PROCEEDING

HIGH-LEVEL POLICY DIALOGUE AND INTERNATIONAL RESEARCH SEMINAR

Theme:

"Financial Sector Development and The Future of Finance"

Bali, October 12th 2018 and October 14th 2018

Speakers:

High-Level Policy Dialogue
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Joseph E. Stiglitz
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International Research
Seminar

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Dr. Sumit Agarwal
Dr. Dorothe Singer
Dr. Tianyue Ruan
Dr. Irwan Trinugroho
Dr. Ulrich Volz
Dr. Poppy Ismalina
Dr. Emilio Bisetti
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Departemen Riset Sektor Jasa Keuangan Otoritas Jasa Keuangan

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"Financial Sector Development and The Future of Finance"

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FOREWORD



FOREWORD

Dear Esteemed Readers,

I am delighted to write this Foreword to the Proceedings of the High-Level Policy Dialogue and International Research Seminar, the two primary events that OJK has conducted in parallel to the IMF-WBG Annual Meetings in Bali-Indonesia on October 12th and 14th, 2018.

We selected the theme, Financial Sector Development and the Future of Finance, to highlight the current advancement of digital technology in the financial sector and increasing awareness of ESG (environment, social, and governance) factors among financial markets and institutions.

The events brought together policymakers, researchers, and stakeholders in the industry to interact and discuss on new emerging issues in the global financial sector, particularly on the topics of digital finance, financial technology, sustainable finance, and financial policies. As part of our efforts to strive toward research-based and evidence-based policies going forward, OJK took the initiative to invite prominent experts from various countries to the events, including Joseph Stiglitz, Nobel Laureate in Economics.

The Policy Dialogue and International Seminar events are both a testament of our commitment to build strong



research culture in our organization and enhance effective policy formulation in Indonesia's financial sector. The speakers and participants all helped to make the Policy Dialogue and Research Seminar as outstanding as they have been.

This Proceeding is an excellent reference for all policymakers and researchers in the industry as well as academia. I hope this book will be an impetus to further research work in various areas of the financial sector.

We thank all speakers and participants for their valuable presentation and discussion during the course of the events. We look forward to meeting all of you again in the future.

Wimboh Santoso

Chairman of OJK

PREFACE



PREFACE

Digital Revolution and Sustainability. These two topics have become the central theme of the IMF-WB Annual Meetings in 2018 for "Harnessing disruption to shape inclusive economies of the future". Over the last decade, digital technology has emerged across many sectors of the economy and has largely been perceived as a new key to unlock the global challenges in sustainable development. Technological advancement in existing institutions and new emerging industry in technology startups have helped financial inclusion in many countries around the world with better access to affordable financial services and products. Hence, harnessing the potentials of digital innovation to solve some of the world's most pressing problems development should be of utmost importance to governments and financial authorities around the world.

From micro perspectives, the benefits of digital technology have particularly been well observed in the financial sector as it drives financial innovations toward faster rate of delivery in services and higher quality of products. Going forward, we will continue to observe rapid transformation of the financial sector through digital innovation, and so the question that we should be posing ahead is not to accept or ignore it, but how to do it.

Digital innovation, however, will not automatically lead to long term economic prosperity and sustainability. There are counterproductive impacts due to technological advancement. Technology is often associated with the high-income sgroup. Hence, its



consequences might lead to worsening disparity across the population and, in a global setting, widening imbalance between advanced and developing countries. As a result, digital innovation in all sectors of the economy requires proper policies that are responsive and inclusive to make it beneficial to everyone in the new global digital economy.

In addition to digital advancement, the awareness of sustainable development by markets and institutions around the world has increased significantly over the past decade. We have observed the launching of the Sustainable Development Goals (SDG) by the United Nations in 2015 to push for more participation of all countries in the improvement of economic welfare and quality of life while protecting the environment and social justice. The targets of SDG range from poverty climate change elimination. mitigation, improvement in all walks of life on land and below water. For mankind, the ultimate goal will be to experience better quality of life in an inclusive, equitable, sustainable socioeconomic environment by the year 2030

Given this ever-changing global landscape, the Indonesia Financial Services Authority (OJK) has taken an initiative to conduct a series of events in parallel to the IMF - WB Annual Meeting 2018 to facilitate a special discussion forum for targeted policymakers, academics and industries in the financial sector to share the most current development of policy and research work that have been done on the impact of digital revolution and progress of sustainable development. Hence, on 12 and 14 October 2018, we conduct the OJK High-Level Policy Dialogue and the International Research Seminar with



an overarching theme of "Financial Sector Development and the Future of Finance." This theme is selected in recognition of the importance of sustainable development and the emerging digital revolution around the world.

The OJK High-Level Policy Dialogue is particularly intended to provide a forum for senior policymakers, world-renowned academics, and financial industry executives to discuss on the progress and challenges of SDG and the digital revolution along with their impact on the global financial sector. Meanwhile, the OJK International Research Seminar provides a forum for researchers, academics, policymakers and industry players to hear about the most current research in new emerging topics ranging from digital finance, financial technology, sustainable finance to financial markets and institutions. A total of eight research papers are presented in four panel sessions by academics from Indonesia as well as overseas universities.

