills and coins, called New Lira, entered the market. Execution of this initiative, provided the grounds for economic growth however, the key to its success should be sought in the policies that resulted in this growth.

The economic experts of International Money Fund (IMF) consider Turkey's success in combating inflation the reason behind the effectiveness of the policy of removing zeroes from national currency. According to the report provided by IMF, Turkey managed to fully control the inflation and reduce the inflation rate to single-digit figures before removing zeroes from its currency. Meanwhile reforming currency market helped the economy to set the grounds for economic growth.

Removing zero from Turkey's currency became concurrent with full inhibition of the inflation using diverse economic tools. As a result, the new lira became able to meet its responsibility as a new exchange unit and to pave the grounds for economic growth of the country.

Turkey performed reformative and mitigating measures for more than two decades. Some of the inflation volatilities in Turkey were results of its mitigating plans. Turkish mitigating plans were implemented as a political package. The chronological sequence of plans was observed and finally Turkey followed the realization of its central bank independence via reforming its banking system. Adherence to a disciplined budget by the government even was associated with budget surplus for some years in Turkey. Keeping the parity at monetary and price-based changes of the country is considered as one of the fundamental properties of mitigating and establishing plans of Turkey. Therefore, lopping some zeros from its national currency was not resulted in negative distributional/allocative effects, but has improved economic allocation mechanisms in turn through taking public confidence and gaining reputation for the government.

#### **Zimbabwe: a Total Failure**

Zimbabwe's government decided to remove three zeroes from the national currency when inflation reached 1000% in 2003. However, the government had practically done nothing in regard to controlling the inflation and was only thinking of the psychological effect of deleting zeroes. It is axiomatic that the efficiency of removing zeroes lasted for a short time. The rising inflation eventually ruined the country's economy and Zimbabwe's dollar diminished.

The inflation in the African country went above 11 million per cent and the government was forced to issue 100 million dollar bills in order to provide people with the required bills. The new bills could not solve any problems and they even resulted in many problems in trade and in accounting. The high volume of money in this country posed many problems for people in Zimbabwe. Meanwhile the central bank of the country announced that there was not enough bill paper available to issue the required amount of bills.

#### **Lessons from other countries' experiences for economy of Iran**

What is concluded from the experiences of the other countries is that in confrontation with the short-term hyperinflation caused by wars or with massive and destabilizing inflations during economic transition periods, the mentioned countries have involved in reforming or changing their national currency and they intended to signal the society that the destabilizing condition has been wrapped up by commencement of the stabilizing and trust era created by the stabilizing measures; sometimes during confrontation with high inflations and sovereignty of the unstable expectations, they have used this strategy (changing currency) as a tool to stabilize inflationary expectations or to complete their monetary and economic policies. Their experiences show that the actual position of changing currency is the effect and not the cause. By following this policy, In other words, governments only turn their back to the unstable condition and to resort the stability by way of the monetary, actual and substantial reforms, so it is a signaler and final complementary policy. Similarly, any proceeding to change the national currency is doomed whenever the economy has not been stabilized by stabilizing policies, actual and substantial measures; so the inflation remains and is converted to a kind of condition by which changing national currency is repeated many times. The Turkish case is a successful sample of changing national currency policy. After applying reformative, substantial policies and some successful social changes in order to pave the grounds for joining to EU, Turkey has embarked on removing 6 zeros from its currency in

2005 and it was very successful as the last complementary ring of the previous fundamental actual and monetary measures.

Another case is unsuccessful experience of Argentina in lopping zeros from its national currency for several times. It has changed its national currency several consecutive times. Initially, in 1979 i.e. in the thick of its inflation years, Argentina has removed two zeros from its currency, but it remained sterile and again the inflation was accelerated and the value of its currency continued a depreciative pace. This country in another affectless decision cut 4 zeros off of its currency in 1983 but both inflation and instability remained high, so, in 1985 it removed another three zeros from peso which finalized with a similar result. These experiences indicate that removing zeros from the national currency per se will not lead to desired outcomes. However, in response to monetary, fiscal and reformative policies of the early 1990's, slashing 4 zeros from peso of Argentina has resulted in desired achievements and it decreased drastically inflation rate.

### **Iranian status quo and removing zeros from its currency**

The liquidity rate in Iran has been intensely instable during the past 40 years. The current facts and statistics show that according to the *quantity theory of money* a major part of monetary volume changes has been manifested in increasing general level of price and inflation. Such trend suggests a dynamic, self-reinforcing and complicated nature for liquidity and inflation. Inflation affects resource allocations and redistribution of incomes and also obscures economic outlooks. Analysis of Iranian economic and business environment and its monetary and inflationary condition entails analysis of how some of key variables of the economy e.g. "liquidity", "GDP growth rate", "GDP growth rate without oil", "inflation" and "USD to rial ratio" have been changed since increased oil price in 1973 so far. Continuous growth of the liquidity during the past years has generated an instable monetary space for the economy of Iran. Also, price index continuously is being increased drastically. It suggests that the nominal values of price of products and services have been increased over time. The USD to rial ratio is an index by which the necessity to change the national currency is determined. These considerations show that our nominal variables have been enhanced considerably which in turn either has complicated transactions and calculations or has influenced the psychological atmosphere of the business environment.

