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STRENGTHENING THE ROLE OF ASEAN INFRASTRUCTURE FUND (AIF) AS A RESPONSE TO REGIONAL DEVELOPMENT AND GLOBAL INITIATIVE

Establishment and design of AIF is motivated by the uncertainty of the global economy and self-reliance based on a strong belief in infrastructure development funding. Even though AIF has been running for two years, there are lots of obstacles hampering its success. Inevitably, in the short term it has to use additional contributions from its member states. In the long run, AIF may raise capital through bonds issuance. It is assumed that AIF might possibly exit the Asian Development Bank and release its dependency on other multilateral institutions.

Keyworld: *ASEAN; infrastructure fund; bond issuance; institutional investors; pension fund.*
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ПОСИЛЕННЯ РОЛІ ІНФРАСТРУКТУРНОГО ФОНДУ АСЕАН У ВІДПОВІДЬ НА ВИКЛИКИ РЕГІОНАЛЬНОГО ТА ГЛОБАЛЬНОГО РОЗВИТКУ

У статті надано пояснення, чому започаткування та структура Інфраструктурного фонду АСЕАН були мотивовані нестабільністю світової економіки та значною автономністю дослідженого регіону в плані фінансування інфраструктурного розвитку. Описано проблеми, що стримують розвиток Фонду протягом двох років з дня його заснування. Доведено необхідність додаткових внесків від її членів у короткотерміновому періоді. Для довготривалого періоду задля отримання додаткового капіталу запропоновано випуск облігацій. Висунуто припущення, що для Фонду доречним може стати вихід зі структур Азійського банку розвитку, а також зменшення залежності від аналогічних міжнародних фінансових організацій.

Ключові слова: *АСЕАН; інфраструктурний фонд; випуск облігацій; інституційний інвестор; пенсійний фонд.*
Рис. 2. Табл. 4. Літ. 13.

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УКРЕПЛЕНИЕ РОЛИ ИНФРАСТРУКТУРНОГО ФОНДА АСЕАН В ОТВЕТ НА ВЫЗОВЫ РЕГИОНАЛЬНОГО И ГЛОБАЛЬНОГО РАЗВИТИЯ

В статье пояснено, почему учреждение и структура Инфраструктурного фонда АСЕАН были мотивированы нестабильностью мировой экономики и значительной автономностью исследуемого региона в плане финансирования инфраструктурного развития. Описаны проблемы, сдерживающие развитие Фонда в течение двух лет со дня его учреждения. Доказана необходимость дополнительных взносов от его членов в краткосрочном периоде. В долгосрочном же периоде для получения дополнительного капитала предложен выпуск облигаций. Предположено, что для Фонда целесообразным может быть выход из структур Азиатского банка развития, а также снижение зависимости от аналогичных международных финансовых организаций.

Ключевые слова: *АСЕАН; инфраструктурный фонд; выпуск облигаций; институциональный инвестор; пенсионный фонд.*

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Introduction. In 2012, South East Asian Countries included in ASEAN have established an ASEAN Infrastructure Fund (AIF), a private financing corporation with the purpose to provide infrastructure financing facilities. This fund started operating in 2013 and is owned by ASEAN countries as well as the Asian Development Bank (ADB). AIF main objective is to finance infrastructure projects, especially those enhancing connectivity between the ASEAN countries.

Even though this fund has been running for two years, still there are lots of obstacles faced by ASEAN to make this organisation operate as expected. This is reflected in the results of dynamic SWOT-analysis of the AIF carried out by "Media Pressa Finans". According to this analysis, the obstacles include: 1) relatively small capital structure; 2) system of distribution of funds (project pipeline) which is not visible; 3) lack of diversification amonf borrowers; 4) lower loan value as compared to allocations per year; 5) uncompetitive lending rates as compared to those offered by other international financing institutions. The challenge that must be faced by the AIF is that this institution has to be competitive with other international financing institutions.

This paper aims to assess the changes in the capital structure of the AIF in the short and long terms. Also, it will assess the possibility to develop infrastructure financing product of AIF in the future. In order to achieve these purposes, a website research has been conducted to collect the variety of information needed. Furthermore, several focus group discussions with relevant stakeholders has been also undertaken to obtain specific information from both internal and external units of the Ministry of Finance.