This Proceeding contains the written version of discussions and presentations from the Policy Dialogue and the Seminar. The book provides an opportunity for participants to revisit key takeaways from the speakers while the rest of the readers can quickly engage themselves in the discussions and presentations even though they did not attend the events. We sincerely hope that the Proceeding will be a useful reference for all readers to expand their knowledge, embrace the new emerging issues in sustainable development and digital revolution, and leap forward into a more efficient global environment.



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INTRODUCTION



INTRODUCTION

Background

Technological advancement has transformed the financial sector at an accelerated pace over the past decade. The emerging wave of digital technology has driven financial innovations in many forms across the banking and insurance industries, capital markets, and payment system, among others. These innovations make the process for intermediary and transactions normally happen in the traditional financial system more efficient as customers continue to demand better products and services, seamless experiences in accessing them, and more value for their money.

The impact of technology, however, remains an ongoing debate in the financial sector. One may argue that the use of technology can deliver efficiency for existing financial institutions and enhance financial inclusion. Banks, insurance and other financial firms can also collaborate with financial technology (fintech) start-ups to deliver products and services more effectively to current as well as new consumers. A report by Woodside Capital Partners (2018) highlights that the estimated total revenue of global financial technology industry can reach USD14 billion and grow up to 50% per year until 2023. Nonetheless, despite the rapidly growing number of fintech start-ups, challenges remain ahead as their emergence may become disruptive to existing firms. As a result, in-depth research in fintech and digital finance is needed to further examine the risks and contribution



of current and future innovations in the financial ecosystem.

In capital markets, we have observed the use of technology in the forms of artificial intelligence and large data computation that has pushed forward the frontiers of research and applications in finance. Large amount of order book data is used in market microstructure research to examine investors' behavior and trading strategies. At macro level, demand and supply projection of funding needs in financial markets can be simulated to estimate financing gap in the domestic financial system. Hence, with better technology for computing power and data storage, further empirical and experimental research in finance can be done to produce more accurate analysis of the financial system.

Furthermore, in addition to emerging technological advancement in the financial sector, markets around the world have started to acknowledge the impacts of environment, social, and governance (ESG) sustainable growth. Institutions have particularly become more aware on sustainability issues following the United Nations program for sustainable development goals (SDGs), which aimed to establish a new global framework for sustainable growth in various sectors of including financial the economy, the sector. Nevertheless, the impact of ESG issues on growth performance remains open to question and, hence, require further research in exploring sustainability issues at firm level.



It is for that reason, that Otoritas Jasa Keuangan (OJK) initiate the High-Level Policy Dialogue and The International Research Seminar on Financial Sector Development and the Future of Finance, to highlight the importance of technological advancement and its impact on sustainable development goals. It is expected that through the exchange of knowledge and experiences among prominent academics, experts, policymakers and industry professionals in the seminar, hidden potentials of financial markets and institutions can be unlocked to address future issues and challenges in a rapidly changing global financial landscape.

OJK High-Level Policy Dialogue and International Research Seminar

The objectives of these series of event were the followings:

- Facilitate forum for academics, experts, policymakers, and industry professionals to engage in discussion and knowledge sharing on new emerging topics in the financial sector.
- 2. Facilitate forum for invited academics and experts to showcase their work aimed to provide policy guidance and recommendation for the financial sector.
- Foster new emerging areas of financial research and build a bridge between theoretical and empirical developments in these areas and their application in practice.
- Explore different financial policies formulated in emerging and advanced countries to achieving the goals of sustainable development and



- navigating financial sector through the "disruptive" advances in digital technology.
- 5. Explore opportunities for future collaboration between academics, experts, and policymakers from various disciplines.
- Promote awareness for better policy formulation based on research and faster adaption to the rapidly changing global environment.

Program Structure

The order of presentations in this Proceeding book closely follows the program structure of the Policy Dialogue and Seminar. The series of events starts with the High-Level Policy Dialogue, which discuss the progress and key challenges of the Sustainable Development Goals (SDG), and the impact of digital advancement to the global financial sector. The Policy Dialogue discusses the two topics among four panelists for 20 minutes each, followed by 10 minutes Q&A session for the audience.

The OJK International Research Seminar is conducted on the second day. The Seminar is divided into four panel sessions with topics on digital finance, financial technology, sustainable finance and financial market and institutions. Each panel consists of two academic experts presenting their most current research work, followed by 5 minutes Q&A session for the audience.

Panel session I is opened by Dr. Bejoy Das Gupta (eCurrency) presentation about the impact of digital



revolution to financial inclusion and sustainable development. The second presenter is Dr. Sumit Agarwal (National University of Singapore) who discussed India's currency demonetization in 2016. Last presentation is done remotely by Dr. Dorothe Singer (World Bank) who shows higher financial inclusion level due to digital revolution in many countries.

