Development Finance by Money Creation, Instead of Foreign Debt or Saving

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A New Paradigm for Development Economics

Abstract:
Development Economics says that financing development for developing countries (DCs) must be through available saving, obtained by abstaining from present consumption. Or, the DC must borrow from other countries or from foreign loans. But several studies find that in the long run, foreign financing will lower economic growth compared to DCs with self-financing. There appeared many paradoxes on free flow of capital: Lucas, Capital, and the Allocation Paradoxes. A result comes out that 90 percent of capital in DCs were self-financed. The successful DCs have positive current account (CA) and positive correlation coefficient (CC) with economic growth, but negative CC for unsuccessful DCs and advanced countries. Schumpeter proposed domestic bank money creation for development financing which liberate DCs from the foreign debt overhang, negative CA. Germany and China were two successful countries in employing money creation for their development. This study elaborates the potential positive and negative effects of using domestic bank money creation. This should be an eye-opener for the negative effects of foreign debt for developing countries, including Indonesia.

Key words: bank; current-account; debt; development; growth; foreign-finance; money-creation; paradox; saving

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Preface

This book is a result of a critical thinking on the why many developing countries (DCs) are indebted to foreign countries or international financial institutions. After reading a book written by Prof. Maurice Allais, a Nobel Laureate in Economics (1988): “L'Impot Sur le Capital et la Reforme Monetaire”, the author convinced that the present monetary system is not just. The issue of the “seigniorage”, as an “unearned income” according to Allais, is distortionary. JK Galbraith (1983) wrote in his pocket book: “The study of money, above all other fields in economics, is the one in which complexity is used to disguise truth, not to reveal it. … Money, in contrast, is equally important to those who have it and those who don’t.” But what is startling is an expression by Prof. Samuelson, “a highly respected economist, endorsed the idea that money knowledge belongs to “a priestly caste” economists (Black, 2015)”. Further Black stated that “Samuelson is vituperative about the folly of allowing the public to learn about the true nature of money”. Samuelson is a Nobel Laureate in economics (1970).

All these leads to believe that the knowledge of money is intentionally hidden to the public, including and especially to the people of DCs. Money is a public good, should be created and managed by the public authority. When a country borrows from abroad, the borrowed foreign money would be kept at the Central Bank (CB), not circulating in the borrowing economy. Then the CB issues an equivalent sum of domestic currency, in order to be used locally. Why not directly be issued by the borrowing country CB?

It triggers an effort to learn how developed countries financing their development. The author finds that France and Germany embarked on industrialization by creating the purchasing power in the 19th century, did not borrow from foreign countries or lending international institutions. After the WW II, Germany and China were practicing the same way, creating money for reconstructing Germany. China also used the same methods to embark on massive economic development by “forced saving”, so that Bernanke in 2008 stated that the country had a “glut” of savings.

Why other DCs cannot follow the same way? It is the reason to publish this book, a shorter English version of an Indonesian language book, with the same front cover picture. The PPT version was presented at the international conference by Alliance For Just Money (AFJM) under the auspices of AMI (American Monetary Institute), October 8th 2002. The author has a sincere hope, that the thinking proposed in this
book could help billions of people in developing countries to improve their lives. Now, the money creation, (1-RR)x100\% of circulating money, is dominated by the private commercial banking (including the state banking enterprises). As it has been stated by Allais, the seigniorage revenue from money creation goes to the coffers of the commercial banks, private interest. It seems that the public interest is left to the mercy of the fiscal revenues, while the “unearned income” from the money creation is directed to the private sectors. This is a kind of injustice. It leads to the continuous rise in inequality of income, either within every country and between countries in the world. At the same time there is also an increase or latency in poverty, which is proven by the still high or the rise in the Gini coefficient.

The nationalization of the money creation, as it is wanted by many economists and proposed by the AFJM, could support to achieve the 17 goals of the UN SDG. The IMF published the information, that since 1970, the era of the Bretton Woods collapse, there have been 145 banking crashes, 204 monetary collapses, 72 sovereign debt crises. While before, between 1637 and 1929, there were 48 massive meltdowns. Hence, the world needs to reform its monetary system, and one of that is the nationalization of the money creation. This is the way also, to enlighten the fiscal burden of the developing countries.

The author thanks the publisher for publishing this small book. But any errors and mistakes are of the author’s responsibility.
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0. Introduction

In development economics textbooks, domestic saving is said to be the main source of development finance. If not, it should be imported from foreign countries. Most of the authors subscribe to the same ideas, except the previous Joseph A. Schumpeter, which in 1911 published a book on development economics in German language, proposing the use of bank money creation. Mainstream concept says, if the developing countries import saving surplus from abroad, it will bring out a *win-win solution* for all, since the investment return for countries with high capital intensity is lower than in developing countries (DCs) with low capital intensity. Most textbooks on development economics neglect the bank money creation in fulfilling the fund needs for DCs.

The acceptance of good ideas is as important as the rejection of bad ideas\(^1\) leading to the DCs success or their failure. So is the case in 1960s, where the Harrod-Domar theory stresses the accumulation of the physical capital financed by saving suitable for industrial countries, were proposed to be used in the DCs. This is an example of the lack in knowledge and good ideas, either *tacit* or formal ones. Schumpeter’s concept was contradicting the received ideas on how to finance the DCs development programs. His proposal is banking money creation theory out of nothing. The general public is not aware of this idea. The “new” awareness could be a multiple rediscovery of a lost principle, since MacLeod had written a banking book in 1866 with similar concept, money creation for investment. Later it is found that the similar idea had been proposed by Jeremy Bentham in early 1800 before publishing his book in 1843. It can be designated the Schumpeter idea as an "ex-post saving" while the old idea is an "ex-ante saving". Albert Hahn, a banker-academician, published a banking book in 1920 proposing similar idea to the first. Schumpeter had central position in this intricated development-monetary issue. But in this small book, the discussion of the issue will be mostly referred to the Schumpeterian ideas.

\(^1\) Gerald M. Meier in “Frontier of Development”, WB, 2001
Domestic source of finance is preferred to foreign finance in some respects. The latest report on programs performances financed by foreign debt, reveals negative results. From studies, the rate of economic growth for developing countries that import foreign capital development finance is lower than those that rely on self-financing through domestic fund. This is in contradiction to what is predicted by neo-classical theory. By considering developing countries’ debt-burden due to foreign finance for their development programs, the result of the studies are justifiable. Other deficiency of the foreign finance is its negative impact on domestic currency appreciation, making export more expensive and facilitate import. But money creation must be subject to joint decision between the government and the central bank, where its independence should not be used to block the money creation\(^2\).

**1.Methodological Approach**

The methodological approach of the article is a critical study of the development economics on how to finance economic development programs. The author is of the opinion that this aspect is the least studied issue, while financing is one of the main handicaps for the developing countries. Their backward economic development leads to their low financial capacity from taxes and savings of population, while the economic textbook stresses the primacy of saving for development. Alas, the theory of money creation out of nothing is still less recognized and then neglected, which is more suitable to the above-mentioned study, that domestic self-sufficient development financing would entail higher economic growth compared to foreign financing. Money creation could be a solution to the lack of development finance in developing countries.

This lack of fund is the main handicap of their endeavor to catch-up in the economic, social, and technological progress, either in building physical infrastructures or human capital, because all these require a lot of funds. The study is focused on several popular published studies on developing countries and seeks its potential contribution to advance the DCs development. What are the lessons for developing countries for catching-up the development progress and what were the failure factors in the past? By consulting the available books on development economics, the previous recipe is to be found: development must be financed by savings, which should be preceded by a reduction in present consumption or if not by borrowing the foreign loans.

\(^2\) It will be treated later in this book.
2. Development Economics

Development economics is mostly concerned with the economies of LDCs (less developing countries), where its industries are still in its infancy, and significant part of its population live in rural areas, and the economy is still dominated by agriculture, and all infrastructures are substantially lacking. Several wellknown economists are of wider perspective, namely Stiglitz (1999), saying: “We now see economic development as less like the construction business and more like education in the broad and comprehensive sense that covers knowledge, institutions and culture”. It is similar to Romer’s (1993): “In a world with physical limits, it is the discoveries of big ideas, together with the discovery of millions of little ideas, that make persistent economic growth possible. Ideas are the instructions that let us combine limited physical resources in arrangements that are ever more valuable.” Romer has a plus value by raising the issue of physical limit of the world, which is now a global concern due to limitation of the world physical capital, either in the natural resources endowments and in its absorption capacity for waste and pollution, like CO₂ emission, the main cause of the present global warming.

In fact, most of developing countries are more preoccupied with the construction of physical capitals, namely infrastructures. But the perspectives from Stiglitz and Romer give new lights on development, because after construction or even in parallel with that, it could be appropriate to begin the subsequent development steps: finding the project ideas for new products or new development processes, in conjunction to the Schumpeter’s innovations ideas. All should supports the future industrialization process in: agri-business, manufacturing, services. The ideas from the two mentioned economists, could enlarge the required activities for development process, in addition to what are needed by the phrase: “laissez faire, laissez passez, donnez les moyens de passer”, meaning after the freedom to produce and to trade, the government is requested to supply the necessary infrastructures, namely roads, irrigation, electricity, telephone, etc. The last demand does not ask for the freedom to build infrastructures, but asking the government to provide them. Other than those infrastructures as are commonly perceived, there are now non-physical infrastructure, namely human capital formation, research, and so on that could entail a higher productivity of the economy. All extra activities to the usually perceived ones, need more higher amount of funds, producing non-consumable products. But the results could be in the new technology
as production processes, new higher quality products, cheaper compared to the old
or replaced products. Hence, invention and innovation capacity enabled by either R &
D activities, are another costly non-physical infrastructure. It is now concluded that
innovation and invention are a prerequisite to exit from the middle-income trap (MIT).
Indonesia is now making a great effort to evade the MIT.

In his book on economic backwardness, Gerschenkron\(^3\) divides the countries of
Europe then into three groups, the "advanced," the "moderately backward," and the
"very backward," and he considers that their development patterns take the form of a
series of stage constructs. Gerschenkron considers England as the advanced country
at the time he refers, Germany as the moderately backward, and the very backward
is Russia. He notes that Germany at that time was dependent on domestic bank for
their development\(^4\), in the form of Universal Banks. Between 1905 and WWI, Russia
was dependent on bank, but in other periods it dependent on government. Later the
Uncatad case study on German and China, indicated the consistency of the German
reliance on banks as a financial source.