Literature review. ***Sources of financing.*** Public sector financing (infrastructure) in developing countries mostly rely on state budgets and the earnings of state owned enterprises (SOEs), which account for approximately 70% of the total infrastructure spending. Another 20% is usually financed by private sources, and the rest (approximately 10%) is financed by multilateral and bilateral development agencies (Delmon and Delmon, 2011; Bhattacharya et al. 2012).

The capacity of state budgets to finance the infrastructure has declined, especially since the strike of the global financial crisis 2008–2009 (Groff, 2014). The crisis has also led to the narrowing capacity of investors to add more capital. Moreover, with more intense competition among the countries for financial sources for their infrastructure projects, difficulties also increased. Financing capacity is waning and one country had to scramble with others. At the same time, funding from the Multilateral Development Banks (MDBs) and other donors may not be able to fill this gap.

Meanwhile, as set in Basel III, long-term financing of infrastructure projects by banks is tightened. Whereas financing of infrastructure projects in developing countries is still heavily dependent on bank financing, including banks from developed countries. It was seen after the financial crisis, when European banks started to reduce lending to infrastructure projects, for the reason that they feared for a mismatch between funding sources a the term of a loan. According to the G20 (2013), the agreement volumes in 2012 were at their lowest level in history. However, since 2013, European banks actively started again their project financing, including cooperation with institutional investors offering loan financing through bonds.

A number of breakthroughs have been accomplished to search for sources of infrastructure financing, including those from the private sector. Attention to institutional investors such as pension funds, insurance companies and sovereign wealth funds, is ever increasing. According to the research (OECD, 2013), the potential of assets under management (AUM) of institutional investors in the OECD member countries in 2012 reached 78.2 trln USD. Many instruments are developed to attract potential funds from institutional investors, such as through equity and debt (Inderst and Stewart, 2014).

Investment in infrastructure is a very broad term as such. The main focus in this study is on direct investments (i.e., investments in the term of debt or equity directly injected in a project), which is usually a long-term and low liquidity. Investments in this form can produce better results than those obtained in the fixed income market, but with a higher risk potential. They also generally offer a lower correlation with traditional assets (such as equity investments listed at a stock or corporate bonds in the energy sector, telecommunications or construction sector) and diversification opportunities. Some assets can also provide a hedge of inflation, depending on contractual arrangements (Inderst and Stewart, 2014).

Making investments in infrastructure, investors typically evaluate multiple investment products such as government bonds, capital markets and private equity. Investors evaluate not only how to invest, but also the decision whether to invest in infrastructure or not at all.

Investors represent a diverse group of equity investors and debt providers. One investor can utilize this type of financing and a number of different financing techniques that can be used to ensure the optimal financial structure. Long-term institutional capital is the largest source of untapped private finance for infrastructure.

According to the World Economic Forum (WEF, 2014), it is estimated that 20% of all project finance loans in 2012 came from institutional investors. Insurance companies accounted for 7% of the total project financing loans, and pension funds accounted for only 3%. Fund managers, alternative channels for pension funds and insurance accounted for 8%.

Institutional investors such as insurance companies and pension funds were hampered by exact benefit. They prefer to choose the types of infrastructure investment in accordance with long-term liabilities. Thus, these investors prefer to take brownfield equity investments at developed markets. Meanwhile, governments focus on greenfield projects to increase capital infrastructure. At emerging markets, new investment needs are much higher considering the needs of economic development.

Based on the research of R. Della Croce (2011), obstacles in allocation of institutional investors are as follows (Table 1).

Challenge of institutional development of AIF. In the operational context, ADB appointed as administrator of the AIF, so that all projects to be financed by the AIF meet the criteria of policies and procedures that apply to ADB. Additionally, as an administrator, AIF manages financial operations in terms of operational costs for the preparation of a list of projects (project pipeline), lending, project monitoring, and fund investment that has not been used. With regard to cooperation between the AIF and multilateral institutions such as the Credit Guarantee Investment Facility (CGIF), ADB-Asian Infrastructure Financing Initiative (AIFI) and other institutions, the ADB as an administrator act as a representative of AIF.