Lending by non-banking financial institution research in China and Indonesia makes up the main focus in Panel Session II. Dr. Tianyue Ruan (National University of Singapore) shared her recent research work on shadow banking in China, continued by Dr. Irwan Trinugroho (Universitas Sebelas Maret) presentation on the joint research work with OJK relating to the newly emerging fintech online direct lending industry in Indonesia. Both research work evaluate the economics of the new emerging lending business model and its impact to financial inclusion.

Panel session III focuses on issues of sustainable finance. Dr. Ulrich Volz (University of London) provides insight on shifting investment toward financial products related to sustainability and the importance of green transformation. Furthermore, Dr. Poppy Ismalina (Universitas Gadjah Mada) reveals the outcome of the joint research work with OJK on the growing awareness of the Indonesia insurance industry in implementing sustainable insurance products.

In Panel IV, Dr. Emilio Bisetti (Hongkong Universities of Science and Technology) presents his recent research



work on the value of regulation in banking industry. Dr. Deddy Koesrindartoto (Institut Teknologi Bandung) closes the session with recently joint research work with OJK on investors behavior in Indonesia stock exchange.

HIGH-LEVEL POLICY DIALOGUE

Bali, October 12th 2018

SHORT BIOGRAPHY OF SPEAKERS & MODERATORS



Wimboh Santoso

Chairman, OJK



Wimboh Santoso is Chairman of the Indonesia Financial Services Authorities (OJK) since July 2017. Santoso is also Chairman of the Indonesia Economic Sharia Community (MES) since March

2018, which aims to develop and support sharia economy in Indonesia.

Previously, he served as President Commissioner of Bank Mandiri from December 2015 to 2017. Previous to that Santoso served as Executive Director of the International Monetary Fund from 2013 to 2015, and Head of Bank Indonesia Representative in New York from 2012-2013.

Wimboh began with working at Bank of Indonesia as banking supervisor staff in 1984, and has since held important roles at the central bank, including the Head of Internal Research Bureau from 1993-1994, Chairman of the Banking Transformation Program from 2001 to 2003, Head of Financial System Stability Bureau from 2006 to 2009, and Director of Banking Research and Regulation from 2010 to 2012. He has served as Director of Indonesian Banking Development Institute (LPPI) since 2016.



Wimboh received his Ph.D in Banking and Finance from the University of Loughborough (UK) in 1999; M.S. in Business Administration from the University of Illinois (US) in 1993, and bachelor degree in Economics from Universitas Sebelas Maret in 1983. Santoso regularly teaches at leading universities in Indonesia and has written various journal papers and articles on financial stability system.



Joseph E. Stiglitz

University Professor, Columbia University



Joseph E. Stiglitz is University Professor Columbia at University (US). He is also the co-chair of the High-Level Expert Group the on ofMeasurement Economic

Performance

Social Progress at the OECD, and the Chief Economist of the Roosevelt Institute. A recipient of the Nobel Memorial Prize in Economic Sciences (2001) and the John Bates Clark Medal (1979), he is a former Senior Vice President and Chief Economist of the World Bank (1997-2000) and a former member and Chairman of the US President Council of Economic Advisers (1993-1997). In 2000, Stiglitz founded the Initiative for Policy Dialogue, a think tank on international development based at Columbia University. He has been a member of the Columbia faculty since 2001 and received the highest academic university's rank (University Professor) in 2003. In 2011, Stiglitz was named by Time magazine as one of the 100 most influential people in the world. Joseph later served as president of the International Economic Association (2011–14).



Known for his pioneering work on asymmetric information, Joseph's work focuses on income distribution, risk, corporate governance, public policy, macroeconomics and globalization. He is the author of numerous books, and several bestsellers. His most recent titles are Globalization and Its Discontents Revisited: Anti-Globalization in the Era of Trump (November 2017), The Euro: How A Common Currency Threatens the Future of Europe (November 2017), and The Great Divide: Unequal Societies and What We Can Do About Them (April 2016).

Joseph received his Ph.D from Massachusetts Institute of Technology in 1967 and B.A. from Amherst College in 1964.



Huw Van Steenis

Senior Advisor, Bank of England



Huw Van Steenis
is Senior Adviser
to the Governor,
Bank of England
since May 2018.
He has been
recognized as one
of the most
influential

advisers on financial services in Europe. Previously, he served as Global Head of Strategy at Schroders. Prior to that he was Global Head Banks and Diversified Financials Research at Morgan Stanley where he and his teams won numerous awards, including being voted #1 in investor surveys 12 times and twice Starmine's stock picker of the year for financial services. He coined several terms that have become industry standards, including the 'Asset Management Barbell' and the "Balkanisation" of banking markets.

Huw has served on various Boards and Committees, including the World Economic Forum's Agenda Council for Financial Services and the Fintech group; the European Central Bank's Contact Group on Macro-Prudential Policies and Financial Stability, the IIFs Market Monitoring Group, and the Board of the English National Opera.



Huw received his MBA from INSEAD Business School (France) in 1994 and M.A in Politics, Philosophy and Economics from Trinity College (UK).