Foreign direct investment (FDI) may bring benefits, but it may also be overly
capital intensive, harming host country labor surplus, or multinationals may present
costs that increase over time so that the cost-benefit ratio would change unfavorably.
Hence the right choice of a policy should be contextually appropriate. It will be clearly
shown from the following Schumpeter’s concept presentation that development is the
implementation of new combinations of ideas, consisting of five clusters. The first two
clusters are strongly related to technological state of the arts, and the next three could
be related to social science and engineering. It is not out of context to conclude that
this approach is dominated by the entrepreneurship way of thinking. The hard and the
soft technology of production are used interactively and complementarily, which could
be conducted substitutively. Romer’s emphasis on the physical limit of the world
should be a deep concern for the present planning on production system, both
microeconomically or macroeconomically. The global warming threat has to be a
fundamental concern for all economies, either for developing or the developed
countries. It is the importance of new ideas from both Stiglitz and Romer concepts,

\(^4\) Alexander Gerschenkron (1962): Why is not the capital as it is being accumuluated also invested in industrial
ventures, so that industry grows pari passu with the accumulation of capital. p.34
where the roles of science are stressed. Newness could be case-specific, which could be different for developing and developed countries. A very vital issue to mention, even though not treated here is the Circular Economy (CE)\(^5\) concept, which stresses the recoveries of raw materials from the waste products is one of the key strategies for sustainability of our planet. This idea is important to the world with limited capacity of Romer before. Now, the CE theory and the Sustainable Money\(^6\) concept should be integrated with the development economics theory. The issue on planet capacity limit and global warming has become unavoidable today. A new developed concepts is the integration of the local-money concept with biochar\(^7\) concept.

Schumpeter defines development as the carrying out of new combinations\(^8\), which is interpreted as innovation, consisting of five groups:

1) The introduction of new goods.
2) The introduction of new process of production.
3) The opening of new market.
4) The conquest of new source of supply or raw materials or half-manufactured goods.
5) The carrying out of the new organization of any industry.

He further differentiates between invention and innovation. Invention is mostly related to new ideas, which could be a base for new innovation. Invention is mostly produced by basic research either in the universities or in the research centers.

### 3. The Paradox of Thrift

Keynes is one of the big economists who considers one of the potential negative effects of saving, by expressing it as a *paradox of thrift*. If a nation saves a certain share of its GDP, firstly there would be an increase in saving, but unfortunately there would be a reduction in GDP. This would be again followed by saving reduction and then in GDP. It could happen in a chain reaction. It will stop at some point, but there would a development retardation compared if the money creation is conducted. Hence the proposed mode of development finance, which sees saving as the most vital and

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\(^7\) Biochar is a process to produce a charcoal like product, that could be used to absorb CO\(_2\) from the atmosphere, functioning as fertilizer. One of the positive impacts of local currency is to reduce the transport requirements of the local product when they are consumed locally, hence reducing CO\(_2\) due to transportation.
reliable source of development finance is contradictory to the paradox of thrift. The following figure shows graphically how the contradiction could materialize.

Hence the popular concept in development economics or in public discussion about saving is generally not taking this paradox into account properly. A saving policy which is true for an individual, is not automatically true for a society, a country and then for a nation. What is more an economic policy for a country in recession, or in a high unemployment phase, the idea of saving should seriously considers this issue. In an analogue way, a tax policy in a country, which could experience a recession or an unemployment problem, should again considers this issue analogically. It will be shown later, which policy is appropriate for the developing countries, which are lacking in savings.

Figure 1. Paradox of thrift

4. Development and its Financing

As a matter of fact, development financing is one of the least treated issues in this field. Samuelson implicitly assumes that saving should be available in the country concerned in terms of GDP percentage\(^9\) before embarking on development effort. This is the way of thinking that has been used by other authors like Harrod-Domar, and so on, but especially Debraj Ray\(^10\), who wrote in his textbook: “In its simplest terms, economic growth is the result of abstention from current consumption.” This is also the

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idea from Adam Smith through Marx\textsuperscript{11}. The concept Debraj Ray has been pushed to an extreme, taking the isolated individual point of view.

The vital role of saving in economic development is raised by Harrod through its equilibrium formula: $g = \frac{s}{k}$, where $g$ is the economic growth, $s$ is the ratio of saving to GDP, and $k$ is the capital to output ratio. This has been incorrectly interpreted as a causal relation, and made as a foundation of a series of models stressing the role of savings and capital stocks in development. The USSR achieved high economic growth by squeezing consumption and investing massively in heavy industries. This policy is suitable for USSR, a dictatorial country. But it seems that such policy is not appropriate and sustainable for the whole economic development. Foreign-aid played a vital role in these models that supplements the domestic savings. Foreign debt is different from foreign-aid, for foreign debt has to be repaid, both principal and interest. Hence there are many ways to go, but only a few are electable.

This is an attitude hold by Prasad et al (2007)\textsuperscript{12}, Aizenman et al (2004), Gourinchas et al (2007), that saving plays vital role for development economics. The three groups of authors are the most referenced ones in this article in addition to Schumpeter. The three groups of writers published their articles after the East Asian crisis of 1997. And no allusion made to the vital role played by monetary creation on the countries’ needs on development, except for households and business. Hayami quoted Schumpeter in his book, that the source of fund for development investment or for innovation could be taken from bank as money creation. Also, Mazzucato and Wray (2015) followed the same concept. Alas, the concept has the same fate, neglected by either the main economic textbook on development or economic planners in developing countries. Surprisingly, it is even put aside by the international institutions such as the World Bank and the IMF. In this publication, the role of money creation for development finance is proposed as a new vital alternative to foreign debt or saving by referring to Schumpeter old literatures, indirectly previously revealed by MacLeod in 1866 and then Hahn works, later the German and China’s experiences after the World War II. Later almost at the end of this publication, it will be shown, that it has been proposed by Bentham (1802, 1843), as was shown by Eckaus in 2013.

\textsuperscript{11} Hayami and Godo (2005): Development Economics, p. 186 No mention of innovation and technology.

Before the article of Feldstein and Horioka in 1979, there have been two views on international capital mobility: perfect capital mobility and hindered capital mobility due to portfolio preferences and institutional rigidities. After the adoption of the floating exchange rate in 1973 there was a rising inter-country capital flows. In the case of perfect capital mobility, it was believed that there would be little or no relation between the amount of saving in that country with domestic investment. The article of Feldstein and Horioka reported a startling result, beyond expectation: “International differences in the domestic saving rates among major industrial countries have resulted in almost equal corresponding differences in domestic investment rates.” This is a concept, where the source of fund should be from domestic or self-sufficient. Initially free-flow of capital was expected to automatically restore the external balance of any economy, leaving monetary policy free to pursue domestic objectives, without the external constraint, fluctuation and instability. It did not happen that way.

The development process needs financing, sometimes could not be enough if it were taken out from national saving. Waiting for domestic saving availability would be time consuming and at the same time will reduce the people purchasing power at the same amount to saving, which would entail a reduction in disposable income, product sales, followed by GDP decline (the paradox of thrift, figure 1). It would entail a prolongement of the waiting time for saving sufficiency to finance development due to the chain reaction from the disposable income drop, reducing consumption, slowing economic growth, mimicking the vicious circle process. It is clear since consumption is a vital component of GDP, and is also a source of demand for other industries. As will be shown, foreign debt in valuta will cost the GDP and economic growth with such and such percentage point, due to debt and interest repayment. It is neglected in the literature and development economic textbooks, leading to incomplete analysis of development, where foreign debt could exacerbate financial crisis. Most of the literature prone the foreign loans to surmount the lack of DCs in saving. It was said that foreign loan brings benefits to the DCs and the foreign countries or international financial institution as well, claiming the win-win solution to the lack of DCs’ saving. But curiously ample availability of saving in East Asian countries in the 1997-98, did not prevent those countries to fall into the Asian Financial crisis in 1997. Hence it needs an appropriate policy for monetary and financial system. The following section

13 World Bank (2000): A Symposium of Saving in Developing Countries.
will treat this issue. It could be shocking to some readers, because it is against the general wisdom, especially by the Central Banks Independence concept.

5. Money Creation for Financing Development

As mentioned before, for solving the financing problem Schumpeter proposed an “out of the box” concept as will be shown by the following quotation from his book:

“... Hence, in such economic system there could be no great reservoirs of free purchasing power, to which one who wished to form new combinations could turn- ..... Even though the conventional answer to our question is not obviously absurd, yet there is another method of obtaining money for this purpose,....... This method of obtaining money is the creation of purchasing power by banks. ..... It is always a question, not of transforming purchasing power which already exist in someone’s possession, but of the creation of new purchasing power out of nothing.” (italic+bold from the writer).

This is a financing innovation compared to the present dominant concept, where development funding mostly rely on domestic saving or by borrowing foreign country saving surpluses. It is interesting to pay attention to the phrase “not of transforming purchasing power which already exist in someone’s possession” which is the rule of the game for “the bank as an intermediary institution”. If it were so, then it would be like saving, taking out from the existing purchasing power for consumption. It is here the “magic power” of the bank money creation out of nothing, becoming new source for capital creation, real thing. But it must be within a sound monetary policy context.

The proposal by Schumpeter was also similar to what MacLeod14 wrote in his book as the following quotation shows:

The express purpose of these banks was to create credit, incorporeal entities created out of nothing, for a transitory existence, and then, having performed their functions, vanishing again into the nothing from whence they came. And has not this credit been CAPITAL? (italic + bold from the writer).

It has existed a long time ago, but without any echo in practices and development books.

A meaningful short phrase in the quoted MacLeod book is: for a transitory existence. It means that the credit so created will not last in circulation for ever. If the credit, incorporeal entities, has conducted its function, by enabling to build industries, infrastructures, producing goods, then it will be back into bank, when the entrepreneur pays back his loan, either once for all, or by instalment. Initially the credit will raise the

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14 MacLeod, H.D.(1866): p 138
amount of currency in circulation when it was created out of nothing, and then it will be taken out of circulation, when it is repaid into banks (reflux). How long is a transitory existence? If the credit was used for long-term investment or capital goods, then the entrepreneur will start to pay back his/her debt in the form of installment after goods production and sales. In this case it could not be repaid wholly once, but in a series of payment. So the phrase “for a transitory existence” could not mean very short time from loan issue (after the creation of money out of nothing) to one fixed point in time scale. The reentry time of the created money back to bank must take time.

It is seen here that the Schumpeter’s money creation proposal for development finance had been preceded by MacLeod concept 45 years before, but then Albert Hahn a Schumpeter follower, publishing a banking book in 1920. Recently it is followed by other publications from Mazzucato et al, UNCTAD and Hayami and so on.

So it is really surprising, why the idea was not spreaded and employed widely in the world. Since the creation of money out of nothing is not a new phenomenon in banking business, by which development could be conducted earlier than if it should depend on saving. The money creation theory by individual bank was recently academically popularized and proven with field experiment by Richard Werner (2014, in Elsevier, pp. 1-19). Before, the creation of money was assumed to be done collectively by a network operation of banks based on the reserve ratio (RR) or popularly known as the money multiplier concept. This method is extensively explained by Samuelson in his widely used economic textbook (1964, pp 285-327). His popular reserve ratio of 10 percent, has been widely accepted in the academic circle, especially in the US. Schumpeter, MacLeod and Hahn did not mention the collective creation of money through bank network operation. But from the three economists who supports money creation, only Schumpeter propose it as a source of development finance while MacLeod and Hahn treat that as a pure banking issue.