Table 1. **Obstacles in allocating institutional investors** (Della Croce, 2011)

Issues with government support for infrastructure projects	- Lack of political commitment over the long term - Lack of infrastructure projects - Fragmentation of the market by different government level - Regulatory instability - High bidding cost
Lack of investor capability	- Lack of expertise - Problem with the scale of pension funds - Regulatory barriers - Short-termism of investors
Issues with investment conditions	- Negative perception of the infrastructure investment value - Lack of transparency - Mis-alignement of interests between infrastructure fund and pension funds - Shortage of data on infrastructure projects

As an administrator, ADB implemented annual administrative charge (annual fee) of 40 bps which is calculated from the value of assets. This figure is greater than the Credit Guarantee and Investment Facility (CGIF) in which ADB only sets for 10 bps. Higher annual fee is applied for the reason that ADB has additional tasks to prepare the project.

In comparison, for the trust fund similar to AIF, there are various calculations of administrative cost as well as the amount of these costs. The World Bank Group, for example, is charging 2–2.5% of profits and overheads costs. Meanwhile, the African Development Bank Group charge no more than 20% of gross revenue. Somewhat similar is The Climate Investment Funds (CIFS) charging the fee of 5.2% of the total funds / assets for the Clean Technology Fund and 3.5% for the Strategic Climate Fund (SCF).

Table 2 shows a wide range of administrative costs if a trust fund is self-administered. CTF Trust Fund, for instance, has the administrative budget of 1% of the total funding and SCF Trust Fund, FIP and SREP Trust Fund have the administration fee of 5% of the total funding. PPCR Trust Fund is more efficient, with the administration fee of 3%.

Based on the description of administration costs of trust funds which either are managed by MDBs or self-managed, the AIF should explore to collaborate with various MDBs such as the Islamic Development Bank (IDB), World Bank (WB) and other MDBs, for cheaper administrative costs. In addition, cooperation with other MDBs would also be advantageous, because MDBs are expected to contribute to strengthened capital structure of AIF, so that the funds disbursed will be greater. However, AIF should consider the ability to absorb these funds to the fullest. In terms of countries or entities that receive benefit from businesses, they should also consider the value of the proposed loan. If a loan is not too large, while the sources of funding are more than one, then administrative costs will be higher, thus making it unattractive.

Challenges of AIF in financing infrastructure in ASEAN countries in the future. As a multilateral financial institution, some of the challenges faced by AIF among others are: First, the problem of funding. According to ADB and the ASEAN Secretariat, the need for infrastructure investment in the period 2010–2020 for electricity, transport, water and telecommunications reached 596.1 bln USD. While B.N. Bhattacharyay et al. (2012) estimated that up to 2020 the infrastructure financing needs of the ASEAN countries reached 1094.6 bln USD. Rapid economic growth of ASEAN since the 1997–1998 crisis puts great pressure on infrastructure coverage. ASEAN members recognized the importance of hard and soft infrastructure as a step towards ASEAN economic community by 2015. Given the magnitude of the funding needs for infrastructure investment, still there is a gap in infrastructure financing.

Table 2. **Types of fund, shareholders and administration fee**
(The World Bank Group, 2013 Trust Fund Annual Report; AfDB Statistics Department, and Lattanzio, 2013)

MDBs	Shareholders	administrative charge
The World Bank Group	IBRD/IDA trust funds	Depend on benefits and overheads cost, more or less 2–2.5%
	MIGA	
	IFC trust funds	
	Sovereign countries and European Commission	
The African Development Bank Group	The African Development Bank (ADB)	No more than 20% of gross income
	The African Development Fund (ADF)	
	The Nigeria Trust Fund (NTF)	
	Special Funds	
The Climate Investment Funds (CIFs)	Clean Technology Fund	5.2% of total assets
	Strategic Climate Fund (SCF)	3.5% of total assets
CTF Trust Fund	Contribution of 9 countries	Administrative budget = 1% (from the total funding)
SCF Trust Fund	Contribution of 13 countries	Administrative budget = 5% (from the total funding)
FIP Trust Fund	Contribution of 8 countries	MPIS costs = 5% (from the total funding)
PPCR Trust Fund	Contribution of 9 countries	MPIS costs = 3% (from the total funding)
SREP Trust Fund	Contribution of 11 countries	MPIS costs = 5% (from the total funding

According to ADB, resource mobilization is also worrisome. Today, around 30–40% of the required funds are expected to come from public contributions and governments, 10–12% – from the bank, with nearly half of the necessary funds per year is covered by private investors (Basu Das and Sanchita 2013).