Sean Kidney

CEO, Climate Bonds Initiative



Sean Kidney is CEO and Co-Founder of the Climate Bonds Initiative, an international NGO working to mobilise debt capital markets for climate solutions. He is also Chair of the

Climate Bond Standards Board, whose members represent \$34 trillion of assets under management, Consultant (Green Bonds) to the United Nations Secretary General, Consultant to the European Commission's Directorate General of Climate Change, and Consultant to the People's Bank of China and the government's Development Research Center on how to grow green bonds in China.

Sean is a member of German International Aid Ministry's TRANSfer Expert Group on "Using Climate Financing to Leverage Sustainable Transport; Mercer's Sustainability Opportunities Fund Advisory Panel; The Canadian Corporate Knights Capital Advisory Council; Carbon War Room's Building Efficiency Advisory Board; and The Partnership on Sustainable Low Carbon Transport's (SloCAT) Financing Framework. He is also a member of the 2013 Commonwealth Secretariat's Expert Committee on Climate Finance.



Kania Sutisnawinata (Moderator)

Senior Anchor, MetroTV



Kania Sutisnawinata started her journalistic career at SCTV as an English News Presenter in 1998. In 2000, she began her career at MetroTV, the first news TV channel in Indonesia, by hosting

mainly business and financial news program until she was trusted to host MetroTV acclaimed political talkshow, Today's Dialogue.

Kanja was also chosen to be the first co-anchor with former CNN anchor Dalton Tanonaka to host Indonesia Now, The First English News Program to be distributed outside of Indonesia. She was also nominated as Best News TV anchor for The Asian Television Awards. In 2012, Kania also served as Talent Manager at MetroTV. In 2012 - 2015, she continued her career as leading anchor at Bloomberg TV Indonesia. In 2015 - 2016, she also worked as Vice President of Corporate Communication and CSR at PT Bank Rakyat Indonesia. In November 2016, she returned to MetroTV as Deputy Editor in Chief and Senior Anchor. During her career as a television anchor, Kania has conducted interviews with national and international leaders, such as US



State Secretary Mike Pompeo, President of Afghanistan Ashraf Gani, World Bank President Jim Yong Kim, and the IMF Managing Director Christine Lagarde.



PROCEEDING



INTRODUCTION

Moderator:

The future of finance is here. With many digital innovations across financial services, we are now trying to catch up with the right regulations and policies. At the end of the day, financial technology is supposed to be part of the solutions while it may cause disruptions to the economy.

But let us start the discussion with the Sustainable Development Goals 2030 agenda. Although awareness has been increasing and strategies has been aligning after three years of the establishment of SDG, we are seeing that challenges still remains for both developing and developed countries to achieve the goals on time. Therefore, the main question is on how to optimize the financial technology to support the agenda of sustainable economic growth and financial inclusion.



First Session

Moderator:

What do you think of the progress of sustainable development goals in its third year now? What are the key challenges so far to achieve those goals in a global scale and in your own respective country?

Wimboh Santoso:

Due to the sheer size of its population, Indonesia has to push its economic growth to an optimum level to provide enough supplies in order to fulfill the demand from the basic needs of its population. However, it is not easy to maintain the economy to grow at such level while conserving the environment. In order to achieve a sustainable economic growth, it is important to enhance the participation of all economic agents to conserve the environment. And one of the crucial efforts to promote the agents' participation is to enhance their awareness in terms of potential social cost that must be paid by the future generation as an effect of the current practice of irresponsible economic activities.

Indonesia is fully committed to achieve the SDG in the future. And, OJK itself plays strategic role to ensure that Indonesia can achieve an optimal level of economic growth without hampering the effort to conserve the environment. One of the efforts which has been done by the OJK is the enactment of OJK Regulation as a follow up to the Presidential Regulation, in order to assist the implementation of SDG-related strategy in the financial services industry. Furthermore, OJK has been cooperating with other government agency in terms of



the provision of regulatory incentives which can push the players in the financial services industry to consider the effect of their business activities to the environmental sustainability. Meanwhile, in terms of the financial instrument, OJK has also launched the green bond and the green financing program. I believe that with these coordinated effort between the public and the private sector, Indonesia should be able to achieve the SDG in the future.

Joseph Stiglitz:

In terms of environmental sustainability, the policies of the developed countries have been one of the obstacles to the achieve the SDG. One example of such policies is USA's decision to leave the 2015 Paris Agreement, which has been a disappointing drawback in the effort to conserve the environment through minimizing the effects of climate change. However, there is still a significant part of economic stakeholders in the USA which is fully committed to fulfill their obligation based on the Paris Agreement in order to minimize the effects and mitigate the risks of climate change.

On the other hand, in terms of economic sustainability, USA's economic policies can potentially disrupt the stability of global economic growth. One example of such policies is the overly expansive economic policy that pushed the GDP deficit ratio to a higher level, thus causing a significant hike of interest rate as a consequence of higher borrowing requirement to finance the deficit. Furthermore, this rising interest has been a challenge that negatively affect the economic growth of the developing countries, including Indonesia. As a result of that external factor, policymakers in the



developing countries are now faced with difficult policy options in order to sustain the countries' economic growth. 3 things that can be done by the policymakers are: raise the interest rate while facing the risk of halting the economic growth, let the interest rate falls while having to accept higher cost for import and rising inflation, or manage the current through macroprudential regulation, capital control, tax capital inflow/out, and intervention of the exchange rate.