Nonetheless, both reserve ratio and money multiplier from Samuelson book, as well as money creation from individual banks, are based on a public implicit assumption that all money in circulation is distributed by private banks, but created by the Central Banks. The general publics are of the opinion that all money is provided ("printed") by the Central Bank. This is a distortion of the fact in banking, where, it is the commercial banks who print most of the currency in circulation. In most cases the commercial banks are privately owned, or at least state-owned commercial banks.
In fact as it is in its 2014 publication, the Bank of England stated that 97 percent of money in circulation in England is created by the private banks (McLeay, et al, 2014). This is supported by recent article from IMF. It happens all over the world, as well as in Indonesia. Only a small number of people is aware that most of the money creation is out of nothing, at the moment of credit award, balanced by the same amount of deposits creation. Similar expression is stated as the credit creation out of nothing, where the word money is replaced by credit. It is difficult to change such deep rooted public belief and attitude, where money is assumed wholly created by central banks or government.

On one side, the popular concept of banking as an intermediary institution is really not representing the reality. The concept of money multiplier or the reserve ratio is incompatible with the meaning of intermediary institution of the commercial banks. Intermediation means that the money lent by bank to borrower should be taken out of the existing cash in bank's vault. The banks need of creating money or creating credit out of nothing, contradicts the meaning of intermediation: taking money from a person or a group of person (the surplus group), then loaning the money to one or group of person (deficit group). But, surprisingly the false concept is continuously and widely used, both in the textbooks and even in the circulating laws on banking, namely the Law No. 9 in 1992 on Banking in Indonesia. The wide misuse of the concept leads to vast misperception of money and bank. It is like the medieval public difficulty to accept the Galileo Galilei’s cosmos conviction.

There is an interrelation between the bank as intermediary institution and the condition that the developing country should firstly have saving before embarking on development activities. The prerequisites for banks to be an intermediary institution in order to be authorized to lend credit is quite similar to the conditions for a country to have a ready amount of saving for development financing. Both, must be preceded by the availability of cash or saving before lending and development. Now it is known that the two conditions are not absolutely required, since banks could create money out of nothing, and the created money could be used to buy capital for enterprises or to fund development programs of the DCs. The condition of saving availability puts the country development on hold or they have to be indebted to the foreign country, which is in fact avoidable. What a big loss.

The wrong theory entails unnecessary development delay for developing country, despite the correct idea has been proposed by many economists more than 100 years
or more before. **What a big loss for the majority of people, billions, in the world, living in developing countries.** This is at the same time a big loss for the world as a whole even though only directly implicating the South-World countries. The negative result of the existing development economic theory of going indebted for the EMDEs in foreign currencies, could be considered a “**tragedy of the misinformation**” or “**the tragedy of the wrong development finance theory**”.

Based on the many studies, borrowing foreign finance for development in DCs would imply a lower economic growth compared to self-financing countries. Indebted in foreign exchange, would be subject to **trilemma of international finance**. Economic scientists have socially failed to discover that good ideas for development. They failed in their **noblesse oblige**, to discover the domestic bank money creation to substitute for foreign loans or borrowing the saving surplus from foreign country or international finance institution. Here it requires a critical attitude to the existing theories. But why the free flow of knowledge does not work while the good idea has been existing elsewhere?

In order to give a factual application of the idea of money creation for development finance, the following real experiences in Germany and China will be presented. As it has been referred to by Gerschenkron before, German societies did habitually use banks in their economic life, even when they were still in the phase of “moderately backward” country as Gerschenkron designated them. An interesting question may arise, why Germany was one of the first country to employ the ideas of “money creation” to finance economic development? And why is it so late for knowledge transfer to other present developing countries in the world?

A primary shallow explanation could be attributed to the fact that the Schumpeter’s development economics book is in German language. Also, the book of Albert Hahn is in German language. This is similar to the Wicksell monetary theory, which in spite of its success in Sweden in 1930, it fell into the dark. What accounts for the loss of Wicksell’s theory for so long? **People says a large part is attributable to accidents of geography, language, and intellectual history.** Without any support from the scientific research, the answer to the neglect of Wicksell’s theory is akin to Schumpeter’s. What a bad luck for developing countries.

It is interesting to pay attention on the following quotation from Black (2015) about an effort to hide the knowledge of money from the public: “**Notice also the depth of the disdain the priestly caste of economists has for democracy. Samuelson is vituperative**
about the folly of allowing the public to learn about the true nature of money— it will cause not just “chaos,” but “anarchistic chaos.” Normal humans cannot be trusted with the sacred knowledge of money because they lack the discipline of economists”. Can anyone believes this? It is unbelievable, that a highly respected economist, a Nobel laureate, made such a statement. But the waves of privatization in the global economy is raging due to the impacts of the economic and the military power of the United States, and due to the dominant role of the DCs economists educated in the US. In addition to that, the World Bank and the IMF play a global role in financial matters.

6. A Tale of Two Countries in the 20th century.

In the UNCTAD publication of 2009, it was written that Germany was a primary country as an example, together with China, which started economic development without firstly having enough saving. The saving level of the two countries in that publication was presented in the next picture. Moreover, they did not also import saving surplus from foreign countries or from international financial institution, as was advised by the mainstream’s theory. Here it come to the idea that for starting a development project, the required fund could be taken out from domestic banks by conducting money creation. This is an old concept as it was written above, but unfortunately is hidden in the dark.

Beside information in the next graph on Germany and China, further complementary information and data contained in the publication are also presented as follows: Within 10 years from 1950 to 1960, per capita income in Germany relative to that in the United States rose from 41 to 72 per cent which implied an almost doubling of German real per-capita GDP in only a decade. Next, investment-to-GDP ratio rose from 20 to 25 per-cent within a short-period of 1951 to 1954, and hovered between 23 and 25 per cent until the late 1960s. The savings rate, on the other hand, started from just 4 per cent of disposable income in 1950 (it translates into a lower share of GDP because disposable income is a part of GDP), a steady increase in the 1950s that lasted until the mid-1970s, but peaked several years after the investment-to-GDP ratio had begun to decline. Real wages increased stronger than household savings, accompanied by a satisfactory rise in savings, but leaving ample room for buoyant consumption growth. This could accelerate the process of economic development in the country due to a
catch-up process in savings. (The Marshal Plan Aid has a limited sum; for 4 years, West Germany received $1.2973 B\textsuperscript{15}, 1.5 % of GDP).

As it was presented in other part of this short literature study, the use of banks as a source of fund for economic development, has been practiced by German (and also France) at the beginning of their industrialization in the 19\textsuperscript{th} century. By visiting the Bundesbank report for 2021, one can find that the national or local governments of German obtained loans from the banks, which is different from the regulations of the ECB (European Central Bank). This should be a lesson for other countries, especially the DCs like Indonesia, which prohibits the awarding of credit to the government.

**Figure 1. The Cases of Germany and China**

![Graphs showing investment and household saving in Germany and China](image)

In China, from 1985 to the early 1990s the ratio of investment-to-GDP has even been trending downward while the household savings rate has been increasing. But less than the investment magnitude. The steep rise in investment ratio to 40 per cent in 1993 was followed by an increase in the household saving rate to 33.8 per cent in 1994 before both variables trended a little downwards again. As in the case for Germany, consumption in China grew vigorously over the period: The data from the National Statistics Office does not show any year after 1990 in which real household consumption grew by less than 4.5 per cent.

One important fact from the two countries was that the growth spurt came about without a prior consumption restraint, as was required by the neoclassical theory. The

banking credit was the enablers of investment at the beginning of the process, then it would be complemented by savings, both from households and/or corporations. It is suspected that if the investment were from saving, the economic growth would be lower, and the above per capita income rise in Germany from 41 to 72 percent relative to the US within 1950 to 1960 would not be realizable. What happened in Germany was experienced by China, a doubling of income per capita within 10 years from 1990 to 2000. As it is previously stated, it happened without either consumption abstention or foreign debt.

Romer and Stiglitz said that underdevelopment could be the result of lacking in ideas, knowledge. Knowledge about money creation can be regarded as an example. Romer said that “discoveries of big ideas, together with the discovery of millions of little ideas, that make persistent economic growth possible”, while Stiglitz stressed that “education in the broad and comprehensive sense covering knowledge, institutions, and culture.” Money creation from bank is a real big idea. Alas it was in German language, which was not widely disseminated in the English-speaking world, specially to developing countries. But to our incomprehension, why the innovation and the entrepreneurship ideas in the same book was globally disseminated and widely acknowledged. It is suspected that the new idea on development finance could be neglected because it has not been known in the old development process, especially in the USA. Or could it be related to Samuelson, a highly respected economist in the USA, who proclaimed that “the knowledge of money belongs to a priestly caste economist”, an attitude that do not allow the general public to be involved in monetary affairs? He is afraid of not just “chaos,” but “anarchistic chaos”. What lies behind this attitude? Why is the general public not allowed to be involved in money affairs? It is worth to see another additional quotation. <The complexity of the subject has been intentionally exploited to keep its mysteries hidden. Henry Ford\textsuperscript{16} said it best: “It is well that the people of the nation do not understand our banking and monetary system, for if they did, I believe there would be a revolution before tomorrow morning.”>

Even though the context of the problem is different, but both shows the possibility of some intentional effort to hide the truth about money. And again, to the surprise of many of us, no books raise this issue in their publication. How could it happen, that at

the age of free flow of information, in addition to the vast and worldwide digital communication, such mysterious hiding is still occurring.

At the beginning of redevelopment phase in Germany and the first big development effort in China, it was independent on saving, which is visible in the graph, where the saving of each country was left untouched. It is clearly written in the UNCTAD report that the source of funds comes from money creation by the banks. It vindicates that the vital economic role of banks in Germany has been embedded in their economic culture. It could be reinforced by the Schumpeter development economic that was published in 1911, then supported by Albert Hahn book, helping to popularize the same topic: bank money creation. The two books are in the same language: German, which could have strong reinforcement on the society’s attitude to the relation of bank and development.

How is about China? Fortunately, a publication from MIT about saving in China was released in 2013\textsuperscript{17}, where the so-called money creation in this paper is included in the terminology of forced saving. The origin of this terminology was from Bentham, who published a book in 1843, earlier than the book of McLeod cited before. Bentham talked about forced saving, consisting of two instruments. The first is involuntary\textsuperscript{18} saving, including taxes for financing investment, and the second is the bank loans, financing investment. It could be heard different from our present understanding.

The information about China’s savings is startling. Between 2007 – 2009, the saving rates reached 50 percent of GDP; in the mid of 1990, it reached 40 percent, while before that, it reached 35-40 percent. These are spectacular achievements. But then, a question arises, did the data reflect the reality as it is normally understood, outside the understanding of Bentham?

The research Eckaus reveals that the stated saving is not a genuine saving, in the sense of saving as usually meant by the public or textbook, for example in the book written by Debraj Ray (1998). Here genuine saving is income minus expenditure. Both involuntary and forced saving from Bentham are not genuine savings. Eckaus verified both the product account and flow of funds data, and concluded that the forced saving meaning of Bentham did contributed to the so called saving in China’s investment budget. This has been concluded by the previously cited report from UNCTAD (2009).