In line with the infrastructure investment needs of ASEAN, AIF has responded with additional planned capital. First, the contribution of members is expected to increase from 485 mln USD at present to 970 mln USD in 2020. AIF also plans to issue hybrid equity in 2016 amounted to 162 mln USD. With additional equity, debt outstanding is expected to increase from 120 mln USD to 1,229 mln USD in 2020 and to 2,618 mln USD in 2026. If this plan can be realized, then the need for infrastructure funding of the ASEAN countries will be covered from AIF.

Second, the structure of infrastructure projects financing. In order to meet the financing needs of infrastructure projects of the ASEAN, AIF is required to provide a long-term fund (15–20 years) at a competitive cost, because infrastructure projects are generally long-term. Meanwhile, a borrower must be responsible for paying the principal and interest, regardless the cash flow of a project. AIF does not plan to fund the loan at the time of the commitment because of the magnitude of potential costs, instead it will be funded at the time of these projects starts with melting time, which usually lasts long. Thus, within certain time, AIF will have a substantial financial obligation to fund the completion of projects that have been approved. It is therefore important for AIF to ensure it has the capacity to fulfill these obligations arising from loan commitments under various market conditions. The pricing policy of cost-pass-through of ADB is still an option for AIF, as it has flexibility in providing long-term loans at a competitive cost.

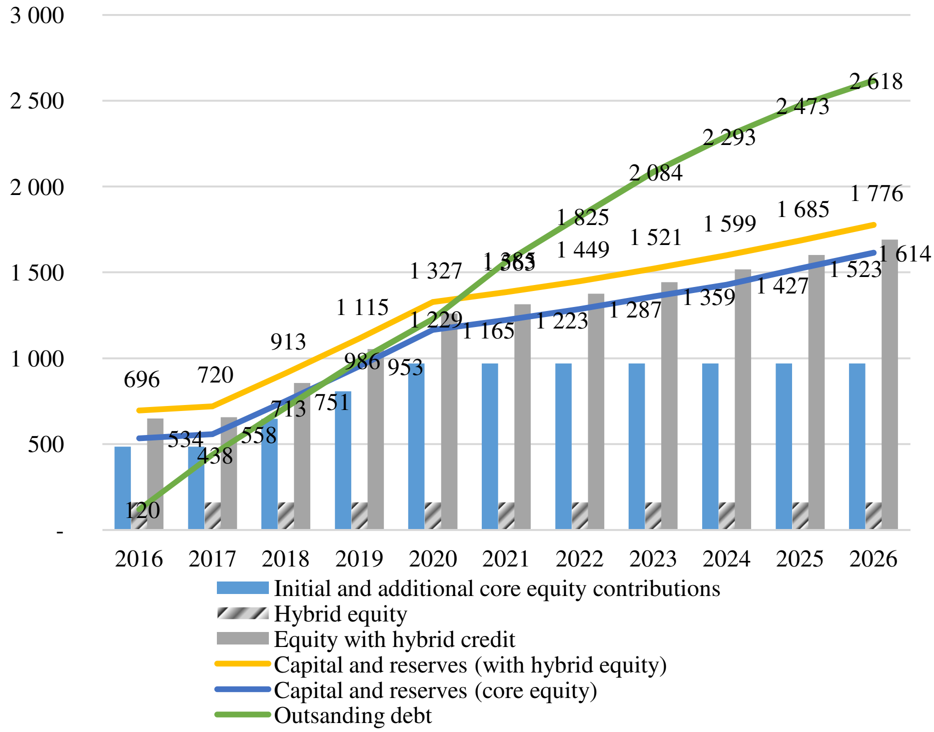


Figure 1. **Estimated additional capital of AIF (2016–2026)** (ADB estimates)

In relation to the limited capital of AIF, for the period 2012–2014, it has prepared pipeline projects by country and by project. By country, AIF has implemented credit limits of 30%, and 40% per sector, with the value of 75 mln USD per project. Besides, ASEAN members, individually, can apply for partnership projects with other ASEAN countries via sub-regional cooperation initiatives such as the Greater Mekong Subregion, the Brunei Darussalam-Indonesia-Malaysia-Philippines East ASEAN Growth Area (BIMP-EAGA), or the Indonesia-Malaysia-Thailand Growth Triangle (IMT-GT). In addition, AIF also supports the implementation of MPAC, which has identified a number of major projects to facilitate physical connectivity and policies in the region.