Removing three zeros from the national currency has been posed by Iranian statesmen several times in recent years, but it has been put on the back burner for different reasons. At the present time, Iranian economy does not experience the condition in which other country changed their currency. At the same time, many nominal variables of the country and general level of prices have been grown during the three last decades. Accordingly, recording numbers and calculations has become more difficult in comparison with the last years. Anyway, large nominal numbers reinforce dynamicity of the inflation. Although, Iran has not experienced any hyperinflation during past years, permanent two-digit inflations, 15-30%, have been annoying all the time. Problems caused by eradication and reprinting bills and their innate costs are considerable as well. According to the classical theory of economics, if money is neutral in the economy and the *relevant containers law* is actually and completely true in the society, then removing three zeros from the national currency will not bring about any problem. The sole problem of the mentioned condition would be printing and minting fractional moneys and their associated costs which would be ended to simplification of calculations and accounting records. Hence, it decreases safety of the economic environment and adjusts the relation between national currency and foreign currency to fractional numbers which apparently was considered as an enhancement for the national currency; however, money neutrality subject is not a comprehensive issue in the developed countries and it is true somehow; however, the economic condition of Iran is completely different. During the two past decades, Iran has experienced economic mitigation plans which were failed because of lack of prerequisites, coordination, necessary preparations, and disregarding a chronological sequence. Monetary passivity aspects of money were boosted by high flux and growth of the liquidity, so, passive money to active money rate was elevated. Monetary passivity has made difficult management of both money and inflation in economy. Therefore, even if Iranian economic authorities determine to find a solution to stabilize the Iranian economy, then using nominal monetary and inflationary harbors comes to be impossible. In other words, in the case of monetary passivity and high flexibility of cash flow, using money volume targeting is impossible for Iranian authorities and if they prefer to use the inflationary targeting then management of monetary adjustment will be nullified by the monetary passivity. The main root of the problem is hidden in lack of transparent budgetary performances, fiscal discipline, and an effective tax collection system, hence reiterative developments, modifications and changes are improper and instable in such space. As a result, price and nominal reforms are not only resulted in a desired outcome, but they will impose hefty costs on economy of the society unless a wise measure is taken to reform the above-mentioned affairs. Certainly, in this condition costs and damages caused by shock therapies are very higher than those caused by minifying monetary, nominal numbers and lopping zeros from the national currency; however, converting large money and nominal numbers into smaller ones has its own costs which would be troublesome, in turn.

Researchers who believe that removing some zeros from the national currency is completely safe in terms of distribution aspects and that it does not fuel the inflation, should suppose that there is not any desired pricing power in the society and prices are determined in deep and practical competitive markets. Also they should suppose that there is not any passive money in our monetary system and either money or liquidity in economy is active, manageable and controllable, as same as the countries that performed this policy successfully. When there is not a desirable pricing power in a society and the economic elements are not able to denominate prices but prices which are determined by the market mechanism and when there is not any monetary passivity, then none of nominal or actual changes are ended to improper change of prices and redistribution of incomes and re-allocation of resources. Therefore, removing three zeros from the national currency comes to be effective, but there is not any similar condition within Iran. There are several problems to conduct such operation. First, a great deal of our money is passive. Monetary passivity refers to a state in which the cash flow is increased or decreased because of disorders of the financial departments of the government, lack of transparency and supervision, lack of a proper taxation system, dependent budget of the government to oil incomes and unplanned decisions of the relevant authorities about increasing or decreasing money. Second, pricing power of economic elements is high and considerable in the Iranian economy which is explained by little (if any) deep and effective economic competitive markets there. Therefore, automatic mechanism of prices which performs the practical signaling is absent in the Iranian economy. Third, income rate of the cash flow is instable in the Iranian economy and shows flexibility drastically. Given the status quo suffering from a flexible cash flow, monetary policies may not be completely useful and hence monetary stabilization, as a preparative task for economic revolution, would be failed.

#### **Advantages of lopping zeros from the Iranian national currency**

1. Removing technical and operative problems caused by using money;
2. Decreasing costs of eradication and publication of banknotes;
3. Decreasing costs of the banking system and trading costs;
4. Facilitating and decreasing depreciation of ATMs ;
5. Easy and convenient transportation of money and decreasing risks due to transportation banknotes on a large scale;
6. Impeding influence of foreign currencies on domestic economy;
7. Paving the grounds for decreasing inflation rate in long term;
8. Increasing public confidence to the national currency and economy in response to increased value of money;
9. Simplifying banking affairs for people;
10. Increasing foreign investments in the country;
11. Removing technical and operative problems caused by application of large numbers in both financial statements and calculating machines;
12. Decreasing bill flow per capita and hence saving costs of publishing bills on a large scale;
13. Declining inflationary expectations across the society.