\textsuperscript{17} Eckaus, Department of Economics, MIT in http://ssrn.com/abstract=2422988

\textsuperscript{18} For the writer tax is the public good cost of the production system. The cost of production of goods or services consists of private cost (the entrepreneur’s out of pocket money) and public goods cost.
One of the important issues related to the bank loans for investment is the potential inflation effects of the money creation of forced saving. In his *Treatise* Keynes initially acknowledge the positive role of the money creation or forced saving instrument. But later, Keynes neglect this idea in his famous book: *General Theory of Employment, Interest and Money*. But now, there have been a new trend that money creation could be a source of fund for the developing countries in providing many kinds of infrastructures, ranging from physical and social infrastructures.

For developing countries, where they have a vast uncultivated land, and which are lacking in infrastructures as the land road transport, irrigation, telecommunication, electricity, their construction would be followed by increased production within their influence area, namely in agriculture, handicraft, or small-scale industries. Hence there would be a quickly followed increase in the GDP of the country after the construction of the infrastructure. Of course, it is not meant that all the above lacking infrastructures would be constructed simultaneously. Hence there should be commensurate planning for the sequential infrastructure construction in the region concerned financed by the intended money creation.

From the other side, the development effort by constructing the infrastructures for the countries, it could be expected that the economies of scale would take effects in the production units within the influence are of the constructed infrastructure entailing a reduction of the production unit costs. Hence the possibility of an inflationary effects of the money creation could be temporary, and the government should be prepared to counter this potential negative impacts.

As a matter of fact, the financing of the capital goods has been an everyday fact in the production sector economy, which are mostly conducted by the private sector. By seeing that such loans are financed by the act of “creating money out of thin air”, meaning that the awarded credit by the commercial banks was not previously available in the bank, this kind of financing for the public infrastructures is just an analogy to that practice in the private productive sectors. The prerequisites that developing countries embarking on infrastructures construction to support industrialization process should be supported by available saving, is a distortion to the already practiced act in the private sector. The whole economy should be subject to the same rule of investment, private capital and public capital formation. It is warned here, in general the fund for development finance is not separated between private sector and public sector. The separation issue comes out when it touches the central bank independence.
7. More on Money Creation for Development Finance

In order to firstly have a simplistic but overall view from a basic formulation between saving, investment and current account, it is here presented a quite more elaborated macroeconomic relation: In a closed economy (no international trade) the equation is as follows:

\[ Y = C + S \]  \hspace{1cm} (1)

But in an open but simple economy, the relation is:

\[ Y = C + I + (Ex-Im) \]  \hspace{1cm} (2)

By writing \((Ex-Im) = CA\), the equation will be written as:

\[ Y = C + I + CA \]  \hspace{1cm} (3)

Hence, \(S\) in a closed economy will be replaced by \((I+CA)\) in an open economy, or will be written as:

\[ S = I+CA \]  \hspace{1cm} (4a)

or

\[ I = (S-CA) \]  \hspace{1cm} (4b)

All these equations are related to the concept that saving is the source of investment while the previous tale of Germany and China are not dependent on saving\(^{19}\).

Hence there should be a special discussion for the two mentioned countries, where investment is conducted without relying on the domestic saving or from importing the fund of foreign countries or institution. It is a factual case on development economics, where it is enabled by the bank’s “money creation out of nothing”, as was proposed by Schumpeter. Although it was only superficially treated, bank theory and operation were discussed by Schumpeter in his book. But money creation without transaction, namely if the money is just held under the mattres, or just kept in bank deposits, it will not raise the economic activities, then the GDP. Here it is supposed that the newly created money will be directly expended to buy everything needed to start the intended investment, realizing the five items of Schumpeter innovation.

It will not be inflationary if all the capital goods and merchandises are domestically produced with existing capacity and unemployed labor. Benjamin Franklin explained his experience in the colonized America that inflation was avoidable if the created

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\(^{19}\) Be careful on this terminology, because later there will be a discussion on the “forced saving” terminology, which could include the money from banks. It will be shown later that such an idea has been discussed by many previous authors, including the great economist, JM Keynes.
money would be to satisfy the real necessity for goods exchange in the market. Here comes other Schumpeterian concept, where the exchange of goods could be between present goods with the future goods. It is an exchange between present investment in capital goods, with future products of the investment, an exchange of present money with future money. As such, the project proposals should be based on a well prepared feasibility study, meaning that the products from investment project would be absorbed by the markets, either in the domestic or international market. So it should guarantee that the present money for investment is exchanged through an indirect supply chain with the future money from the product sales of the investment. There should be an appropriate product sequencing in the development programs.

This point should be considered different from MMT theory, which says that money could be printed at will to build projects because any debt could be paid back by money printing. To some extent, there is a compatibility between the MMT theory with the money creation of Schumpeter, but not to the extent of creating money at will.

By regarding the previous equation where new investment is enabled through the creation of new money, the national income equation should be reformulated. The newly created money should be expended for immediate investment. Development economic that takes benefits from money creation out of nothing, is really a new way out for the condition on the saving availability in commencing development in the developing countries. This does not deny the importance of saving in the economy, but just manipulating the required money for development. A revised formula for the above equations will be shown as follows:

\[ Y = C + S + MC_r (=I) + (Ex-Im) \]  

(5)

Where \( MC_r \) is the amount of money creation from banks, directly invested in the economy. Formula (5) states that saving \( S \) could be kept untouched, at least initially. Hence the possibility of money creation in the banks, enables earlier development in the developing economies compared to if saving is the only way to embark on the development process. Another benefit of totally using the money creation for the sake of investment, is that the consumption volume of the society will not decline due to saving requirements. In addition to that, the GDP will increase at the amount of the investment, meaning at the amount of \( MC_r \) (money creation).

There is no great thing in the previous formula, but its result has a great impact to those countries that are lacking in saving to start development efforts. But it should be
stressed that the investment programs have to be prepared carefully, conducting the required feasibility study in detail. Investment could be seen as a method of exchange between the present money with the future money, resulting in new product sale from the new investment enabled by the money creation.

One big positive impact enabled by using the money creation from banks for the investment requirement, is the avoidance of borrowing from foreign saving surplus countries, which will be in foreign money (threat of international finance trilemma). At present time the foreign currency debt is considered as a big problem for developing countries, especially at this turbulent period of the world economy. If crisis erupts, the exchange rate could be radically dropped as the case in the year 1997 for Indonesia. The ratio of Forex reserve to foreign debt at this time is just around 30 percent, which is quite vulnerable. Including the domestic debt (DD), total debt over GDP has been more than 60 percent, the debt limit by the laws. The exchange rate crisis in Indonesia in 1997 was the severest one in the ASEAN region. The country is endowed with an abundant natural resources. A question surges: Is it related to “the curse of natural resources” expression? Why a developed country with a significantly higher ratio of Debt/GDP could get the same growth rate with Indonesia for example? Later will be shown that there is an advanced country having around 120% debt ratio but has the same economic growth with Indonesia. The following sub-section will explain the method of calculating the debt cost of any loan.

Let us take that the ratio of a foreign debt to GDP (usually in GNI) is stated as $d$ percent, the maturity date is $n$ years, and the charged interest rate is $r$ percent. From the bonds formula, we have the value as $F$. Hence the amount of yearly payment until maturity date (principal and interest repayment) will be:

$$y = F \cdot d \cdot GDP$$

(6)

Assume the maturity date, $N$, is 20 years, interest rate, $r$, is 3.5 percent, and the ratio of debt to GDP, $d$ is 29 percent, then the calculated value of $F$ is equal to 0.070361, hence if $d$ is equal to 29 percent of GDP, the yearly payment of principal and interest will be 2 percent of GDP. It means that if the growth of the economy now with debt is 3 percent, the growth rate of the economy without debt would be 5 percent. The crushing power of the debt will be higher, the shorter the maturity date, the higher

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20 See figure 3 later on this issue.
the interest rate, and the higher the ratio of debt to GDP. From literature of bonds the value of F could be derived as:

$$F = \left[ \frac{r(1+r)^N}{(1+r)^N - 1} \right]$$  \hspace{1cm} (7)$$

So that the yearly payment of principal instalment and interest rate will be stated as:

$$y = \left[ \frac{r(1+r)^N}{(1+r)^N - 1} \right].d.GDP \hspace{1cm} (8: \text{DAS formula})$$

Let us take the real case of Indonesian economy. The foreign debt consists of several foreign currencies, several maturity dates, and different interest rates. As an approximation of the debt level of the economy, it is assumed to be 29 percent of GDP (official announcement), the average interest rates guess for the whole debt is 3.5 percent, while the average maturity date is assumed to be 20 years\(^{21}\). From the above calculation, the economic growth cost is 2 percent of GDP, while the latest economic growth was 5 percent. From this, the economic growth without debt could have reached 7 %. It will result in a rosy economic situation as will be shown by the next explanation:

From another source, Gross Fixed Capital Formation within the period of 2015-2019 was between 32-33 percent of GDP. If without foreign debt, the economic growth rate in 2019 would be 7 percent. Since the economic growth rate within the same period was steady around 5 percent, while the debt level was officially held at 29 percent of GDP, the ICOR of the economy would have to be 4.6, much lower than the present ICOR, \(\sim 6.5\). This shows again the crushing power of the foreign debt to the economy, hidden by the present theory of development economics.

Domestic debt is quite neglected in Indonesia. But the World Bank publication\(^{22}\) has stressed the importance of considering it simultaneously. As it was shown, the economic growth would increase if the country previously restrained from taking foreign debt. There is a misperception, that domestic debt does not make any harm to the economy. It has negative effect in its potential rise in inequality level, because only the rich who could provide the fund for it. Domestic debt will also have a crowding-out effects for the domestic investment, if the government bonds offer a higher yield, while

\(^{21}\) There are different maturity dates and interest rates of the foreign loans. The formula is applied for each loan in each row of the Excel. It should be so arranged that each loan has a row, where the loan starting date and maturity dates are different from one to another. And all payments for each year, should be summed per column. It could be that the payment of principal and interest rate are not wholly calculated as indicated above. So this formula is a whole approximation to the real burden of the economy.

the private investment could have a higher potential economic growth contribution compared to the public projects. Japan with a domestic debt level of more than 100% of its GDP, has been more than 30 years mired in recession.

So in all its potential configuration of the sources of fund, the new paradigm with the money creation for development economics, do encourage avoiding foreign debt, but domestic debt should be sustainable too. Hence it does support the mainstreams concept, focusing on saving and/or loans. The new concept belongs to the domain of money knowledge, where Samuelson, a highly respected economist, endorsed the idea that money knowledge belongs to “a priestly caste” economists (Black). Such a situation, where knowledge is kept secretly by a group of professional or a limited number of people as it was the guild system of the medieval time is untenable. It is inconceivable in the era of free access of knowledge, which has been facilitated by the digitization of knowledge media, but under the guardian of the property rights.