As part of the integration roadmap, the ASEAN members hope to have freer movement of capital in the region. One key initiative in this regard is creating a regional stock market to connect the major stock exchanges of the ASEAN. Investment in infrastructure assets can be done either through direct investments, into assets, or indirect investments through investment in the companies involved in the development, constructoon or infrastructure. By connecting the stock exchanges of ASEAN, it is expected to promote infrastructure projects in the region. Besides, it will also allow listed companies in the region enter the broader capital market. As part of the first phase of the project, "a three-way link" between the stock exchanges of Singapore, Thailand and Malaysia has been created.

Third, rating of AIF. To be an effective financial intermediary, AIF should have the ability to access capitals market. To that end, independent financial strength of AIF is very important. Financial strength, which will be assessed by rating agencies and be based on the support of shareholders and financial policy, and also on several criterias, such as capital adequacy, credit quality of loan portfolio, liquidity management, and operational experience. AIF financial policy, including asset and liability management, and policies of managing market risk, credit risk and exposure management, at the early stages is largely based on the experience of ADB which has operated for more than 50 years. In operations of AIF, ADB has a role, ranging from project preparation for administration, including co-financing, corporate governance, and an institutional one.

Fourth, the ability to access public funds. In order to finance long-term infrastructure projects, AIF should have the ability to access long-term debt from the capital market, so that there is a conformity period of time between the source of funds and lending. As the diversification of funding sources, it may also use financial resources of public institutional investors, including central banks, and private institutions in various countries that guarantee market access on an ongoing basis. This means that bonds issued by AIF must have sufficient depth and liquidity at secondary markets to attract the interest. AIF should plan an annual lending program with that goal.

Commercial banks that utilize their access to capital due to their strong deposit base also could be one of the sources of infrastructure funding. However, funding from commercial banks is hampered by the value or the amount of loan and term of investment in infrastructure, so that risks to be faced by banks are very large. This became obvious after the global financial crisis in 2008, when commercial banks began to hold back lending.

The money market could be one source of infrastructure funding in the ASEAN. But the problem is that funds raised through money markets in Asia in general came from private individuals and businesses, and thus investment decisions are based on risk and return. Money market funds are generally invested in real estate or stock market. To attract investors to the money market in order to distribute its investments in infrastructure, there is a need to develop domestic financial markets, especially bond markets along with other appropriate financial instruments.

Short-term funding strategy. According to the results of the AIF meeting (RPP REG 45 097), from 2016 to 2026, outstanding loans are expected to increase from 120 mln USD to 2,618 mln USD. By that AIF capital contributions from member countries is expected to increase from 485 mln USD in 2015 to 970 mln USD in 2020, or doubled. This will be gradual, amounting to 162 mln USD in 2018, 161 mln USD in 2019 and 162 mln USD in 2020.

Table 3. **Simulation of AIF capital increase,** *mln USD*

No	Countries	Year			Total	%
		2018	2019	2020		
1	Brunei	3.34	3.32	3.34	10.00	2.06
2	Cambodia	0.03	0.03	0.03	0.10	0.02
3	Indonesia	40.07	39.82	40.07	119.95	24.73
4	Laos	0.03	0.03	0.03	0.10	0.02
5	Malaysia	50.08	49.77	50.08	149.94	30.92
6	Philippines	5.01	4.98	5.01	15.00	3.09
7	Thailand	5.01	4.98	5.01	15.00	3.09
8	Singapore	5.01	4.98	5.01	15.00	3.09
9	Vietnam	3.34	3.32	3.34	10.00	2.06
10	ADB	50.08	49.77	50.08	149.94	30.92
Total		162	161	162	485.00	100.00

Long-term funding. In the long run, AIF may issue bonds by utilizing external sources of financing, primarily foreign exchange reserves owned by member countries, pension funds and insurance funds. These 3 sources could be a significant source of infrastructure financing. Utilization of these funds can be pursued at least through bond issuance.