And in terms of social sustainability, there is also an issue of inequality. Welfare inequality has been getting worse in the American society, especially after the global financial crisis. The quantitative easing policy has created a stock market bubble which helps the people at the top of the pyramid to get richer. The case of welfare inequality also happens in a lot of other country, especially due to the failure to achieve inclusive economic growth. Moreover, unfair taxation policy is one the things which has been aggravating the inequality in the society. For example, government in the USA decided to give a tax cut for the billionaire while raising the tax for the middle class. Not to mention that despite the fact that life expectancy has been declining, there are still more than 13 million of American people without the support of health insurance. Therefore, at the time being USA has been setting the wrong example to the rest of the world in terms of solving the issue of sustainability.

Huw van Steenis:

Two big issues from the central bank's point of view:

1. How the financial system adjusts to the low carbon economy?



2. How can it help to improve the awareness of the stakeholders in the financial services industry so that they have a longer-term perspective than what has been normally done by the top management of the companies in the industry?

The case of financing the low carbon investment is very clear. Indonesia has taken the lead through the issuance of green bond, while China alone estimates that there are 600-billion-dollar worth of financing which is available to support the green investment project for the next 20 years. Therefore, for the central bank, it is important to safeguard the financial system against climate change risk by ensuring that all participants of the financial system are aware of such type of risks. However, lack of awareness is one of the primary constraints to ensure the fulfilment of SDG. A study from the Bank of England states that while 70% of the insurance company executives are worrying about the effect of climate change, only 10% of the banking sector executives are worrying about such effect. Therefore, it is important for the policymakers, especially the supervisors of financial services industry, to promote the importance of putting the long-term effect of climate change and global warming as key consideration in making business decision, to the key stakeholders of the financial services companies.

The second is to try to bring an orderly transition toward the incoming trend of low carbon economy. In order to do so, the Bank of England has been very supportive of the task force on climate related financial disclosure which is led by the FSB, to disclose types of asset which are related to the management of climate risk, thus helping to provide the necessary information to the



market in order to start mobilizing the available capital in the private sector to finance environmentally-friendly projects. The project has shown a good start, due to the involvement of 450 companies with 8 trillion of market capitalization, and over 100 trillion of asset. In addition, in the UK there has been a consultation program with the bank and insurer to understand the action plan which has been implemented by the banks and insurer in order to anticipate and mitigate the effect and risks of the climate change.

Sean Kidney:

Albeit the fact that Indonesia has been showing a good progress towards the achievement of SDG, the progress to achieve the sustainable economic growth on the global level has been relatively slow. And on top of that, there is still a case of welfare inequality between the world's population, which shows to indicate that the current economic growth has not been equally beneficial to all part of the population. As an example, there is a stark contrast on the price of a cup of coffee sold in the developed countries, with the income received by the farmers in the developing countries. Furthermore, there is a contradicting phenomenon between the existing pace of technological advancement with the fact that some part of the world's population still does not have the access to fulfill their basic needs, such as: education and energy, in order to improve their state of welfare in the future.

In terms of climate change, the progress to mitigate the effects and risks of climate change has been far from ideal. Based on the Intergovernmental Panel on Climate Change (IPCC) report, there has been no significant



progress during the past 25 years which supposed to be achieved in order to reduce the effects and mitigate the risks of climate change, despite there is a possibility that between one-third to two-third of the world's population could die by the end of this century due to plague, famine, and war.

Furthermore, Indonesia is one of the most vulnerable countries in the world in terms of exposure to to the effects and risks of climate change, which partly caused by the level of emissions in the developed countries, such as: USA, Europe, and China. Some of the effects from climate change are: weather volatility, dramatic change in terms of food production, and change of population big cities due to the drop of productivity in the agriculture sector.

The crime is that we know exactly what to do to prevent these things but chose to go with different direction instead of to properly manage the effect and mitigate the risks of climate change. Several examples which showed the lack of progress in terms of handling the effects of climate change are: the implementation of energy policy which still focused on the use of types of energy that is not environmentally-friendly, reforestation program which has not been optimal thus hampering the effort to improve the air quality, and investment allocation which is still heavily reliant on the low risk type of asset in the developed countries and therefore limiting the financial capacity to support the development of environmentallyfriendly economic activities, for example: 21% of European institutional investment capital is invested in assets with zero or negative rate of return.



Second Session

Moderator:

In parallel to these development goals, we have seen digital revolution across many markets and services in the global economy. How do you see the advancement of digital technology around the world or in your country, and how they "disrupt" the economy and financial sector?