8. Capital Flows to Developing Countries

Based on the capital flow theory, capital from saving surplus countries will flow to saving deficit developing countries, which is based on an implicit assumption that capital is the only determining factor for the economic growth. In addition to that, it is also assumed that the source of capital for economic growth is saving, domestic or imported foreign loan, either saving surplus of other countries or financial institutions. In fact. These assumptions are false as it has been briefly mentioned by the article of Feldstein and Horioka on the related theory about free capital flows. It concludes that data do not support the theory, where the size of investment in any advanced country is approximating similar to its saving magnitude, meaning that each country has behaved as if there was no effects whatsoever from free flow of capital. This is contradictive to the theory.

In 1990, Robert Lucas continued that line of research by questioning, why doesn’t capital flow from rich to poor countries. This is intriguing for the researchers. The diminishing return principle of economics says that the marginal return for capital in the countries with high capital intensity will be lower compared to those countries with low capital intensity. Hence based on this, it is expected that the capital should flow from rich to poor countries, under the above assumption that the determining factor of economic growth is only the capital intensity, neglecting the technology factor.
First Lucas takes the situation that the difference in productivity (production/worker) between two countries producing the same product, is only due to the difference in capital/worker. And, it follows the Law of Diminishing Return. By taking the case of India compared to US, Lucas implies that the marginal product of capital (of course must be the same capital in the same activity) in India is 58 times that of the US. It should drive capital from the US to India. But why not?

Lucas studies further and concludes: “The assumptions on technology and trade conditions that give rise to this example must be drastically wrong, but exactly what is wrong with them, and what assumptions should replace them?” Lucas considers four candidate answers, as follows: a) differences in human capital, b) external benefits of human capital, c) capital imperfections, d) imperial power monopolist.

By elaborating the difference in human capital and external benefits of human capital, it leads to the return on capital in India equal to 1.04 of that in the US, which is a very small difference. The capital imperfections will end in the political risk, which is translated into the respect of or not of the property rights. And the last argument on imperial power monopolist, being effective in the colonial era, could not be so at the present time. But the work of Lucas was only based on theoretical argumentations, without empirical works. In the next sections, it will be shown several short-summaries of such empirical studies.

In 2004, Aizenman, Pinto and Radziwil published their research through NBER: “Sources for Financing Domestic Capital – Is Foreign Saving a Viable Option for Developing Countries?” The question has been focused on the foreign saving as an option for domestic capital in developing countries. This has been directly related to the Development Economics proposal, that the main sources of development finance should be saving, either domestic or foreign saving, without mentioning other options, namely the money creation by domestic banks. Aizenman et al propose specifically “a new method for measuring the degree to which the domestic capital stock is self-financed.” This is very interesting in the era of free capital flows, which has been in operation since the floating exchange rate in 1973.

Aizenman et al found that on average, 90% of the stock of capital in developing countries is self-financed, and this fraction was surprisingly stable throughout the 1990s. It is surprising that the greater global integration of financial markets did not change the dispersion of self-financing rates. To the surprise of many, there is no evidence of an expected “growth bonus” associated with increasing the financing
share of foreign savings. In fact, a further astonishment, the evidence suggests the opposite: throughout the 1990s, countries with higher self-financing ratios grew higher significantly compared to countries with low self-financing ratios. Later will be shown its potential cause which is suspected due to foreign-debt cost.

It is popular that the developing countries did enthusiastically embrace the capital account liberalization in the beginning of 1990s. But after the crises in East Asia including South-East Asia and Russia, the debate shifted from when to liberalize the capital account to whether to liberalize it at all (e.g., Rodrik (1998)). A vital document for the capital account liberalization is the so called “The Washigton Concensus I” consisting of 10 (decalogue) commandements, proposed by John Williamson, but then replaced by the Augmented Washington Concensus II, which consists of twenty (20) commandements. The Washington Concensus has been accused of a neoliberal economic concepts.

In 2008, from the previously mentioned UNCTAD publication it was presented the following graph on the development of the debt average ratios, covering different composition of countries during the time period. The report contained both domestic and foreign debt ratios from 1994 until 2006. From the graph in the picture, it can be tracked several points with the highest ratio of debt to GDP per time-period, where the length of time span could be variable. It is found that the first highest ratio for foreign_debt/GDP was in 1994, then the second in 1999 after the Asian Crisis, then the third in 2003 before the global financial crisis (GFC) in 2008. While for the domestic_debt/GDP it was in 1999, 2001, and then in 2003. As a general trend, the ratio of the foreign_debt/GDP is declining faster then the domestic debt. This trend should arouse awareness in the DCs, triggered by the mentioned scientific publication on the issue, namely the research from Aizenman et al, where 90 percent of the capital formation in the DCs were by self-financing; foreign debt do have negative effects to the its economic growth. It revealed a significant difference from what is written in the theory of the development economics. There should be similar information on the relation between economic growth with current account, where the negative coefficient of correlation (CC) results in different economic performance. It is found that for the developed countries, the negative CC between growth and current account is followed by high economic growth, while for developing countries, generally it is followed by low economic growth. No growth “bonus” from foreign capital in developing countries. The next graph in figure 2 shows a declining trend of the composition of the public
debts in domestic and external debt. The rate of decline is stronger for foreign debt compared to domestic debt, but the two components are declining from the year of 1994 to 2006. In 1994, the domestic public debt was approximately equal the foreign public debt, but in 2006, the domestic public debt has been dominant in the total composition of the total public debt. By roughly comparing, the foreign public debt has diminished to only $\frac{2}{7}$th of the domestic public debt. It could raise a question, whether this is due to the results of the paper of Aizenman et al. or not. But the following graph shows also that the peak of the domestic public debt happened in 2003, where the percentage of debt to GDP is higher in 2013 compared to 1994, while such peak for foreign public debt also happened in 2013, but with a lower percentage of GDP compared to 1994. But there is a new debt development after the GFC in 2008, a fourth wave of debt escalation, both in developed countries as well as in the developing countries. This part of graph is not available at the time of writing this publication.

Of course, by comparing to this debt development graph from UNCTAD publication for the whole countries covered by the report, the later public debt development of Indonesia could trigger a question on its contradictive tendency. Even though without a clear decisive trend, the foreign debt component development advanced more progressively compared to domestic debt component.

**Figure 2**

Composition of public debt in developing countries

![Graph showing composition of public debt in developing countries](image)

*Note:* The number of countries included in the average ranges between 67 (2006) and 104 (2000-2001).

Source: UNCTAD, Domestic and external public debt in developing countries, No 188

Another meaningful study is the work of Prasad et al on foreign capital and growth in 2006. Their study arrives at the conclusion that foreign capital do not bring growth
to the host countries as promised. In relation to the Lucas paradox, Prasad et. al. later raise a different paradox, the Capital Paradox. In an effort to find more information to Lucas Paradox, Prasad et. al. deepened that research, found a variety of besetting problems in DCs: inadequate infrastructure, a poorly educated labor force, corruption, and a tendency to default on debt from abroad, and so on. All that reduces the risk-adjusted returns to investment, leading Prasad et al to conclude that it is not a paradox, but a reality. But then what is Capital Paradox that was coined by Prasad et al?

In neoclassical theory, if a country has insufficient domestic saving for investment, it should seek to borrow from saving surplus of foreign countries or foreign financial institutions, as it is said. Hence for higher growth, the country has to import more fund from foreign country, implying a larger negative current account. It is expected, the more a country import capital from foreign country, the more they invest, the higher its economic growth. Alas, it happens to the contrary. Prasad et al find that the more a country has a positive current account, the higher its economic growth. This is the case of the Capital Paradox. It is opposed to the prediction of neoclassical economic theory, because it expects that the bigger the negative current account will bring higher economic growth. This is also opposed to what is expected by Lucas Paradox, who questions why the capital does not flow from rich countries to the poor countries, or from advanced countries to developing countries.

Gourinchas and Jeannet claimed a new puzzle, the allocation puzzle, where the capital does not go to the higher productive economy, but to the low productive ones. It is contrary to the logic implanted by the neoclassical economic theory, where it is expected that the capital will go to the higher productive economy. Again, Gourinchas et al found the same results where the correlation coefficient between growth and CA is positive instead of negative for developing countries in order to have a satisfactory economic performance, namely higher economic growth. They gave explanation by saying that it is due to the lack of absorbing capacity of those countries. The correlation coefficient is negative for the industrial countries but resulting in a higher economic growth in their economy. It is interpreted that a capital inflow for industrial countries is without inducing negative performance, which is said due to good absorption capacity. A part of the deficiencies of the developing countries is attributed to the bad financial systems structure.

A thread of these critics is the “uphill” flow of capital to industrial country instead of “downhill” flow to developing countries (remember again the Lucas Paradox). One of
the vital reasons of the thread is the lack of absorption capacity in the developing countries, including those exporting the surplus capital abroad. Other common issue is the positive correlation coefficient of the growth rate and the current accounts, which is predicted to be negative. Negative correlation coefficient means that the total value of the imported capital is greater than the total exports value of merchandises and services.

Unfortunately, all these conclusions from field researches are still not taken into consideration by the development economic experts including those of the prestigious international lending institutions. It seems there were special interests in keeping the ideas out of consideration, so that the present international lending businesses could go undisturbed. Is this a kind of New Colonialism, as proclaimed by Sukarno in the Bandung Asian-African Congress (KAA) in 1955? From the other side, the question of Raul Prebisch and Hans Singer on the continuing deterioration of the terms trade between the developed countries and the developing countries should be taken into consideration. It seems that the developed countries are assumed to be the producers of the finished goods, while the DCs are assumed just the providers of the raw materials. Hence the perpetuation of the declining terms of trade could support the continuing role of foreign loans to the DCs. The present global value chain, which gives birth to the smile curve, which has negative effects to the DCS, is another situation that should be reformed under the WTO. The UNO should be informed this new paradigm on the financing development breakthrough

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{smile_curve.png}
\caption{Smile Curve}
\end{figure}

\textit{Usually, the left and right hand ends of the smile curve belongs to developed countries, the in the middle part of it belongs to DCs.}

In line with that, it is interesting to know, as one of the developing countries, but recently it has been one of the leaders of the G20 countries, how is the position of Indonesia in this issue? Sure, the success of the G20 has played a positive impact for the country. Indonesia has been able to build a sense of cooperation between the participating countries, at the time of the Russia-Ukrainian war

It is sure, the correlation coefficient of CA and economic growth is negative since long time. Data show since 2010 until 2019 that the average economic growth was
hovering around 5%, while the whole foreign capital inflow was growing at an average growth rate of almost 8% per year. Hence in this case, the Indonesian economy has not been positively affected by the foreign capital, since the foreign capital in the form of loans, grew faster than its economic growth. There was a growth difference of almost 3% in the rate of growth between the economy and debt. It is expected that the imported capital should have a leverage impact on growth, especially the often-cited expression as the *growth bonus of foreign loans*. According to Gourinchas, it could be attributed to the inappropriate financial system structure, which largely attributed to the financial deepening. One thing that must be considered is the role of technology in the economy.
Figure 4. Self-financing ratios and GDP per capita growth rates (4 countries that experienced major financial crisis and 2 countries that did not experience crisis.)