The liquid bond issuance requirements at the secondary market are: 1) Rating. Liquid bond market requires higher credit rating; 2) Issuer. High secondary market activity requires an issuer that can be accessed by the market systematically; 3) Size. Benchmark bond issue with the size of over 500 mln USD. If it is included in credit indices, it should also consider requests from various credit indices funds in order to ensure higher market liquidity; 4) Tenor and yield curve. Secondary liquidity for the tenor of 5, 7 and 10 years. Yield curve developed well and issuance in all due date ensure higher secondary market activity; 5) Investor base. The quality of this base such as insurance funds and pension funds, ensures high liquidity; 6) Dealer support. Primary dealers support liquidity at the secondary market through market formation.

In the context of bond issuance, the strategy that can be applied by AIF in the medium term is as follows:

1. Optimal allocation to expand the investor base. Optimal allocation of AIF to traditional investors (central bank, regional commercial banks, pension funds, mutual funds and insurance companies) and alternatives investors (hedge funds, commodity futures exchange, private equity) will ensure the diversity of the investor base. Differences in the investment patterns of traditional investors and different tastes and capacity to absorb risks on the part of market players (encouraging regular trade) will increase liquidity.

2. Dealer support to facilitate market access. Pointing 2–3 arranger for medium term note program (MTN) together with 4–5 dealers to facilitate commerce (including repo) at the secondary market. These dealers provide liquidity by treating continuously two-way prices under any trade conditions. If needed, AIF could support the process through an auction.

3. Usual Issuance. AIF can access the market to ensure liquidity, such as the MTN issuance program so it can provide support o maintaining the interest of the market.

4. Several stages. AIF is likely to access the market on the annual basi; to maximize the size of the bonds issued. AIF may not have the flexibility to expend the whole curve. However, several steps can ensure the realization of the results in tenor and hence increase investor participation. Considering the proposed size of the fund and capital structure, debt issued by AIF will, from time to time, have reasonable size, marketing, and liquidity.

5. The scarcity value. AIF bonds will likely be the bonds with the highest value (the key international rating agencies). Surely this will be an opportunity for investors looking for diversification between regions and sectors.

6. Investor relations. Regular investor database updates will keep the market information about AIF's credit and lead to will higher liquidity.

According to various sources, foreign exchange reserves of the AIF members are as follows (Table 4).

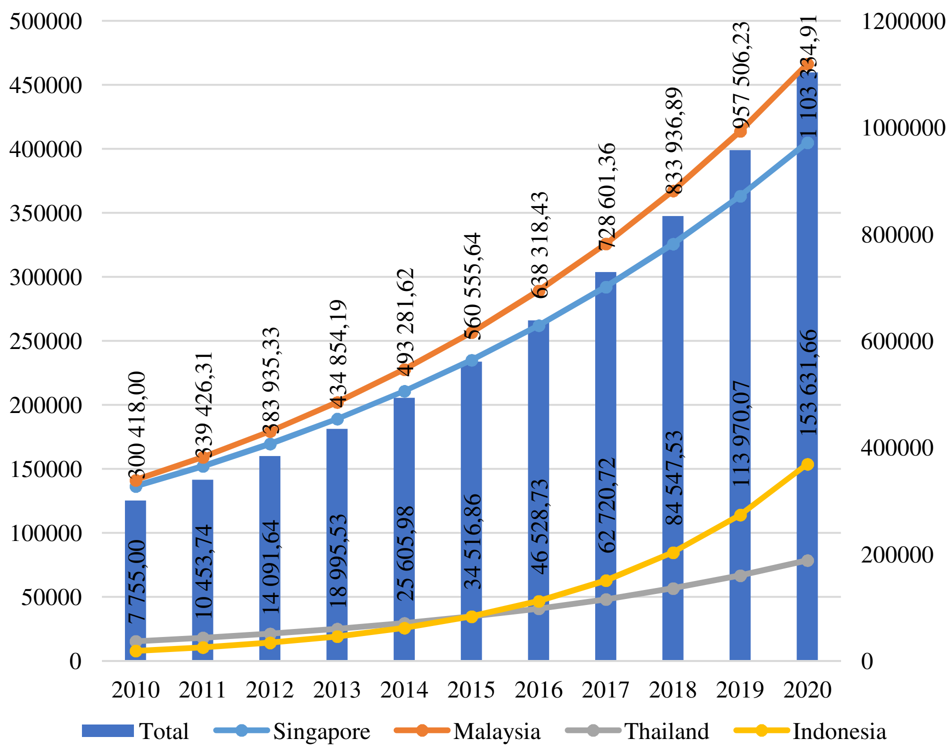
Table 4. **Foreign exchange reserves of AIF members, 2014** (CEIC, processed)