#### **Disadvantages of lopping zeros from Iranian national currency**

1. Removing zeros from the national currency is led to occurrence of inflationary effects on some economic activities; it has psychological effects on the society as well;
2. Wasting people's time in long queues of banks for changing their bills;
3. Costs caused by collecting and eradicating old bills and printing and publishing new ones;
4. The potential disorder between old and new data in information dissemination offices and bases as well as financial statements;
5. Inability to change all bills in the predefined time frame;
6. Public confusion during monetary dichotomy period;
7. Minting counterfeit monies because of people's unawareness during changing currency units.

#### **Tips about removing zeros from currency**

- Removing zeros of the national currency only for controlling the inflation rate, it will impose inflationary effects on the economy in long term. It is why some countries do not slash zeros from their currency in spite of a high inflation rate.
- Of course removing zeros from the national currency is not a bad thing but it depends on reason and time of using this operation in the economy of any country.
- Independence of the central bank from the government is a key point which must be considered upon slashing zeros from the national currency.



- Removing zeros from the national currency is accompanied with numerous economic and political consequences.
- Before any activity, the government has to inform the public opinion about economic effects caused by removing zeros from the national currency.
- It is important to know that this change should meet both short and long term goals of a certain plan. Likewise, role and relation between economic growth (strength of GDP) and economic supports such as gold, currency, energy reservoirs etc. should be treated particularly as the critical factors on power and value of the national currency.
- The necessary considerations about minor units of better money are essential for eliminating inflationary effects caused by increased prices.
- Concerns of exporters should be imagined too, because increasing reasonably the value of the national currency will decrease the competitiveness of exporters in the world markets and it will lead to falling exports; so by designing special support packages it can be controlled, if necessary.

#### **Prerequisites of cutting zeros from the Iranian national currency**

The following proceedings are necessary before implementing the zero deleting policy across the country, some of which are prerequisites of many reformatory activities:

1. Developing a competitive space and deepening markets;
2. Limiting pricing power of the economic elements;
3. Applying discipline and transparency in the governmental budget and its fiscal demeanor;
4. Reforming taxation system and decreasing economic and budgetary dependency of the country to oil incomes;
5. Restricting non-productive activities and stabilizing relevant and irrelevant transactions to GDP ratio;
6. Developing a price reform management system and controlling price changes upon shock therapy;
7. Monitoring credit awarding and reimbursing the arrears;
8. Monetary discipline.

These proceedings are categorized as prerequisites for many reformative measures and prosperity of each reformation depends on its appropriate application.

#### **CONCLUSION AND PROPOSITION**

Regarding experience of other countries to delete zeros from their national currency and regarding economic goals of Iran by 2025 and also given the current low position and value of Iranian rial in the routine trades, some people believe that Iran has to lop some zeros from its currency while performs other measures for economic development and scientific studies and researches, so, finally the main position of its national currency in the international markets will be saved along with decreasing inflation and increasing foreign investments.

Economic situation of the country should be scrutinized before any measure to remove zeros from the national currency. Please keep in mind that removing zeros without economic reforms would not be effective to suppress inflation and in most countries zero removing policy has been implemented subsequent to implementation of economic stabilizing policies. Anyway, it will be conducted after preparing the necessary executive infrastructures of the plan including the setting a coefficient to convert the new currency into small units of money, how to price micro products, considering apparently non-economic indices e.g. psychological dimensions of this procedure, people's ability to use the new money and the public enthusiasm. Accordingly, before any task, the public opinion should be prepared in order to be accustomed with the new condition and money. In other words, the best way to guarantee success of this policy is pursuing transparency and giving opportunity to people to be adapted with the new condition and money. Thus, role of media, establishing the issue in schools and universities, testing the plan on micro scales before its formal implementation are very important in this process.

Others believe that countries that have removed zeros of their national currencies in an unsafe and instable condition without applying political and stabilizing reforms have failed to achieve their desirable results, but countries that paved the grounds for such changes after using reformative and stabilizing measures and that has used this policy as a complementary and final measure to send a signal to both market and people has reached their purpose. In the case of proper application of principle of the proportionality in Iran and a stable monetary and pricing trend, it would be resulted in the desired goals, but at the current situation it only fuels inflation and intensifies disproportions. Deleting zeros from the national currency should be conducted after conducting critical stabilizing and reformative proceedings, so, intense supervision and control are vital upon implementation of this policy.

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