The six countries, are selected according to the easiness of placing them in this paper. Except Argentine and Mexico, all other countries experienced financial crisis in 1997. Alas, Indonesia was the hardest-hit country by the crisis.

From figure 4, it is seen that the self-financing ratio of Indonesia was more or equal to 1 until 1998, until the implementation of the Central Bank Independency as it is written in the law no 23, 1999. The economic growth of Indonesia until then was more than 5 percent or approaching 6 per cent per year.

The case of Indonesia needs to elaborated, because it was a burning issue during the covid-19 crisis. The study by Aizenman et al exactly shows that after the 1999, the self-financing of development was less than 1, which means that the government of Indonesia borrowed from foreign sources to finance the budget deficit, where one part of that is to finance a special part of development effort, namely to build infrastructures. There was a relation between the development self-financing and foreign loan financing (partial) as will be shown completely later when the issue of Central Bank Independence is discussed. Before the CB Independence, there was the Monetary Council (Dewan Moneter), which was headed by the Ministry of Finance. Hence, if there were a deficit, it could be tackled by CB. It means, in the terminology of Aizenman, it is a self-financing issue.

The related table in the later CBI discussion shows that the economic growth within the period of The Monetary Council was in average higher than after 1999, the period of the Central Bank Independence (CBI). The CBI entails a lower economic growth in Indonesia.

The result is not surprising. By borrowing from foreign countries, the loans would be repaid, both the interest and the principal installments. This loans repayment will leave the country, which will reduce the domestic GDP, hence reducing the economic growth. If the CB finances the budget deficit, there would be no leakage to the GDP, except the ensuing potential inflation. By a commensurate measure by the CB, it could be managed successfully, if the sequential construction of the infrastructures were arranged optimally. Why investment in the production sector capital could be managed without inflation? Except if the money creation is not appropriately arranged and sequenced, the danger of excessive inflation could be avoided. The threat of inflation could be just an excuse from those Neoliberal Economic thinking, putting the financial and monetary issues above all economic priorities, the economic financialization.
9. Foreign Debt and Economic Growth

By observing the next IMF figure and then comparing to the neoclassical economic theories on debt as a source of development finance, the outcome would be negative to the economic growth after passing certain threshold level of the borrowing countries. The threshold level were different from one country to another. The following graph is the smoothed joint points from field data, presenting the relation between debt and economic growth development. The graph does not say that such a relation could be valid for the whole set of data for developed and developing countries. It could be considered as an approximation for the relationship between debt and economic growth. Nonetheless it warns the developing countries about its approximative nature or its inexactness of that relationship, hence it is indicative.

What information can be obtained from the graph in figure 3? In general the higher the debt level (blue line), the lower the economic growth of the economy (the red line). It could be analog to the law of decreasing return to scale of the intensity of capital, the higher the less the return. Hence the higher the debt in GDP percentage, the lower the return, which could be analog to the assumption that the debt is employed in the productive sectors or the economy. It seems that the analogy should be supported by more explanation, so that the relation could be used as a guide to interpret the link between debt and economic growth. It is seen in figure 3 that for the debt curve, it rises continuously from left to the right, while the growth curve in red, it has a general declining trend (after declining, it rises and then declines again). The growth rate is irregular at that GDP growth interval which refers to the debt curve between 140% and 160% of PDB, where the economic growth rates hover between 4% and 4.5 %. Is it due to data insufficiency? Is the irregularity of the economic growth in conjunction with the debt progression due to irregularity between debt and economic growth?

But by observing the graph, the abscissas are the economic years of the realization of the investment (debt). What happens to the economic growth, generated by the same magnitude of investments could be different in different years due to changing domestic and or international environments. The irregularities of the economic growths in the period of 2012-2013 and 2015-2017 could be due to such factors of situations. But the general trend is that the higher the debt of a country, the lower would be the resulting economic growth. Hence this is the general conclusions that could be said about the relation between debt and economic growth.
One of the intriguing issues is the appropriate level of debt. The Indonesian law, fixes the maximum total debt level to be 60% of GDP. It is imitating the Euro zone law, which could not be suitable for Indonesia. Many researchers are of the opinion, that the threshold debt level is not unique for all countries\textsuperscript{23}, but different from one to other countries, depending on technology, the economic structure, the composition of debt, the demography and labor structure, the locally pertinent situation, and so on. The reading of the figure 3 says that a country with a debt level of \( \sim 172 \% \) of GDP still has a growth rate of 3.5\%. At another point, it is found that a country with a debt level of \( \sim 112\% \) of GDP, has an economic growth of \( \sim 7.5\% \). (Note: these figures are obtained through graphical interpolation, not of calculation)

For judging the case of Indonesia, it is better to take into account the above result of the qualitative reasoning: the lower the debt level of a country, the higher would be its economic growth. Hence, Indonesia with a total debt level of around 70 percent of GDP, should have a higher economic growth compared to a country with a higher debt level of 112% GDP. The graph, which is originally published by the IMF, could be accepted as a reflection of the reality, taken from a few countries during different time periods, giving birth to the above quasy law on debt: \emph{The higher the debt, the lower the ensuing economic growth.} But the data show that the Indonesian economic growth

\textsuperscript{23} This is also the opinion of the writer, stated in his paper in the ISEI Seminar in Manado, 2006.
in relation to the debt level was significantly lower than expected as compared to other country outcomes. Indonesia should have a higher economic growth. Other country with a debt level of 112% of GDP has a 50% higher economic growth compared to Indonesia with a debt 70% of GDP, hence 42% lower debt level, but with a lower economic growth of 5%. It contradicts the previous quasi debt law.

The previous bad result for Indonesia could be attributed to several factors. The first is that the efficiency of the Indonesian economy is still very low. Second, the utilization of the debt could be highly corruptive (Prof. Sumitro once said that the level of corruption in the Indonesian bureaucracy is about 30%). Third, the range of economic efficiency of the advanced countries included in the data could be much higher than the Indonesian economy, which might be due to better employment of technology in their economy. Hence the “debt cost” in Indonesia becomes much higher than the advanced country, hence the “uphill” flows of capital. This is the trigger for the Lucas paradox. As a whole it could be concluded, that the Indonesian economy has not been appropriately managed, either in the macroeconomic or in the microeconomic level. It could have been better than the what is now obtained.

One thing to remember, if the DCs export capitals, it will receive the return from that investment (namely the return from investing in treasury bonds), while if it imports capital, it has to pay principal installment and interest. There is a big difference between importing capital and exporting capital, as has been done by China. The issue has been treated by Gourinchas et al through the foreign asset inclusion in their model. Foreign capital inflows were represented by liabilities in their analysis, a channel for “leakage” in the GDP formation.

There are many economists thinking that the domestic debt is problem-free. It is actually incorrect. Japan is an appropriate example with very high domestic debt, which experiences crisis in 1990, and now is still mired in recession. As a matter of fact, there is a lack of interest in domestic debt, which is due to the following factors:

i) data unavailability on domestic debt (DD) – reliable datasets on DD either do not exist or are not amenable to empirical analysis.

ii) a wide-spread perception that DD is “endogenous” rather than an exogenous policy choice variable that governments can tweak to affect macro-financial outcomes;

iii) the relatively small size of DD relative to external public debt in most of less industrialized countries and emerging markets.
From an IMF publication, WP/07/127, it is obtained that the average ratio of Debt/GDP in Indonesia between 1996-2004 was 18.7 %, while the ratio of the Domestic_Debt/Deposit was 41.6 %, and in 1997 the crisis erupted. The policy makers should take this fact into account, and not to hide behind the information from developed countries, where their debt/GDP ratio is much higher than in Indonesia. One must recall the previous case, where the same negative correlation coefficient between current account with growth do not result in the same positive economic growth. It is worth to reiterate the warning, that many people argue on the very high debt to GDP ratio of Japan. Remember their debt is mostly in Yen, and the country has been tangled in recession for almost 30 years since the 1990 crisis. They are lucky, that their automotive industry is still among the best in the world, having a rescue for their total economy. Indonesia is until now without any such industry.

Again, the next table contains information on domestic debt of several countries, which should be regarded and considered in the debt policy formulation.

Table 1. Domestic Debt (DD)/GDP and DD/Deposit % for several DCs

| Source: IMF, WP/07/127, The role of domestic debt (DD) on economic growth ..., partial snapshot. |

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</tr>
</thead>
<tbody>
<tr>
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<td>Domestic / Deposits (%)</td>
<td>Domestic / GDP (%)</td>
<td>Domestic / Deposits (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>12.3</td>
<td>8.5</td>
<td>32.0</td>
<td>63.0</td>
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<td>34.1</td>
<td>15.2</td>
<td>54.3</td>
<td>25.4</td>
<td>80.7</td>
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<td>15.1</td>
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<td>13.4</td>
<td>23.3</td>
<td>46.9</td>
<td>26.1</td>
</tr>
<tr>
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<tr>
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<td>72.4</td>
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<td>15.6</td>
<td>26.4</td>
<td>31.3</td>
<td>24.7</td>
</tr>
<tr>
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<td>12.7</td>
<td>18.9</td>
<td>13.8</td>
<td>37.5</td>
<td>36.7</td>
<td>71.3</td>
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<td>9.8</td>
<td>10.8</td>
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<td>34.2</td>
<td>45.3</td>
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<td>7.2</td>
<td>15.5</td>
<td>7.6</td>
<td>17.1</td>
<td>23.2</td>
<td>25.6</td>
</tr>
<tr>
<td>South Africa</td>
<td>6.8</td>
<td>4.7</td>
<td>6.0</td>
<td>6.0</td>
<td>14.5</td>
<td>9.7</td>
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</tr>
<tr>
<td>Thailand</td>
<td>5.2</td>
<td>4.2</td>
<td>4.6</td>
<td>5.1</td>
<td>17.1</td>
<td>7.1</td>
<td>5.1</td>
</tr>
<tr>
<td>Turkey</td>
<td>3.2</td>
<td>5.7</td>
<td>24.4</td>
<td>19.3</td>
<td>15.5</td>
<td>35.9</td>
<td>73.2</td>
</tr>
</tbody>
</table>

Notes:
(i) The dark lines separate the three groups of LICs: SSA (Sub-Saharan African excluding South Africa), OTHER (some Asian, North African, Middle Eastern & Latin American LICs) and EM (emerging markets)
(ii) "Domestic debt" = (Banking sector's claims on central government (IFS 23a-42c) + securitised claims on central bank (IFS 23a-40c)) / GDP at current market prices (IFS line item 51b)
(iii) "Deposits" include current, time, idle and saving deposits

Source: IMF, WP/07/127, The role of domestic debt (DD) on economic growth ..., partial snapshot.

What could cause the lower growth of capital importing countries?