Wimboh Santoso:

On one hand, the development of information technology can have a positive impact by facilitating individuals to conduct a wide range of economic activities. From the consumer side for example, the development of information technology opens a wider access for consumers to obtain various types of goods or services, including those which are provided by the financial services industry. Indonesia is a big country, in which a big part of its population lives in the rural area. Therefore, Indonesia can optimize the use of technology to reach out to rural society. For example, the practice of branchless banking in Indonesia makes it easier for people in remote areas to conduct banking transactions, even though they live far away from the location of the bank's branch office. Moreover, the government can also employ similar feat of technology in order to deliver the social benefit to the part of population who live in the rural area.



However, we have to be mindful on the effect of technological development to the economy. For example, technological developments encourage simplification of business processes which require lesser involvement of human resources, and therefore may potentially create disruption to the labor market in the economy, especially to the administrative type of jobs. Therefore, it is important to setup the policies with the purpose to maintain a balance between the efforts to optimize the benefits obtained from technological developments, and the efforts to manage technological developments so that it will not disrupt the stability of the economy. Furthermore, we also have to emphasize on the use of technology to educate the society in terms of financial literacy. As part of its commitment to manage the effect of the technological development to the financial services industry, OJK has issued the fintech principle guideline, which includes: transparency, fairness, responsibility, and accountability. The main objectives of this policy are to ensure that the fintech industry can grow while upholding the importance on the protection consumer's interest.

Joseph Stiglitz:

In the developed economies, technological developments were not always followed by increasing level of productivity. This is partly due to the use of technology with the intention to exploit consumer data without aiming to provide better products or services, but to carry out unfair business practices that is harmful to the consumers, such as the practice of discriminatory pricing.



Moreover, technological advancement has also been associated with the capability to increase market power. Therefore, instead of creating a higher productivity in the economy, the development of technology contributed to the inequality discussed earlier. For example, with the technological advancement, the cost of moving money from the buyer's account to the seller's account should be a fraction of a cent. However due to an extensive monopoly power, credit or debit card companies can charge huge amount of money thus are able to make billions of dollars from the money transfer business. A typical grocery store in the USA has to pay 50% of its profit to the banks for that type of service. Therefore, there is an enormous potential from the technological advancement which has not been realized.

It is remarkable that Kenya has been one of the few countries that is able to optimize the benefit of technological developments to encourage the progress of its financial sector. And moreover, it is also remarkable to know that USA, as part of the developed economies, has been failing to make the most from the development of technology. Therefore, in order to deal with this phenomenon, a proper policy and regulatory framework is required, which should include regulations in terms of confidentiality of customer data, fair business competition, and so forth.



Follow Up Questions

Moderator:

Can you describe policies (financial or monetary) that have been formulated around the world or in your country to mitigate the "disruptive" impact of digital transformation on existing financial markets and institution, and how to maximize its use to enhance financial inclusion and sustainable/equitable growth in this digital era?

Huw van Steenis:

There are 5 tests which can be used to evaluate whether an innovation is beneficial or not to the financial services industry. A good innovation in the financial services sector is the one that can provide convenience for consumers to be able to obtain better quality financial services, at a more affordable cost, and in a shorter period of time, such as the mobile payment system that has been implemented in Kenya. Moreover, a good innovation creates a level playing field for all economic agents, such as the Exchange-Traded Fund (ETF), which provides an opportunity for novice investors to optimize investment returns based on aggregate market movements, similar to what has been done by professional investors. And the last criterion is the extent to which these innovations have positive or negative side effects on the economy. In relation to this criterion, cryptocurrency transaction has the potential to cause negative side effects on the economic



sustainability, due to the fact that its transactions require very large electricity resources compared to the scale of transactions that are still relatively small. The most important thing is that as a financial regulator, the main objectives are not to stop everything, but to make sure that the private sector is able to do things which are generally beneficial to the society.

Sean Kidney:

The fact is that there are investors around the world who are willing to invest in the green investment project, as long as the project meets their investment needs in terms of rate of return while protecting the environment at the same time. One of the examples of such project is the green sukuk in Indonesia. Another example is that I have got 63 trillion dollars which are willing to invest in the climate-change related project. Therefore, there is an unbelievable opportunity which can be optimized by the emerging markets, including Indonesia, in order to help managing the effects and mitigating the risks of climate change to their economy.

Moreover, I have to congratulate OJK with the issuance of the green bond and the promotion of islamic finance, because these are part of the solutions to achieve economic sustainability.

The fintech development should be able to connect large capital pools and small-sized loans, while reducing the transaction cost to encourage better financial inclusion in developing countries, especially due to the high rate



of penetration in terms of mobile phones in these an example, the technological advancement in the form of mobile technology could open up the opportunities for insurance companies to develop disaster insurance products for farmers in Indonesia with cheaper premiums and faster claim payment facilities, thus the insurance industry can help to protect the farmers against the impact of various catastrophic disasters. Therefore. due technological advancement, now we can do things that we couldn't do 2 years ago. I know that the capital is there and looking for solutions, and the regulators are getting it. Bank of England has been a global leader in terms of the sustainability issue, while OJK is also one of the global leaders in terms of the enactment of green bond regulations. Therefore, all of the required ingredients to create solutions for the sustainability issues are there, however it is up to all of us whether to create and implement the solutions or not.