Country	Amount of reserve, bln USD
Indonesia	111.9
Malaysia	115.9
Philippines	79.5
Singapore	256.9
Thailand	157.1
Vietnam	33.8
Brunei	-
Cambodia	5.5
Laos	0.8

Total reserves of AIF member countries, excluding Brunei Darussalam, in 2014 reached 761.4 bln USD. With this amount of foreign exchange reserves, if assumed that 1% are placed in AIF bond, the funds collected will reach 7.61 bln USD. This amount exceeds the needs of the issuance of hybrid equity which is only 162 mln USD. Obviously, this amount issue needs further discussions among central banks of the AIF member states, considering that placement of reserves cannot interfere with currency stability and other needs of each member.

Meanwhile, the total assets of the pension funds of Singapore, Malaysia. Thailand and Indonesia in 2010 reached 300,418 mln USD. Using the assumption of average pension fund asset growth in 2002–2010 for each country, in 2016 the total pension fund assets of these countries will increase to 638,318 mln USD and to 1,103,334 mln USD in 2020.

According to the OECD study, as quoted by (Mercer, 2014), pension fund asset allocation of countries are very different. The lowest pension fund asset allocation of either public or private bond belongs to North Korea, which is only 1.6% and the highest is Japan, 36.3%. Concerning the hybrid capital issuance of 162 mln USD planned, it only takes 2.54% of pension fund assets of the 4 member countries of AIF to be met.



Description: The average growth of Singapore pension fund asset in the period 2002–2010 was 11.5%, Malaysia – 12.7%, Thailand – 17.8%, and Indonesia – 34.8%.

Figure 2. **Projected total assets of pension funds of AIF members**
(Yu Wei Hu, 2012; processed)

In the context of bonds issuance, the most important thing to be considered by AIF is the risk-sharing mechanism so that bonds become attractive for investors. AIF should be able to ensure security over the assets of the infrastructure project. To increase bonds' attractiveness, additional tools for partial credit should also be made to attract capital market investors. For example, the ability to separate the infrastructure project debt between senior and subordinate stages. This separation will provide certain comfort for institutional investors holding bonds for a long term.

AIF may utilize financial statements of infrastructure projects and effectively ensure the risk of long-term loans for the selected projects. Credit guarantee may also be applied for a specific period, such as during the construction period.

Conclusions and recomendations. Although AIF had been running for two years, there are a lot of obstacles. These include organizational problems, capital structure is still small, the system of funds distribution (project pipeline) are not strong enough seen from the minimum diversification of borrowers, loan value is still below the allocation level, and also lending rates are still not competitive yet as compared to other international financing institution offers.

In the long run, AIF will issue hybrid capital of 162 mln USD. Therefore, AIF uses foreign exchange reserves in each member state, it takes only 0.021% of the total reserves. Meanwhile, if it uses the pension fund, it takes 2.54% of the pension fund assets of only 4 AIF members to be met.

Based on the findings in this study, the recommended strategies that can be pursued by AIF are as follows:

1. AIF should open a chance of collaboration with various MDBs such as the Islamic Development Bank (IDB), the World Bank (WB) and other MDBs, with consideration of cheaper administrative costs. Through this cooperation, it is expected to strengthen the AIF capital structure, so that funds distributed will be greater.

2. To meet the financing needs of the project pipeline in the period of 2018–2020, AIF estimated 485 mln USD shortfall in funds. This shortfall will be covered by additional dues of the member countries with details in 2018 amounting to 162 mln USD, 161 mln USD in 2019 and 162 mln USD in 2020. The additional scheme that can be taken is equally dividing between the countries or basing on a percentage of the initial capital so it won't change the voting power of AIF members.

3. In the long run AIF can raise capital through bonds issuance, with the main objective of central bank foreign exchange reserves of each AIF member and pension funds. The percentage amount of foreign exchange reserves placement of a central bank needs to be discussed further, so this placement will not impact currency stability of each member state.

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