It has been proven by so many studies as cited before, that the countries which import finance for economic development are lagging behind the countries that employ a dominant domestic sources of financing. For this, there could be intelligent guess, due to non-existence of scientific study to justify the fact.
Let us see the case of Indonesia, that has been discussed before. Its official debt level is 29.2 percent (the precise figure) of GDP, entailing a cost of 2 percent of GDP. The economic growth in the period of 2010-2019 was 5% in average. Hence if the financing of the development in the cited period including 2019 was from domestic (regardless how), the economic growth would have been around 7%. Because the imported capital is a financial one, all the production system in the economy is the same (technology), with or without foreign capital. The result could have been different if it were the FDI.

Before embarking on the domestic sources of finance for development, it is good to see the foreign loans in Indonesian economy. Starting from 2010, according to the central bank (BI) publication (SULNI), the total country debt in 2010 was $ 202,413.0 million consisting of government debt of $ 118,624.0 and private debt $ 83,739.0 million. In December 2019, the government debt was $ 202,872.0 and private debt was $ 200,593.0 million. The whole time period consists of the president Susilo Bambang Yudoyono (SBY) sub-period, and Jokowidodo (JKW) sub-period. One of the important points to be noted, the rate of government and private debt growth was different between the two sub-periods. For the whole period, government debt growth was 6.14 percent, while the private debt growth was 10.86 percent per year. In general, the private sector was more aggressive in borrowing from abroad, with a much higher debt growth than the government sector. During the SBY sub-period, the debt growth of the financial sector was still much higher, 18.4 percent. Why the financial sector was so aggressive in the SBY administration? Without any supporting evidence, it is suspected that due to the presence of loan guarantee on private deposits, and the TBTF (too big to fail) argument, moral hazard and adverse selection in the banking sector has increased. Another negative factor is the different treatment on loans from banks, where the interest is deductible from taxable income, while the interest of the owned capital is not deductible. Finally, the last negative factor is the whole financial system, which is distorting.

As it is seen before, from the whole period between 2010-2019, the private sector debt growth is much higher than the government debt growth, 10.86 percent as compared to 6.15 percent. It is usually conjectured that the private sector is more efficient than the government sector. If the assumption is true, there should be a leverage factor for the economic growth. Another fact we need to highlight, the financial sector debt growth was higher at 11.14%, compared to the non-financial
sector debt growth at 9.91%. It also raises the question in relation to the allegation that the financial sector would push the real sector to a more efficient performance. But an important distorted issue is overlooked, where the financialization process occurs in the economy due to the higher rate of return in the financial sector compared to the real sector. This undercurrent process is ignored by policy makers, due to their conviction that the financial deepening is a good thing for the economic growth and the health of the economy. As seen from the high growth rate of the Indonesian financial sector, it is suspected that it has been beyond the really needed dose for a healthy economy. The high indebtedness of some of the society could be an indicator of the unhealthy under-current financial situation.

While the alert on the financialization of the economy have been raised in developed countries, the policy makers in developing countries are lauding it and the issue of financial deepening become a priority. Many of the developing countries are seeing the financialization process as a business-as-usual issue. It really has distorted the allocation of investment between the real sector and the financial sector, to the benefit of the latter. The rise in the capital market index, is related to the increase of the stock prices, which are mostly from the existing stocks of capital. The increase of the price, could be just due to the rise in demand, which could be triggered by the increase of credit availability from banks. If the credits from banks are allocated to such an activity in the capital market, then the economy has entered a rents economy, which is due to the casino economy effects of the capital market. The increase in a stock price due to the good performance of the related corporations, of course is a good thing. According to some observers, the banks prefer the increase in existing stock prices due to the rise in demand, because it will be short-term and it could be manipulated.

But if the increase in income is due to the increase of the rent components, it is economically unhealthy. This could appear from the previous suspected manipulation of the bank credit in order to have a quick rise in stock prices. The real estate prices are the appropriate target for this kind of manipulation. Michael Hudson is one of the first known prolific writer on this related issue, the FIRE sub-sector of finance.

In order to see the whole picture of the foreign debt between 2010-2019, the data is presented in the following table. The content of the table is complemented with a further explanation, on the SBY sub-period and the JKW sub-period, with the length of each is around 5 years, as follows:
<table>
<thead>
<tr>
<th>INDONESIA</th>
<th>Average Economic Growth 2010-2019&lt;sup&gt;dec&lt;/sup&gt; ~ 5%/year.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sector/Sub-sector</td>
<td>2010</td>
</tr>
<tr>
<td>Total ($ million)</td>
<td>202,413</td>
</tr>
<tr>
<td>Government</td>
<td>118,624</td>
</tr>
<tr>
<td>Private Sector</td>
<td>83,789</td>
</tr>
<tr>
<td>Non-financial Corp</td>
<td>65,833</td>
</tr>
<tr>
<td>Financial Corp</td>
<td>17,957</td>
</tr>
<tr>
<td>Gini index</td>
<td>0.315</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SBY</th>
<th>2010</th>
<th>Akhir 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total ($ million)</td>
<td>202,413</td>
<td>293,328</td>
</tr>
<tr>
<td>Government</td>
<td>118,624</td>
<td>129,736</td>
</tr>
<tr>
<td>Private Sector</td>
<td>83,789</td>
<td>163,592</td>
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<td>65,833</td>
<td>121,771</td>
</tr>
<tr>
<td>Financial Corp</td>
<td>17,957</td>
<td>41,822</td>
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<tr>
<td>Gini index</td>
<td>0.315</td>
<td>0.41</td>
</tr>
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<table>
<thead>
<tr>
<th>JKW</th>
<th>Awal 2015</th>
<th>2019-December</th>
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</thead>
<tbody>
<tr>
<td>Total ($ million)</td>
<td>293,328</td>
<td>403,466</td>
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<td>129,736</td>
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<td>Bank</td>
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<td>35,211</td>
</tr>
<tr>
<td>Gini Index</td>
<td>0.41</td>
<td>0.38</td>
</tr>
</tbody>
</table>

*Source: Bank Indonesia, restructured.*

There was another characteristic of the economic growth vis-à-vis the debt growth in the public sector and the private sector. It seems that the GDP growth remained the same between the two sub-periods, without influence of the composition of debt to the public and private sectors. Under the JKW sub-period between 2015-2019, the public sector debt growth was higher than private sector debt growth, while under SBY sub-period, it was the reverse. It was quite surprising, because the SBY sub-period was a time of the commodity prices boom. It is also not understandable that different debt allocation between the public sector and the private sector were without influence.
to the economic performance in the two sub-periods. How could it happen? Such an anomaly to expectation will be next discussed succinctly, because it is beyond the scope of the paper. Hence the next discussion will be conducted in conjunction to the previous the paper of Gourinchas et al.

From a separate calculation it is obtained that the total debt growth under the SBY sub-period is 9.72 percent per year, with the breakdown as followed: public sector debt growth was 2.26%, private sector debt growth was 18.21%, non-financial debt growth was 16.62%, financial corporation debt growth was 23.54%, and bank debt growth was 21.82%. Hence in the SBY sub-period between 2010 and 2014, the government debt growth was only 2.26% per year, quite very low compared to the JKW sub-period between 2015-2019, which was 9.35% per year. But the private sector and financial debt growth was much higher in the SBY sub-period compared to JKW sub-period.

As it was shown above, the GDP growth between the two-subperiods were almost the same. So, what could be the impacts of the different composition debt allocation?

By seeing other data, it appears that there is a rise in inequality as shown by the increase GINI index from 0.315 to 0.41 during the whole SBY period from 2004 to 2014. But the Gini index declined in the JKW sub-period of 2015-2019 to below 0.38. Hence the difference in the debt allocation between the JKW and SBY sub-periods had resulted in a different inequality development between the two sub-periods. There was continuing degradation in Gini index under SBY, while there was an improvement of the Gini index under the JKW sub-period.

It could be concluded that the difference of debt composition between the private sector and public sector, even without an obvious impact on the economic growth, clearly has an impact on the inequality. The higher portion of foreign debt to the private sector could be due to that. This needs further study, since the studys show that the return in financial investment is higher than the return in the real sector. The above data show that the allocated debt to the private debt were higher under the SBY sub-period compared to that of the JKW-subperiod.

10. A New Paradigm on Development Economics

As we have seen from the previous discussed results of several studies, we can converge to one conclusion that in general, in terms of growth, economies that rely on foreign capital performs less than those who take self-financing. Researchers such as
Aizenman et al, Gourinchas et al, Prasad et al, agree that the domestic sources of funds or financing are better than the alternative from foreign finance or loans. Some of the authors identified that those countries with domestic sources of development finance, also export capital to foreign countries.

How can this situation be explained? Regardless of the potential income distribution effects of domestic finance sources, it is conceived to focus on the outcome situation where development is financed by foreign fund. There would be principal of debt and interest to be paid, as it is calculated by the formula (8) previously. If the development finance is without foreign debt, there would not be “leakage” by repaying the principal and interest, as has been discussed before. Hence the economic growth would be higher. If it is assumed that there was the ability to export capital, as in the case of China, since there would be an additional income from that capital, as factor income. As an illustration, capital export bought the Treasury bonds, with 1% interest rate per year. If the amount of capital used to buy treasury is 2 percent of GDP, the income will be 0.02% of GDP. Hence it would be diametrically different, instead of repaying the capital and interest, there would be factor income from capital export. Could this be one of the main sources of China’s high economic growth before the covid-19 crises, having accumulated more than US$3 trillion in foreign exchange? In fact, an export in capital will result in factor income from abroad instead of “leakage”.

If the source of finance is from domestic investors, the return to investment would go to the rich people of the country, which raises the inequality in income and wealth distribution. However, it would not reduce the economic growth as if the fund were from foreign debt, since the debt payment remain inside the country. Conceptually, the negative effects of inequality could be solved by taxation. But, as it has been shown by several studies, economic inequality would be followed by a reduction in total consumption, which has a potential drop in economic growth too. So, even if the source of development finance is from domestic rich people, there would be also a potential drop in economic growth, which could be smaller.

Unfortunately, all the previous cited researchers, either individually or as a group, never mentioned specifically the sources of the domestic financing. The general source of financing is saving, especially domestic saving or either foreign saving surplus of a country or financial institution, namely the World Bank or IMF. Domestic

\[ \text{Formula (8)} \]

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saving has its drawbacks, which could reduce economic growth, because saving entails an abstain from current consumption, hence reducing the consumption expenditure, which in turn will lower the economic growth: *the paradox of thrift*. So which option is the best for a poor country? The neoclassical theory did not propose any on this subject. While mentioned researchers criticized the neoclassical theory in other aspects, they also did not recommend any other alternatives. But since financing through foreign debt entails in costly indebtedness, which should be avoided, we are left with the only logical and relatively simple solution, proven by Germany and China [UNCTAD], development financing by money creation.