Questions and Answers Session

Question 1: Bona (USAID)

- 1. To Mr. Stiglitz, what can be done from the regulatory standpoint in order to achieve economic sustainability if doing the right thing is not enough to withstand the effects of external shocks to the economy?
- 2. To Mr. Santoso, what can be done by the OJK to follow up on the existing regulatory framework which has already supported the sustainable finance principle.

Answers

Joseph Stiglitz:

A good mix of micro and macroprudential policy is required to anticipate the effect of global volatility. One example of the important macroeconomic policy is in regard to the capital account management. Moreover, from the regulatory perspective, it is also essential to focus on the consumer protection, especially to avoid the exploitation of consumer's data in order to acquire larger market power, which in the end can disrupt the creation of fair competition in the market. In this case, unfair market competition may lead to higher inequality in the economy. As for the case of the growing peer to peer lending industry, it is important to setup a regulatory framework which includes the requirement in terms of a proper creditworthiness checking process in order to protect the lender as one of the main stakeholders in that industry.



Wimboh Santoso:

My first answer is related to the current regulatory framework in regard to the sustainable financing, such as the green bond regulation, is merely a start to set up the market infrastructure which can link the supply and demand of fund which is available and required to finance the environmentally-friendly projects. On the demand side, it is important to do a thorough and proper assessment to ensure that the project is qualified to be classified as an environmentally-friendly project, thus is able to absorb the available supply of fund. Previously Sean has already mentioned the potential of the global supply on the green investment project is very huge.

My second answer is related to the policy option which implemented improve Indonesia's can be to macroeconomic fundamental. Due to the fact that Indonesia as a populous country, there is a need to provide basic needs for its population, especially food and energy. Therefore, it is important to develop the technology which can assist the growth of agricultural and energy sector in Indonesia. The lack of technological development to support the growth of these crucial sectors, has been one of the reasons of why Indonesia is heavily reliant on import to fulfill the such types of needs of its population, which causing the deficit on the Indonesia's current account.



Meanwhile, in a shorter-term perspective, capital flow management can be utilized to fend off the effect of volatility in the global economy, since it is essential in order to ensure the smooth transition in the midst of uncertainty in the global economy.

In regard to the fintech industry, the main objectives of OJK regulatory framework are to protect the consumer, both from the lending and borrowing side, and to manage the growth of the industry to ensure that the growth of the industry will not cause unnecessary disruption the overall economy. Several key principles which are used as the basis of the regulatory framework of peer to peer lending industry in Indonesia are: transparency (to make sure that the consumers fully understand the risks of peer to peer lending), accountability (to ensure who is responsible for such type of service), and fairness (in terms of pricing of the service).

Question 2: Tatat (Hivos-South East Asia)

To Huw van Steenis, is there any possible explanation behind the results of Bank of England's study which shows low awareness of the banking industry in terms of the climate change?

To Wimboh Santoso, how to ensure the affordability aspect of technological innovation in the agriculture industry so that such innovation can be beneficial to the small-scale farmers in Indonesia?



Answers

Huw van Steenis:

I will try to answer Mrs. Tatat's question in terms of challenges to improve the awareness to the risks of climate change. One of them could be caused by the fact that average tenure of the top-level management in the financial services industry is too short, which is less than 5 years, thus forcing the management to prioritize the achievement of short and/or medium business targets over the feasibility on the longer time frame. The second challenge is that the way that we produce rules and regulations based on something that we have learn from the history, thus tend to be backward looking, while the effects and risks of climate change are things that we have never encountered before, thus require the regulators to be more forward looking in order to properly manage and mitigate such effects and risks. Therefore, there are several important considerations for the Bank of England in terms of formulating its policies are:

- 1. The policymakers have to set a clear policy goals and identify challenges that can hinder the achievement of that goals.
- 2. Policymakers need to prepare the required infrastructure to ensure the achievement of policy goals, such as building a comprehensive database in order to support the decision-making process of the top-level management in the financial services industry.



- 3. Policymakers need to prepare an incentive scheme to encourage changes in the business processes to support sustainable economic growth.
- 4. Supervisors of the financial services industry need to carry out stress tests on a regular basis, to monitor the resilience of the financial services industry against various downside scenarios that might occur in the future.

Wimboh Santoso:

- Again, I want to re-emphasize the importance of enhancing Indonesia's competitiveness through the adoption of technology, especially in the agriculture sector.
- 2. There is a shift in the global economy from liberalization towards a more inward-looking policies as exemplified by the USA's trade policy. Therefore, instead of implementing a strict capital control, Indonesia is focusing its effort to manage the volatility to ensure a smooth transition for the domestic stakeholders towards the new normal in the global economy.
- 3. In regard to the competitiveness of the green bond, Indonesia is moving in a more flexible way instead of aiming to meet the highest standard of the bond market right from the beginning. The regulatory framework in terms of green financing scheme in Indonesia will be done gradually, which started out to enhance the awareness and literacy of the stakeholders in the economy in regard to the importance of conserving the environment.



Question 3: Miriam

- 1. How to ensure that the liberalization of financial services industry in Indonesia can be useful to the achievement of SDG?
- 2. How to overcome capital control restriction in order to handle the volatility in the global economy?
- 3. What is your view in terms of the profitability of green investment which is tend to be less profitable than the conventional investment?

Answers

Joseph Stiglitz:

Some forms of capitalism have been one of the reasons behind corrupt behaviors in the economy, such as: unfair business practice, manipulation, bribery, and etc. One of such behaviors is the Volkswagen's emission scandal, which showed that the company is more environmentally friendly than they really are. These kinds of behaviors have shown that there is a deep problem of morality in the corporate world. Therefore, it is important to realize that the way we shape our economy will have consequences that is beyond economics, but also social consequences.

I also have some concerns in regard to the free trade agreements which could potentially prevent a country to



come up with the best possible policy to protect its domestic interest. For instance, there is a restriction on a country to subsidize its own culture, thus France for example is prohibited from supporting its domestic filming industry. Moreover, some type of the restrictions could also limit the ability of the policymakers in a country to properly manage its financial system such as: restriction to impose policy on capital flow, restriction to regulate the derivative market, and etc. In Chile, for example, there was a case of exchange rate appreciation due to the capital inflow which due to implementation of quantitative easing policy in the developed economies, thus destroying Chile's exports. However, due to the restriction in the Chilean -American free trade agreement, Chilean government was not able to take a proper measure to control the flow of capital into their country. Therefore, I think that it is important to be fully aware that there are some examples of free trade agreement which tend to be more profitable to the foreign investors compared to the domestic stakeholders of the economy.

Sean Kidney:

The implementation of Islamic finance is important to ensure the achievement of SDG. The morality aspect within the islamic finance principle could be the potential solution which can promote inclusive and sustainable growth without having to sacrifice the environmental sustainability. Therefore, I urge the effort to improve Islamic financial inclusion through the development of the fintech industry, so that the concept of Islamic finance can be implemented in a broader scale.





















INTERNATIONAL RESEARCH SEMINAR

Bali, October 14th 2018



OPENING SPEECH by: Chairman of OJK

Assalamu'alaikum warahmatullahi wabarakatuh, Om Swastiastu, Namo Buddhaya, Good morning to all of you, Selamat pagi,

I am delighted to be here this morning to welcome all of you to our event OJK International Research Seminar: "Financial Sector Development and The Future of Finance" in conjunction with International Finance Corporation.

This research seminar aims to share the results of recent research from various international universities and OJK research with domestic universities, which addresses four research topics in the financial services sector that are currently emerging, which are: Digital Finance, Financial Technology, Sustainable Finance, and Financial Market & Institution. These research topics are very relevant to the current development in Indonesia financial sector, and perhaps also in other developing countries.

Research work on such topics is important to construct the right policy, as, without the right policy, there may arise some distortions in the stability of the financial system. Meanwhile, we can prepare ourselves by performing the four I's below:

1. **Innovative**. Do not use the old platform or experience, as the current global policy will never be the same as our expectation.



- 2. **Inclusive**. Explore the resources which have not been explored before, whether it is related with the rural area, micro sector, un-bankable people, tourism or even related to public policy that has been formulated by the government.
- 3. **Integrated**. Do not do things in isolation, but in integration. We must ensure that we are synchronized with other economic agents.
- 4. **Infrastructure**. Collaborate with the private sector, SOE and foreign investor to build hard and soft infrastructure across the country.

Similarly, research plays an important role in decision-making process. This is particularly true for policymakers like OJK since the impact of the policy implemented will be felt by many stakeholders. Policy taken without proper analytical process will only yield problems. Therefore, policies formulated by the regulator should be supported by comprehensive research that can take on various perspectives. Having tested and supported successfully by research, the policy is then ready to be implemented. This process is what we called research-based policy.

The research-based policy is even more relevant to today's ever-accelerating technological advancement in various aspects including financial technology (fintech). Of course, fintech is not the only area that we need to strengthen by research, but we also have other area of interest, such as sustainable finance, sharia financial institution and market, non-bank financial institutions, capital market deepening, and so on. The point is that we need to incorporate research in the decision-making



process to formulate policies in order to be successfully implemented and yield result as intended.

Unfortunately, research development in Indonesia has not yet shown encouraging sign. With this in mind, I urge the need to bolster the quality of our research. Today's seminar is part of the collaboration that OJK has made with academicians from all over the world. This is part of our efforts to strive toward research-based policies going forward. In this seminar, we invited speakers from academics who were experts in their respective field, while the seminar participants include academics, regulators, multilateral institutions, and industry players from domestic and overseas.

Last but not least, I am happy to learn that we will be discussing important research topics in this seminar. I am also grateful for our esteemed speakers and moderators who have taken the time from their busy schedule to come to Bali and share their views. My special thanks also to IFC for its support in this event.

For all distinguished participants, I hope that this research seminar will further enhance our understanding of what lies ahead in our financial sector. Please accept my best wishes for fruitful discussions. I hope you enjoy the rest of your stay in Bali and have a safe trip home.

Thank you.

Jakarta, 14 October 2018

Wimboh Santoso

