The UNCTAD publication No 193, 2009 writes: “This paper argues that the answer to this question can be found in the Keynes-Schumpeterian ... financial system as a creator of credit plays a central role for the accumulation of capital. If the right structures are in place, the domestic financial system can provide inflation-free finance for investment ...”. The principle idea has been presented before on the same subject written in the Schumpeterian development economics, where the domestic financial system can provide finance by *the creation of purchasing power by banks.. out of nothing*. This idea has been proposed in a non-development economics context by another great economist, MacLeod, 45 years before Schumpeter did. Like MacLeod, there was also other banker-academician, who was a Schumpeter follower, declared the same principle: Albert Hahn. Among their works, only MacLeod’s book was written in English.

This article raises the question on the unpopularity of “*money creation out of nothing*” concept which is as old as the “*innovation*” concept since both of these concept have been presented in the same Schumpeter book. Many developing countries suffered in economic backwardness due to the ignorance of the concept, experiencing a big loss in economic growth by following the neoclassical textbook as well recommendations from international institution. Huber (2013) has written in his article “an economy basically does not need savings to be able to invest.” But again, as it is stated before, there is a neglect on the part of the economists in developing countries to search for better ways in funding economic development.

If the new way to finance development by tapping the domestic sources from internal banking system is employed, there should be a close monitoring by the central
banks to its application, because of the potential negative effect of higher inflation triggered by money creation. As a matter of fact, the process has been experienced by the developing countries, since the money creation now has been routinely practiced by the commercial banks at the time of credit awarding to private sector. Unfortunately, this process of money creation is mostly ignored by the public sector. Perhaps this is due to Samuelson’s advice which deliberately proposed to hide the money-knowledge from the public, which is considered the monopoly of the priestly caste of economists. Therefore. It is understandable why, the money creation out of nothing, the money knowledge, remains publicly vastly unknown.

Hence the domestic source of fund proposed by Schumpeter before is not savings, as implicitly assumed by the mainstream economics, but money creation. Without referring to the domestic money creation, the president of WBG David Malpass, urged the DCs to avoid foreign debt by replacing it by the domestic sources. Unfortunately David Malpass did not mention the which domestic sources are in his mind, either the bonds or domestic commercial banks. The idea from Schumpeter, where the present money is exchanged with future money, should also be elaborated appropriately whether in domestic or international interaction of the economy, either in monetary or fiscal problems. Both domestic and global economic cycles should be taken carefully into consideration.

A note on the money creation in the AFJM (Alliance For Just Money) movement, the money creation should be conducted by the sovereignty or the state, not by the commercial banks as usually conducted now.

11. Indonesian Experience with the Central Bank Independence

Before the new law of the Indonesian Central Banks in 1999, Indonesia adopted a Monetary Council (Dewan Moneter), where the CB was under the supervision of the Council. The era of Monetary Council in Indonesia, meaning that the Central Bank was under the Ministry of Finance, was an era where the economic growth was better then the era after the implementation of the Central Bank Independence. Table 3 shows this situation. The Era of Central Bank Independence was supposed to be an era of the New Reforms in all aspects of the countries: politically with more political freedom, economy with no KKN (kolusi, korupsi, nepotisme), which means: no collusion, no corruption, and no nepotism. Alas, the Economic Neoliberalism was smuggled into the
economy, especially to the monetary sector, making the country experienced the negative impacts of dependency to the foreign loans at the time of economic distress, leading to the budget deficit. At the time of high necessity for all kinds of infrastructures, budget deficit is inevitable, hence borrowing foreign loans. According to the calculation of the interest burden of foreign loans, it is obtained by assuming an equal certain level of interest rates for the whole loans, it costs the economy at least 2 % of GDP. It is certainly an approximation, because the structure of the loan maturities are different from on loan to another. Foreign loans interest rate can be consulted in the next picture.

Figure 6. Average long-term nominal government bonds yields.

![Average long-term nominal government bonds yields](image)

Source of data: World Bank, cited in, Kose et al: Global Waves of Debt
Note: Average long-term nominal government bond yields (with 10-year maturities) computed with current US dollar GDP weights, based on 36 advanced economies and 84 EMDEs.

From figure 4, it is seen how is the structure of the loan interest rate, calculated with a special methods by the World Bank group. In 2019, the average long-term debt for developing countries is more than three times the rate for developed countries. It is exploitative. Unfortunately Bank Indonesia does not publish the charged interest rates for Indonesian foreign loans. The central bank said that the Indonesian loans are with a low rate of interest, but without publishing how much. There is an issue the of lack of transparency here. One of the required data on credit for example is its business allocation to the real sector, or financial sector. The issue of financialization has been
a global one, and it is important to have the information. People would like to have the information on the why of the Indonesian economic growth after the 1999, especially during the Jokowi era, while the infrastructures have been massively constructed.

During the era of Monetary Council, the budget deficit could be financed by the Central Bank by buying the government bonds. By the terminology of Aizenman et al, it is denominated as self-financing, where the economic growth could be expected to be better compared to the countries, which financed such a deficit with foreign loans (for example from the World Bank). Their study concluded that 90 percent of capital stock in developing countries were funded by self-financing, not by borrowing from abroad.

Table 3. Does Central Bank Independence Improve Economic Growth?

<table>
<thead>
<tr>
<th>YEAR</th>
<th>EC GROWTH</th>
<th>YEAR</th>
<th>GROWTH</th>
<th>YEAR</th>
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Source: Author’s compilation from the World Bank report: World Bank Development Indicators, from internet, accessed on December 20, 2022, hour: 15. 18, Jakarta Times

Other studies showed the similar results, that the foreign loans for development financing are not recommended, for example from Prasad et al (2007), Gourinchas et al (2007) and Rodrik. Rodrik commented especially on the negative impacts of The
Washington Consensus. According to Prasad et al, the more a country has a positive current account (CA), the higher its economic growth (China, South Korea). Economic Growth and current account are positive for developing countries, which export capital, hence it is called the paradox of capital. Gourinchas et al found that “capital does not go to the most productive capital, but to the low productive ones, hence they say it as the allocation puzzle. Because the theory says that the capital will go the countries with the most productive capital. Hence it is said to be the allocation puzzle. Dani Rodrik criticizes the capital liberalization movement, especially from the World Bank with The Washington Consensus. Indonesia in 1997-98 was one of the victims of the Free Flow of Capital, with the Financial Crisis.

12. Conclusions

From reading the mainstreams textbooks on the development economics or the neoclassical theory, it is concluded that saving occupies the place of primacy for development finance. But Schumpeter is of a different opinion\textsuperscript{26}. Being a development economist as well as a monetary theorist, he proposes “the domestic bank money creation out of nothing” as a source of fund for development financing. Instead of relying on domestic saving, he proposes a domestic money creation. But it should be based on a careful observation of other monetary principles and policies determined by the Central Bank. His double expertise in development and monetary economics could be a source of his deep understanding of the potential cooperation of economic development and monetary affairs.

The lead of Germany in applying the bank money creation for development finance could be attributed to the fact that the Schumpeter’s books were written in German language. Its translation into English was quite late because it was challenged by other development economics books written in English, which was already widely spread in other countries. It is understandable because the US has a vast economic and political dominance in the world, hence the number of English-speaking populations is also dominant. It could be the reasons that the dissemination of the Schumpeter ideas was only for limited audience.

\textsuperscript{26} Bentham has mentioned the same idea with other terminology, forced saving (1843). Then MacLeod (1866). Also, Keynes in his Treatise, but later dropped it in his General Theory. There are many others.
To the surprise of the writer, after consulting with two publications from the World Bank\(^27\), the topic of the role of money creation for development financing is absent. The two publications were edited by Lawrence Summers et al and Joseph Stiglitz et al. Mentions on Schumpeter were limited to inventions and innovations issues, and entrepreneurship, but not on how to finance the development in developing countries. Nonetheless, Stiglitz is one of the top economists who supports the developing countries in their effort for developing their countries. There is a question on the neglect of financing issues in Schumpeter book, because the book contains financing issues by monetary creation.

The previous facts show, the developing countries (DCs) in general, which rely on loans from foreign countries for their development finance, were growing less than those countries relying on self-financing. The correlation coefficient between the economic growth rate and Current Account (CA) is positive for the good performing developing countries, while it is negative for the developed countries. The higher its value, the higher the economic growth of the country. But, a pertinent question, how to get the capacity of self-financing?

The negative correlation coefficient could encompass both the less performing developing countries and the successful developed countries, but with an opposite result. Data show that for the developed countries, negative correlation coefficient does not end in less economic growth, a disappointing result, but a high economic growth instead. This is attributed to the well-functioning of the good and appropriate financial system in the developed countries, and of course its high production technology level. Meanwhile in the DCs, it is the opposite, there are still many backward technological and social conditions for achieving higher economic development. This explains why the capital flows “uphill”, not “downhill” as is highly expected by the theory (Lucas).

So, the situation of the negativity of the coefficient of correlation between the current account and the economic growth, which prevails in the developed countries, should not be used as a guide for developing countries, before examining the interrelation of

the country’s financial system with its technology and its economy. For the case of Indonesia, as it was presented in table 2 before, the foreign debt growth in Indonesia at a level of almost 8.0 percent per year within the period of 2010-2019, resulting in an economic growth of only around 5 percent, should be considered as an indicator of the ineffectiveness of foreign finance to support Indonesian economic development. Despite the brevity of the period of either SBY and JKW in 2010-2019, where the private debt growth under SBY was higher than that under JKW, but with insignificance difference in economic growth, it could not be used to judge the efficiency impacts of the public and the private sectors debt allocation in the economy. Of course, such a short period is not wholly convincing to take that conclusion. From the other side, it shows that the rise of inequality during SBY period is higher than that of JKW, indicated by the Gini coefficient development. The different Gini coefficient development during the SBY and JKW period could lead to the conclusion about the role of the private sector debt and the public sector debt. Instead of rising the Gini index as during the SBY period, it is declining during the JKW period. So, even though the economic growth difference is insignificance during the two-periods, the resulting inequality rises much higher during the SBY period. Without a robust test, it could be concluded that the rise in inequality during the SBY period is due to the dominance of the allocation of the foreign debt to the private sector. The issues of private sector and the free market was much louder during the SBY period, where the economic planning issue was downplayed vocally.

Based on the narrative reasoning, this article concludes that foreign debt should be replaced by sovereign money creation, at least for the present economic situation, technology level and financial system. But it should be accompanied by support from the Central Bank policies. The latest movement in the reform of the global monetary system argues that money creation should not conducted by the commercial banks, which are mostly privately owned. Even though there are state-owned commercial banks, these banks works according to the private commercial banks. In that sense, the monetary creation should be totally conducted by the Central Banks, under the supervision of the government.

One of the byproducts of this study is related to the negative impacts of Central Bank Independence, which could be seen table 828. The Indonesia economic growths

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28 The data in the table was obtained/compiled from the World Bank publication as stated in that table 3.
during the functioning of the Monetary Council (before 1999), were in average higher than those after 1999, after the implementation of the CBI, which was stated in the law no 23, year 1999. The low Indonesian economic growths after 1999 was accompanied by the rising accumulation of the foreign exchange indebtedness, is an undeniable fact about the negative impacts of the CBI.

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